This project is co-financed by the European Union and the Republic of Turkiye

Technical Assistance for "A Smart Network for Technology Transfer and Commercialisation with Funnel Model (SMARTNET)"

Contract No: TR14C2.2.05-04/001

EUROPEAID/140284/IH/SER/TR

SOFTWARE REQUIREMENT SPECIFICATIONS (SRS) AND DATABASE DESIGN DOCUMENT (DDD)

26.06.2023

REPUBLIC OF TURKEY MINISTRY OF INDUSTRY AND TECHNOLOGY

YTU

İTÜ

GEBZE

COMPETITIVE SECTORS PROGRAMME

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Document Control and Approval Sheet

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Contract Number	TR14C2.2.05-04/001
Reference Number	EUROPEAID/140284/IH/SER/TR
End Recipient of Assistance	Yıldız Technical University
Contract Signed	08.03.2022
Commencement Date	25.05.2022
Duration	36 Months
Prepared By	Technical Assistance Team
Date of Document	26.06.2023 (Please See Revision Information Below)
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Revision Information

Date	Revision	Notes and Changes
26.06.2023	1.1	Section on Licensing Requirements added per Request of ERA, Updated Module Workflows, Usage Scenarios and Database Design Sections to match the final state of the deployed SMARTNET Platform.
15.05.2023	1.0	Initial Revision

DISCLAIMER

This document has been produced with the technical assistance of the European Union under Technical Assistance for "A Smart Network for Technology Transfer and Commercialisation with Funnel Model (SMARTNET)" Project, Türkiye. Service Contract Number: "EUROPEAID/140284/IH/SER/TR".

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AI	Artificial Intelligence
API	Application Programming Interface
CA	Contracting Authority
CISOP	Competitiveness and Innovation Sector Operational Programme
DS	Decision Support
ERA	End Recipient of Assistance (Beneficiary)
EUD	Delegation of the European Union to Türkiye
GTU	Gebze Technical University
HKU	Hasan Kalyoncu University
ICT	Information and Communication Technologies
IP	Intellectual Property
IT	Information Technologies
ITU	Istanbul Technical University
KE	Key Expert
MIS	Management Information System
ML	Machine Learning
MoIT/DoEUFP	Ministry of Industry and Technology Directorate of EU Financial Programmes
OCU	Operation Coordination Unit
OCUD	Operation Coordination Unit Director
OS	Operating Structure
OIZ	Organized Industrial Zone
QA	Quality Assurance
R&D	Research and Development
RCOP	Regional Competitiveness Operational Programme
SME	Small and Medium Sized Enterprise
TA	Technical Assistance
TAT	Technical Assistance Team
TCD	Test Cases Document
TDZ	Technology Development Zone
TNA	Training Needs Assessment
ToR	Terms of Reference
TRL	Technology Readiness Level
TS	Test Specifications / Test Specialist
TTI	Technology Transfer Intermediary
TTO	Technology Transfer Office
YTU	Yıldız Technical University
WIPO	World Intellectual Property Organisation

1. INTRODUCTION

Under Component I of the **A Smart Network for Technology Transfer and Commercialisation with Funnel Model (SMARTNET)** project, one of the primary activities is **Activity 1. Establishment of TTI Network and Development of Institutional Infrastructure** which aims to establish and operationalize **SMARTNET** by delivering training, mentoring/consulting and fundraising services to the target groups for supporting them to commercialize their technology-oriented business ideas.

Activity A.1.1. Development of TTI Network Software Platform focuses on the design, development, and operationalisation of the **SMARTNET Artificial Intelligence Based TTI Network Software Platform (SMARTNET Platform)** which consist of two components the **MIS** and the **Web Portal** to be interconnected with each other and developed under the detailed methodology provided in the Technical Proposal.

The **Smartnet MIS Platform**; is a web-based Management Information System (MIS) which will act as commercialisation automation software and a management decision support system that would coordinate the transfer of technology and commercialisation activities and provide mutual information flow in the network constituted by stakeholder TTIs, with the following identified list of developed modules:

- Module 1 - Entrepreneurs management
- Module 2 - Mentors management
- Module 3 - Investors management
- Module 4 - Intellectual Property (IP) management
- Module 5 - Integration web services
- Module 6 - Artificial intelligence and decision support
- Module 7 - Standard and custom reporting
- Module 8 - System management and administration

as well as two auxillary modules:

- Module 9 - Web Portal (Content Management System)
- Module 10 - e-Learning Platform (ME-Learning)

The purpose of this document is to present the **Software Requirement Specification (SRS)** forming the basis of the **user requirements** and **system specifications** as were analysed starting with the inception phase until the time of the submission of this document to the ERA and MoIT and provides a comprehensive description of the intended purpose and environment for the **Smartnet MIS Platform** that was developed. The Software Requirements Specifications intends to fully describe what the **Smartnet MIS platform** will do and how it will be expected to perform.

This document also wholly incorporates the **Software Design Descriptions (SDD)** which provides textual description of the application design supported by UML diagrams, wireframes and use-cases, thereby mapping the logical data model to the target database management system with consideration to the system's performance requirements. The Database Design presented is intended to convert logical or conceptual data constructs to physical storage constructs (e.g., tables, files) of the target Database Management System (DBMS).

2. OUR AGILE DEVELOPMENT METHODOLOGY AND JIRA

The specifications, user requirements, design elements, use-cases and business analysis collected and presented in this document will form the basis of our **user stories** and **epics** in our Agile methodology which will then subsequently translated into **technical tasks** for implementation by the development team. The specifications presented in this document has formed the first stories that will be included into our **product backlog**, one of the basic artefacts of our Agile process, as defined into our Technical Proposal and our Inception Report.

This document is the starting point of the agile sofware development and not the result of it. It will be transformed into the **backlog** and **sprints** as we described them in the Technical Proposal and the Inception Report. The documentation of these sprints and the monitoring of the project will take place in **Jira**, the industry standard issue and project tracking software from Atlassian, that has been created for the project and available at https://smartnetpro.atlassian.net/browse/SN.

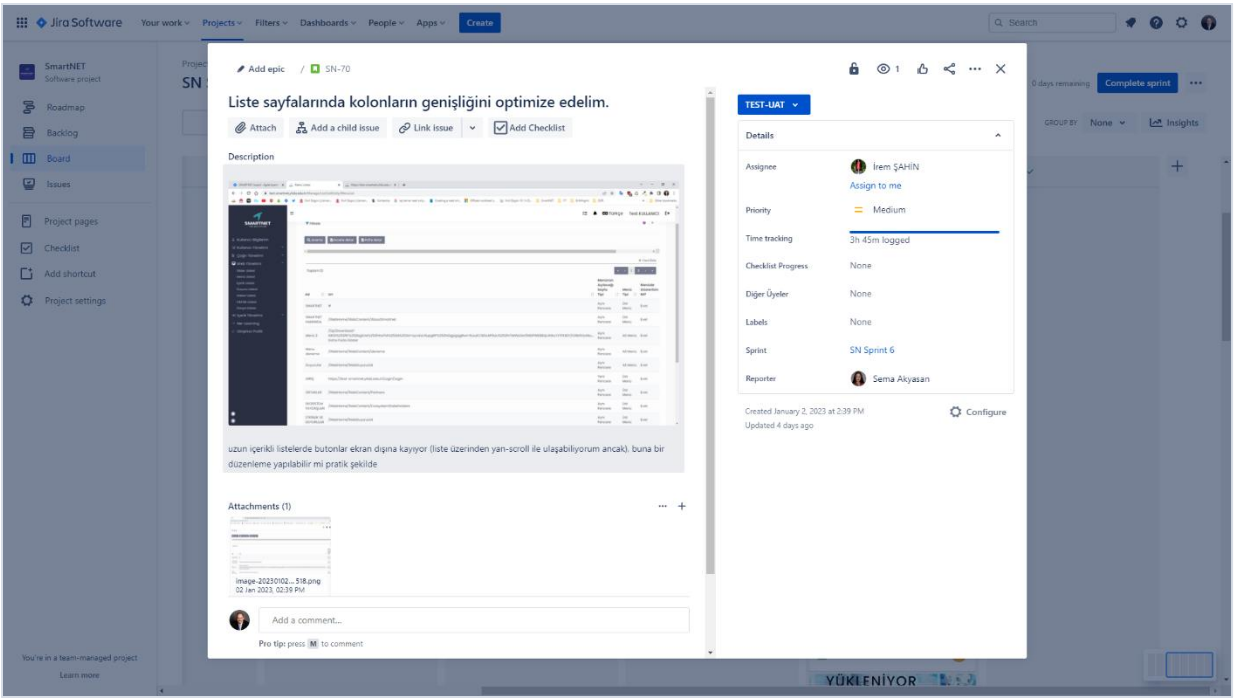

Figure 1 - Sample SMARTNET JIRA Issue Page

Our development planning for the Smartnet MIS, as presented in the Inception Report, also provided us with flexibility in which the TAT along with the ERA, it's technical advisors as well as representatives from the Contracting Authority to work and collaborate in parallel starting from the rather "generic modules" (such as the User Registration, User Management or Content Management functionalities) to more "complex modules" and functionalities as requested by the ToR to be implemented the system, such as the Entrepreneur Management, Mentor Management, Call Management, Data Collection methodologies to feed the AI engine and decision support tools, etc.

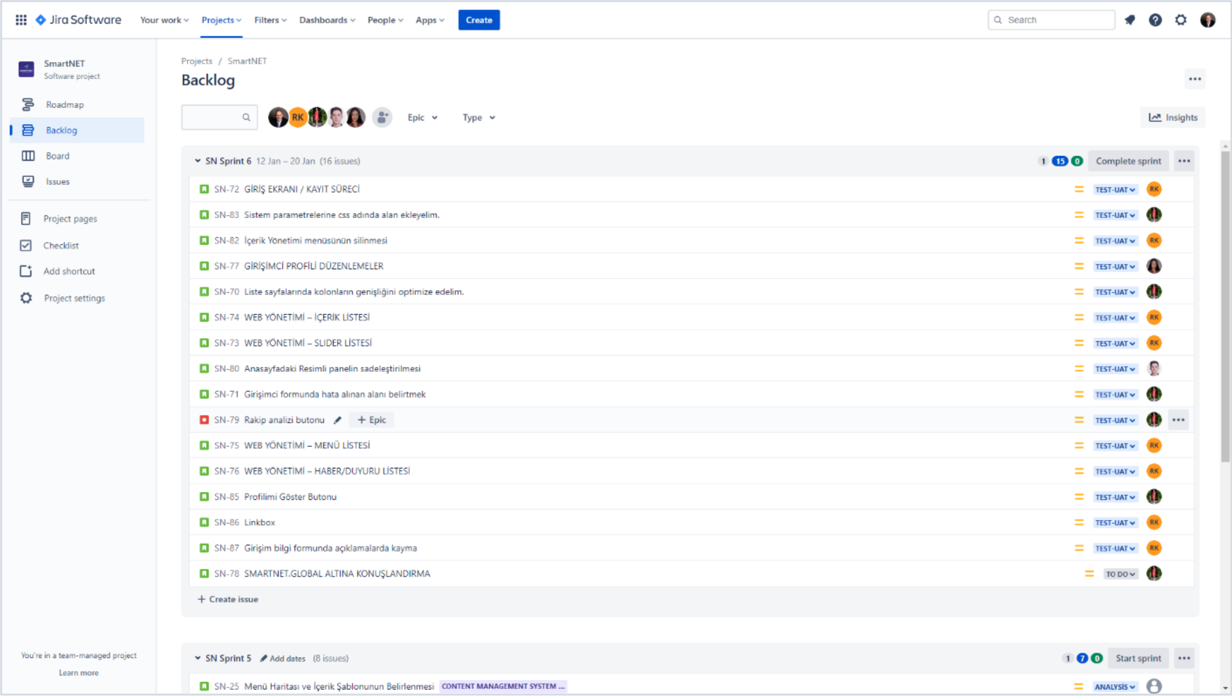

Figure 2 - SMARTNET Backlog in JIRA

3. SYSTEM DESIGN: THE DEVELOPMENT INFRASTRUCTURE

The system design starts with the identification of the development infrastructure and the software framework. The development infrastructure will form operational backbone of the system. The development infrastructure for the Smartnet MIS will consist of developed in a way to form both the operation of the system and the operational backbone of other applications. Basically, the development infrastructure will consist of three sub-components.

3.1 THE LANDSCAPE: DEVELOPMENT LANGUAGE AND ENVIRONMENT

We will be using the **C# language** and the **ASP.NET Core Framework** to develop all the parts of the Smartnet MIS Platform web application.

C# *is a general-purpose, multi-paradigm programming language encompassing static typing, strong typing, lexically scoped, imperative, declarative, functional, generic, object-oriented (class-based), and component-oriented programming disciplines*

ASP.NET *is a popular web-development framework for building web apps on the .NET platform.*

ASP.NET Core *is the **open-source** version of ASP.NET, that runs on macOS, Linux, and Windows which was first released in 2016 thru a re-design of earlier Windows-only versions of ASP.NET.*

As integrated development environment, we will be using **Visual Studio 2022** for the MIS platform and **Visual Studio Code** to support Phyton and AI oriented modules**.**

Microsoft Visual Studio *is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs, as well as websites, web apps, web services and mobile apps particularly using C, C++, C# and other supported languages.*

Visual Studio is an industry-standard tool to produce both native and managed code employing modern technologies and targeting software development platforms such as Windows, Web, Embedded Devices and mobile.

Visual Studio Code *is a free, lightweight and open-source source-code editor made by Microsoft for Windows, Linux and macOS that comes with built-in support for JavaScript, TypeScript and Node.js and has a rich ecosystem of extensions for other languages and runtimes (such as C++, C#, Java, Python, PHP, Go, .NET).*

3.2 THE DATABASE PLATFORM

For the development of Smartnet MIS Platform, we will be employing **Microsoft SQL Server** as the database platform.

Microsoft SQL Server *is a relational database management system developed by Microsoft. As a database server, it has the primary function of storing and retrieving data as requested by software applications - which may run either on the same server or on another server across a network or the internet.*

While many options such as MySQL or PostgreSQL exists, Microsoft SQL Server is the industry-standard database solution to be employed with ASP.NET and ASP.NET Core applications, particularly when employing ***Entity Framework (EF)*** *for data access.*

Should the need arise for a higher performance and responsiveness, we will be we will be using **Redis** for caching and **RabbitMQ** for the data transfer bus.

Redis *is an open source, in-memory data structure store used as a database, cache, message broker, and streaming engine that provides data structures such as strings, hashes, lists, sets, bitmaps, and streams with built-in replication, scripting, transactions, and different levels of on-disk persistence.*

RabbitMQ *is an open-source message-broker software (also called message-oriented middleware) that originally implemented the Advanced Message Queuing Protocol (AMQP) and has since been extended with a plug-in architecture to support Streaming Text Oriented Messaging Protocol (STOMP), MQ Telemetry Transport (MQTT), and other protocols.*

3.3 THE VERSIONING PLATFORM

For the development of Smartnet MIS Platform, we will be using **Git** as the versioning and source code control system.

> ***Git*** *is an open-source, distributed version-control system for tracking changes in any set of files from small to very large projects with speed and efficiency. Originally designed in 2005 by* ***Linus Torvalds*** *for development of the* ***Linux*** *kernel, it is now an industry-standard for coordinating work among programmers cooperating on source code during software development.*

4. SYSTEM DESIGN: SYSTEM ARCHITECTURE

Smartnet MIS will be designed in an expandable, modular manner. The system architecture will implement the **Model-View-Controller (MVC)**. MVC is an architectural pattern that separates an application into three main logical components: the model, the view, and the controller. Each of these components are built to handle specific development aspects of an application. MVC is one of the most frequently used, industry-standards, web development frameworks used to create scalable and extensible projects.

Model	*The Model component corresponds to all the data-related logic that the user works with. This can represent either the data that is being transferred between the View and Controller components or any other business logic-related data.*
View	*The View component is used for all the UI logic of the application.*
Controller	*Controllers act as an interface between Model and View components to process all the business logic and incoming requests, manipulate data using the Model component and interact with the Views to render the final output.*

In terms of our architectural approach, the Smartnet MIS will use a multi-layered architecture consisting of six horizontal layers in this project. These layers will be view (presentation), business logic, data logic, models, intersecting, and service layers. A brief description of these layers is provided below:

View	*GUI-based applications for accessing end users.*
Business Logic	*Business use cases from an application standpoint.*
Data Logic	*Layers that we are working on data on.*
Models	*Layers that contain the database models in the application.*

Intersecting References	*Intersecting References are not business logic codes; instead, they are utility layer codes commonly used in distributed applications and should be kept separate from business logic.*
Service	*Between the business logic and each type of presentation layer, there is a service layer that helps the system management operations.*

SMARTNET Software Platform will be based on an **n-tier Application Architecture**. The n-tier application architecture provides a model by which developers can build flexible and reusable applications. Therefore, pieces of software with different tasks operate separately from each other. By dividing an application into layers, developers gain the ability to change or add a specific layer instead of reworking the entire application.

As TAT, we are confident that the following features of the HNB Core Framework, which includes many libraries and software development approaches, have a guiding and facilitating effect on the development and success of the SMARTNET Platform.

The framework features 6 key features and capabilities that has proven use for software development for the R&D and commercialization ecosystem:

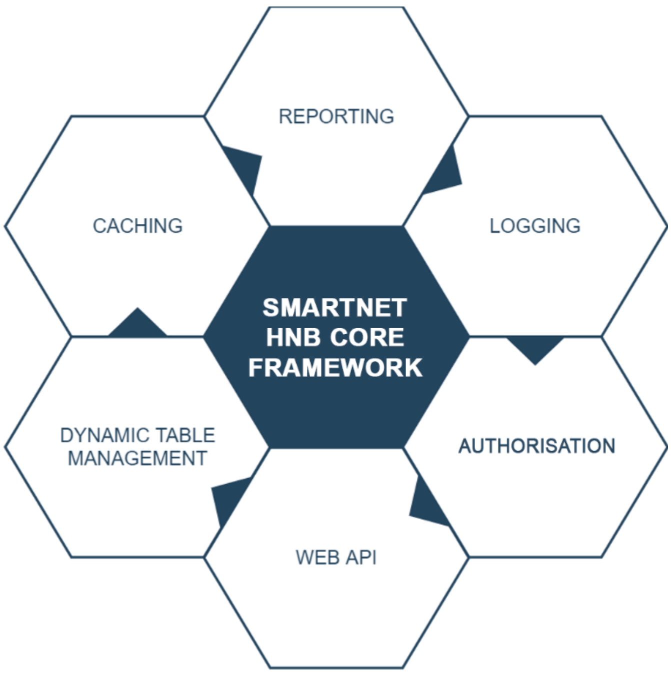

Figure 3 - Pillars of the SMARTNET HNB Core Framework

Reporting	*It offers the possibility of making up-to-date, instant reporting with SQL query for all data in the system. These reports can be exported in word, excel and pdf formats.*
Logging	*Any problems experienced by the user or by the system, transactions such as data updates are stored as logs.*
Authorisation	*The system shows different functionality for many different user roles. There is an authorisation mechanism to provide this functionality and ensure security.*
Web API	*There is a web API infrastructure that can transfer the data in the system using JSON for export if requested.*
Dynamic Table Management	*By eliminating the problem of constantly adding columns to the database, it provides the opportunity to hold the columns and data dynamically.*
Caching	*For data in the system, the caching system is used to avoid the need for reloading every time.*

5. DEVELOPMENT ENVIRONMENT AND EQUIPMENT

The architecture of the Smartnet MIS and the well-thought-out requirement for an agile approach to the development of SW have led us to propose a development infrastructure built on the cloud-based DevOps model. This infrastructure can be invaluable for growth as it allows all our teams to work synergistically and collaboratively without the hazards and malfunctions of on-site hardware, connectivity-related technical issues, or security vulnerabilities.

In addition, the DevOps model provides a more flexible approach to testing and deploying software as part of our **Software Development Lifecycle (SDLC)**. Ideally, we can completely separate our development, deployment (quality assurance, testing), and production environments to enable better testing, avoid downtime, improve security, speed deployment, and more. However, the more sophisticated our DTAP (development, test, acceptance, and production) approach, the more costly the infrastructure can be, often adding limited value to the overall investment.

We propose 3 phases with a combined test and acceptance environment and a separate development environment.

ENVIRONMENT	DEFINITION
DEVELOPMENT	A development server used to develop and test code directly by the developer.
TEST ACCEPTANCE	Internal Testing: Both the QA team and users of the study by can be verified for SW versions will be distributed. Tester, the product to be should like

	because it works sure to be for various use their status will run. discovered errors and problems, problem tracing our system through fix for to programmer's report is done. User Acceptance Testing (UAT): Smartnet personnel can access and use the product in real time with the same appearance as the final product. Features, dependencies, and functionality are tested here and go into production after approval.
PRODUCTION	This is the final place where the finished and approved work is placed, and the main operating environment. Deployment to a production server means that everything has been tested and approved for wide use.

In many SW development lifecycles, multiple environments are required or considered beneficial. We recommend the following environments in our development cycles:

- **GIANT** | **Development**: This environment is intended for developers. The requirements for the environment are met by the TAT development team (SOLVERA).
- **TES** | **Test**: This environment is used for testing purposes. All sprint output is deployed to this environment so that the end user can test the sprint content before production. This environment also includes the STAGING environment, which is typically used between test and production. User acceptance tests are performed in this environment. This environment was gracefully provided by the **ERA**.
- **PRO** | **Production**: The public version of the Smartnet MIS platform is deployed in this environment.

In this project, separate servers are required for the web application, web services, and database application (separate for test and production environments). The primary purpose of this approach is to distribute the load and simplify management. The distribution of the required servers can be seen in the following diagram.

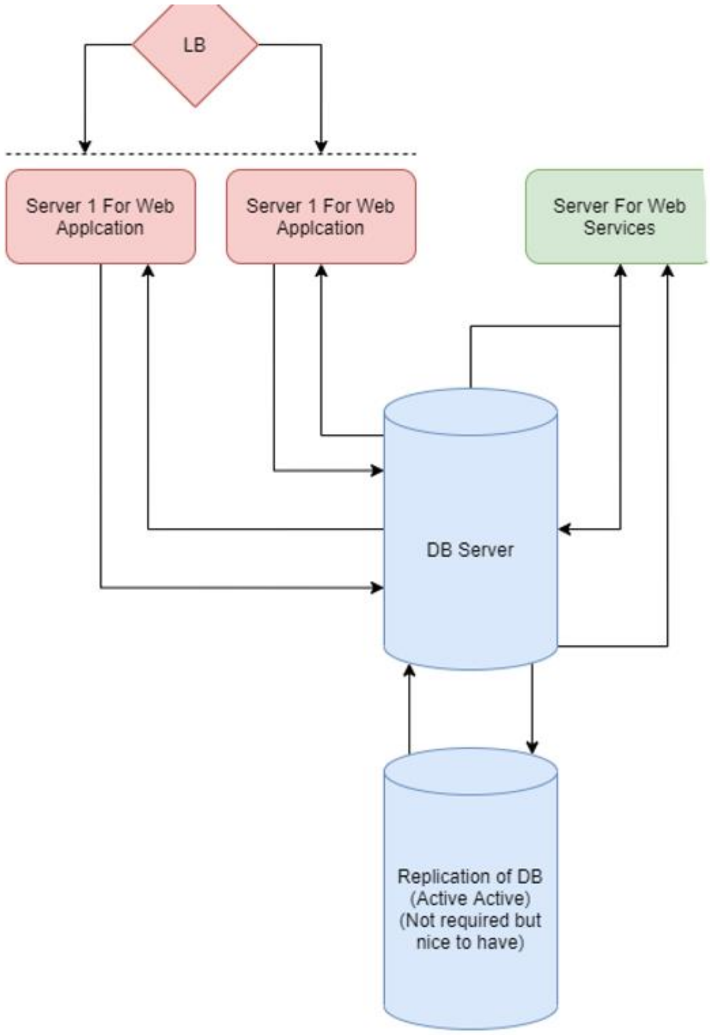

Figure 4 - System Architecture

5.1 SERVERS AND LICENSING

Our software offers stability, scalability and performance. It runs smoothly in various configurations and supports different operating systems (Windows, Linux). However, during the project inception period, to ensure sustainability of the SMARTNET Platform and provide affinity with the existing software landscape of the ERA (Yıldız Technical University), who is responsible for providing the hosting as per ToR, Windows platform and Microsoft SQL Server was chosen as the target development and deployment platforms.

Licensing Requirements

The SMARTNET Platform will run on Windows Server, Microsoft SQL Server, IIS, and .NET Framework, the general licensing requirements for these are summarised below:

Windows Server

Windows Server is a server operating system provided by Microsoft. Licensing for Windows Server typically requires the acquisition of server licenses, which are usually based on the number of physical or virtual processors in use. There are different editions of Windows Server available, such as Standard, Datacenter, and Essentials, each with specific licensing terms and features.

The ERA, Yıldız Technical University (YTU) has university-wide licenses for Windows Server, allowing authorized users to deploy and utilize the operating system within the university's infrastructure.

Microsoft SQL Server

Microsoft SQL Server is a relational database management system (DBMS) developed by Microsoft. Similar to Windows Server, licensing for Microsoft SQL Server usually involves the acquisition of server licenses based on the number of physical or virtual processors in use, along with client access licenses (CALs) for accessing the database.

The ERA, Yıldız Technical University (YTU) has university-wide licenses for Microsoft SQL Server, enabling authorized users to deploy and use the database system within the university's environment.

Internet Information Services (IIS) and .NET Framework

IIS is a web server software provided by Microsoft, while .NET Framework is a software development framework for building Windows-based applications. IIS and .NET Framework are often bundled with the Windows operating system and can be used freely without additional licensing requirements.

Licensing for the SMARTNET Platform

According to the Turkish Law of Intellectual and Artistic Work Property Rights No: 5846; **the financial and moral rights of the software belong to the ERA**, Yıldız Technical University. In addition, the ownership of the domain name of the SMARTNET Platform also belongs to the ERA. There are no license-restricted or third-party software components used for the SMARTNET Platform.

Therefore, after the completion of the software development process:

- The software, source codes, their proper comments and documents produced will be submitted to ERA by the Contractor,
- The software codes will be open-source code and can be freely re-compiled,
- The usernames and passwords which will belong to management panels of any kind that are related to the SMARTNET Platform will be delivered to the ERA.

The following configuration uses at least two servers for the development and testing phase and a greatest of 4 servers for the production phase. Alternative configurations are also possible by combining some of the above environments into a single hardware unit or using virtual machines, always balancing cost, performance, and security.

PRESENTER	DEVELOPMENT	DEVELOPMENT TESTS	PRODUCTION
DATABASE	**DB1:** This is the server that will process the database. It may be the same as the application server, but it's usually better to keep them separate.	**DB1:** The Server can host 2 different instances of the Database: Dev and Test.	**PDB:** The production master Database Server will be isolated from development and testing.
APPLICATION	**APP1:** This is the server that will run the application during the development and testing phases.	**APP1:** We can reduce costs by publishing 2 different instances of the application using the same server infrastructure.	**PAPP:** A separate production level server for the main application.
WEB			**WEB:** Separate server for web application for production environment only.
LOAD BALANCING			**LDS:** A load balancing server may be required depending on performance requirements.
SERVERS	2 (DB1, APP1)	4	

6. SMARTNET MODULES

This section covers the modules of the Smartnet MIS Platform:

6.1 MODULE PURPOSE

Module 1 System / User Management

This module enables the overall management of the system and serves two purposes: The administration of the system, and the administration of its users.

System Management: Administrators can manage the internal components of the system. They can manage general platform settings and datawebsite content and receive analytical reports of the platform and each module.

User Management: Based on rights, administrators and admin users can create, invite, activate, lock, and manage other users, user groups, menus, and user manuals, change parameters and settings, set access policies, and more.

Single sign-on: The module also manages the authentication scheme so that users can seamlessly access all applications and services of our system.

Registration: This module provides all the necessary functions that allow entrepreneurs to register for SMARTNET services and create, their profiles. It provides each user to manage their profile data.

6.2 TARGET MASS

This document is intended for the technical project managers, product managers, and developers of ERA to provide an overview of a particular module. It is a starting point. Once approved by ERA, will be transferred to our agile software development platform for further analysis and monitoring of the software development process.

6.3 BUSINESS DEFINITION REQUIREMENTS

In accordance with the Terms of Reference, the Smartnet MIS Platform general registry will be accessible to beneficiaries to facilitate announcements, training, events, mentoring, matching, calls, and all related services. To meet this requirement, a powerful user management and registration. Module will be needed to manage all the distinct user types, attributes, and access rights. As far as we can see, we have identified at least 6 - 7 roles.

Platform User Groups / System Roles	
System Managers **(Employee)**	This user has the ability to manage resources by creating access policies for platform users and defining processes for the assigned module (module manager) or the entire platform (platform manager) depending on the access policy assigned to it.
Webmaster **(Employee)**	User has the ability to create, manage the data within the project, the participants, and control the progress of the application and evaluation processes.

Mentor Evaluator	They have the authority to evaluate the users who join the system as mentors.
Entrepreneur	These are startups and entrepreneurs who have applied for open tenders or are already part of SMARTNET and thus receive support and various services for the development and growth of their ideas, products, and companies.
Web Portal Users	Web portal (registered) users can access pages and documents provided by the content management system for registered users.
Administrative Unit Users	Administrative users are responsible for planning and managing marketing acceleration programs. Administrative unit users are the user group that makes decisions about entrepreneurs, mentors, investors, programs, instructors, and training.
Educators	This is the account opened in the Smartnet system for instructors in the Education Portal. Educators can log in to the education portal using a single login function.
Mentor (Expert)	These users are experts with proven experience in specific areas who can be assigned to one or more applicants to help them develop their ideas/products/services.
Investors	Investors have access to business ideas, data on technological readiness, key frameworks for entrepreneurs' operations, and investment proposals from management, if applicable.

6.4 DEFINITIONS

Platform User: Any person who registers on the platform or registers by creating their own data profile and is uniquely identified by it. In order to use the services of the platform, the user must be assigned an access policy associated with one of the following system roles.

Platform User Groups / System Roles	
System Managers (Employee)	This user has the ability to manage resources by creating access policies for platform users and defining processes for the assigned module (module manager) or the entire platform (platform manager) depending on the access policy assigned to it.
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Investors	Investors have access to business ideas, data on technological readiness, key frameworks for entrepreneurs' operations, and investment proposals from management, if applicable.

These are the actions that users with specific roles can perform to the extent allowed by the system. Each privilege has at least one role, and each role has at least one privilege. The system does not allow roles to act outside their privileges.

6.5 USAGE SCENARIOS

The usage scenarios under the system are provided as follows:

6.5.1 Entrepreneur Registration

A new entrepreneur logs into the system.

- The information must be entered correctly during registration. It is not possible to register using someone else's phone number and e-mail address.
- The GDPR/KVKK should be accepted only once.

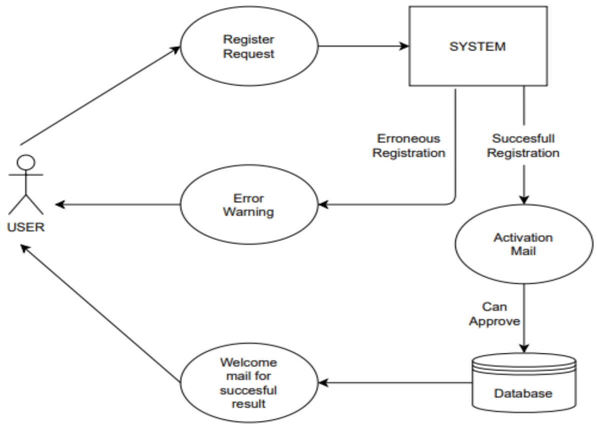

Figure 5 - Entrepreneur Registration Scheme

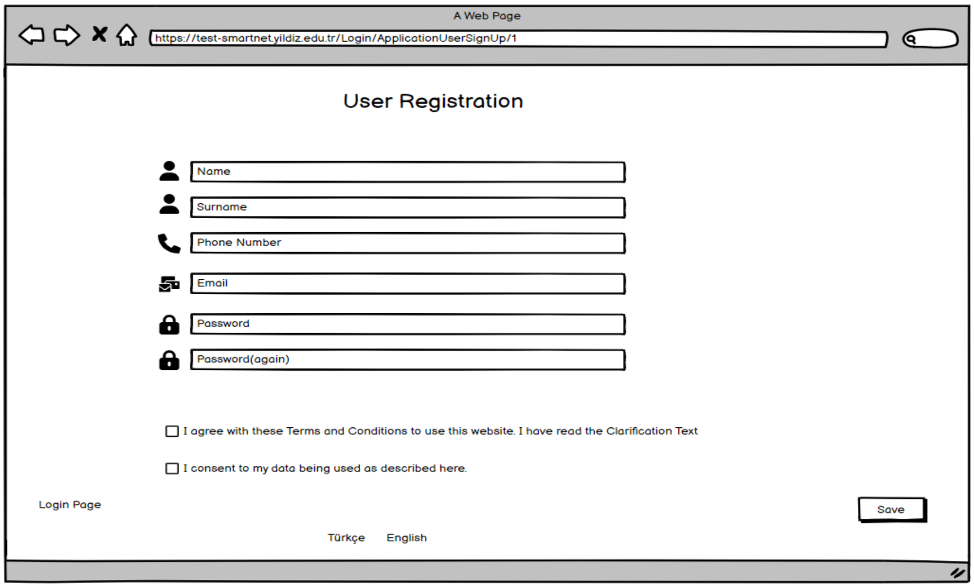

Figure 6 - Entrepreneur Registration Mock-up Drawing

6.5.2 User Activation

User activation in Smartnet MIS Platform is as follows:

- After the entrepreneur completes the registration, the e-mail with the activation code will be sent to the corresponding e-mail address.
- Upon confirmation of this e-mail, the user becomes active in the system and can log in to the system.
- The status of the user must be specified in the system information (active or inactive)

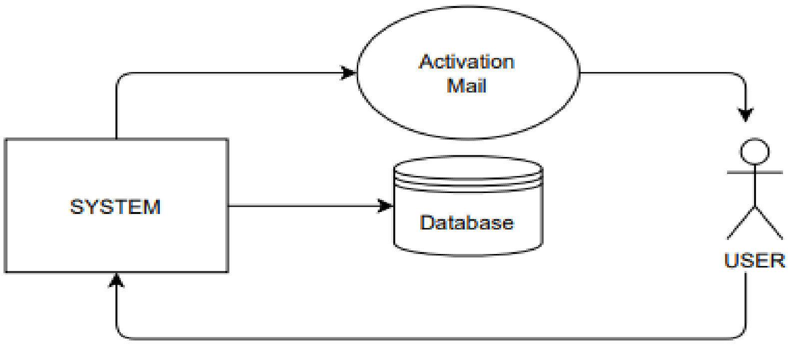

Figure 7 - User Activation Chart

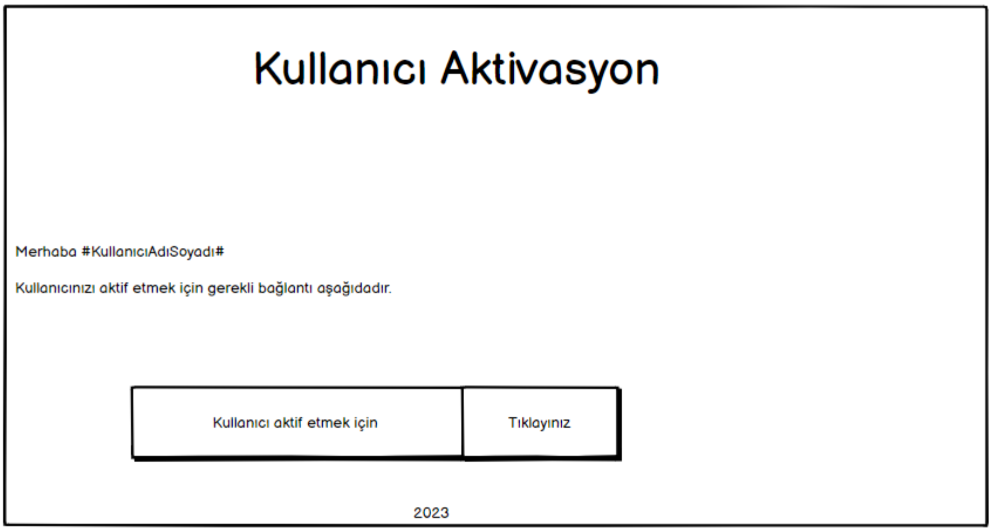

Figure 8 - User Activation Mail Mock up Drawing

6.5.3 Entrepreneur Session Login - Logout

User login and logout flow in Smartnet MIS Platform is as follows:

- The entrepreneur must enter the correct e-mail and password data to log in to the system.
- If the entrepreneur enters his data incorrectly, he should be warned by the system, and his entry is not allowed.
- If the entrepreneur forgets his password, the system should send a password reset link to the registered e-mail address, this link should be displayed as a warning on the entrepreneur's screen.
- After the entrepreneur has renewed his password, he can log in to the system again with the correct data.

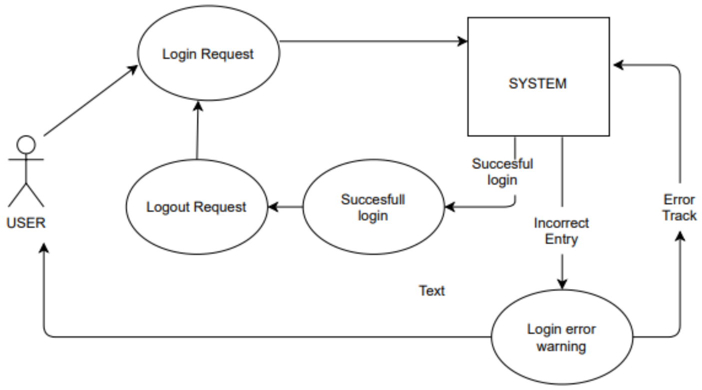

Figure 9 - Entrepreneur Login-Logout Diagram

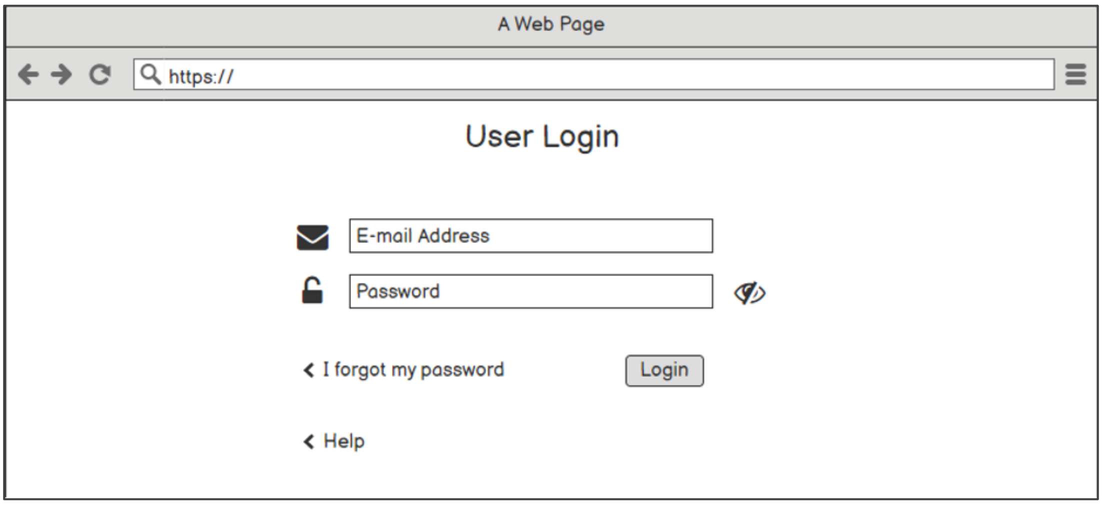

Figure 10 - Entrepreneur Input-Output mock-up Drawing

6.5.4 Entrepreneur Password Change - Renewal

Entrepreneurs should be able to change their password in the user settings after logging into the system. If he repeats the old password in the process, the system should fail. If the password change was successful, the new password should be stored in the database.

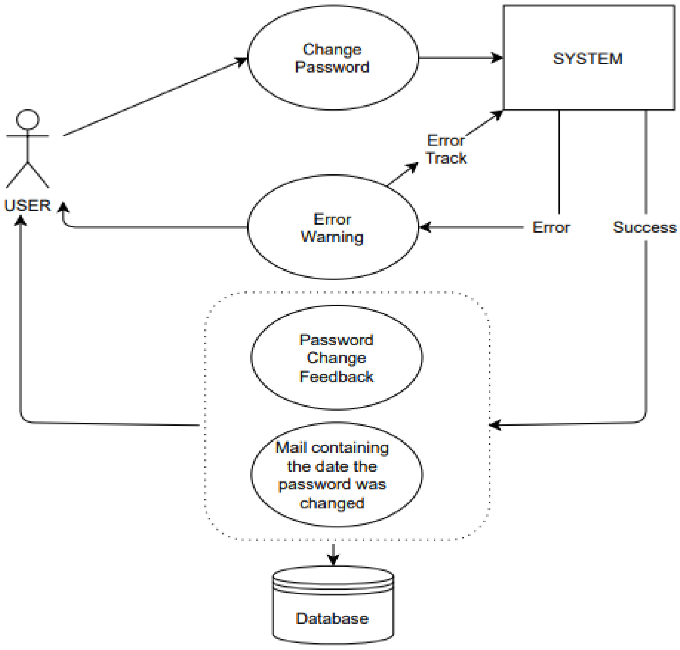

Figure 11 - Entrepreneur Password Change/Renewal Scheme

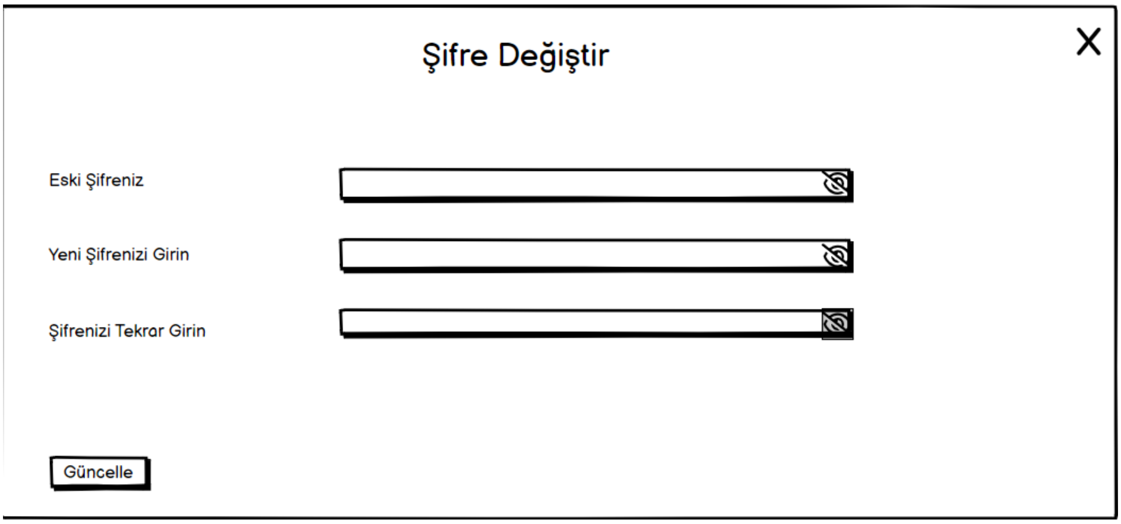

Figure 12 - Entrepreneur Password Change Mock-up Drawing

If entrepreneurs forget their password, they should be able to reset it. In doing so, the system should send a password reset link to the e-mail address. Entrepreneurs should be able to renew their password by clicking on a link, and the new password should be stored in the database with its current date. Also, the updated date should be sent by the system to the user as a notification e-mail.

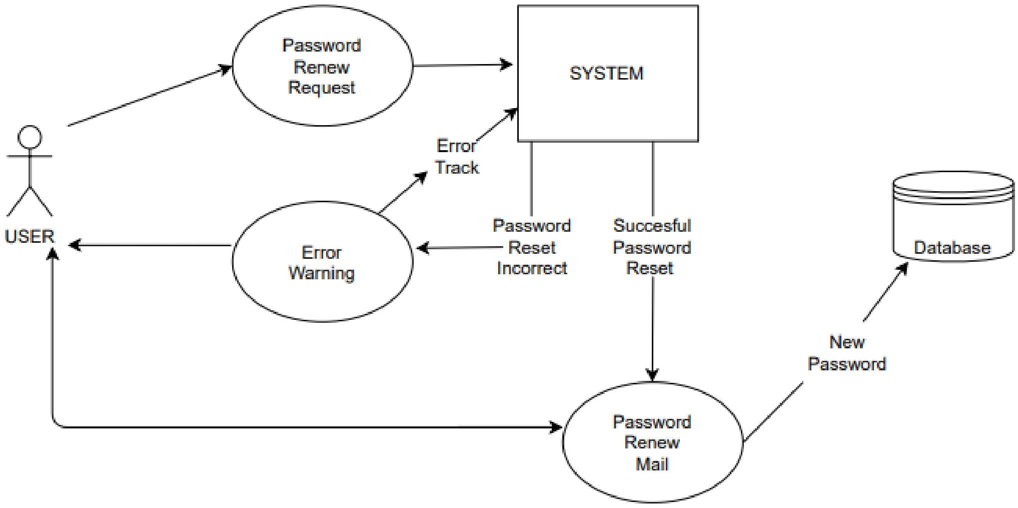

Figure 13 - Entrepreneur Password Renewal Scheme

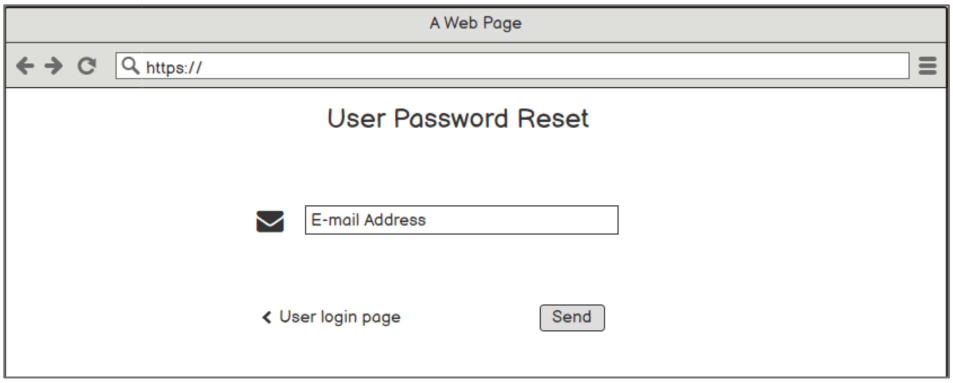

Figure 14 - Entrepreneur Password Reset Mock up Drawing

6.5.5 Entrepreneur Profile Update

Profile updates for an entrepreneur in Smartnet MIS Platform is as follows:

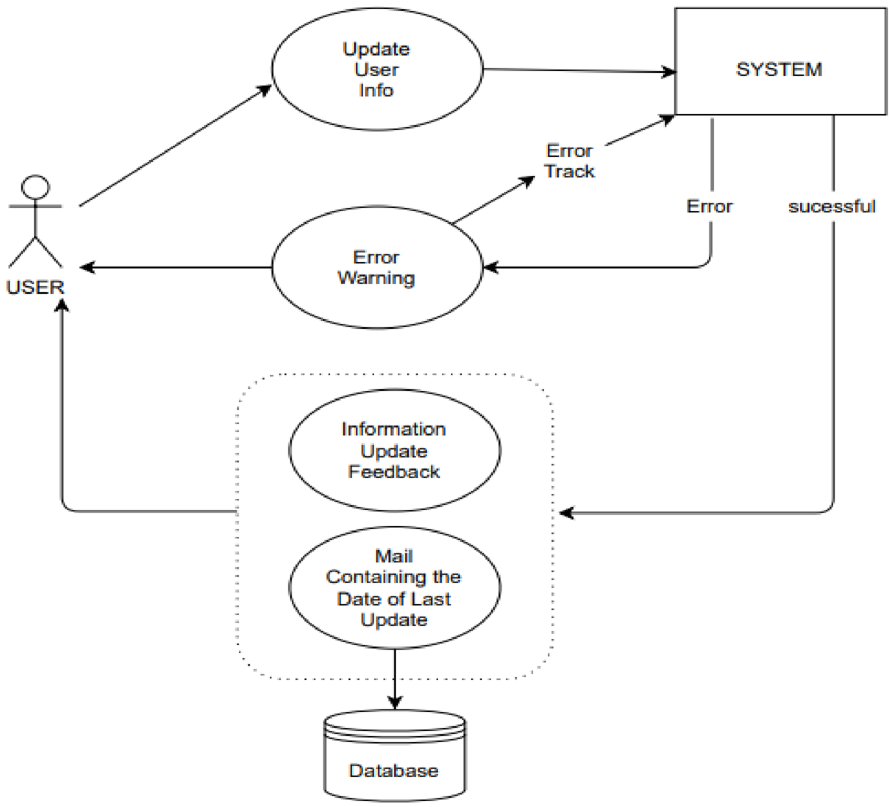

Figure 15 - Entrepreneur Profile Update Chart

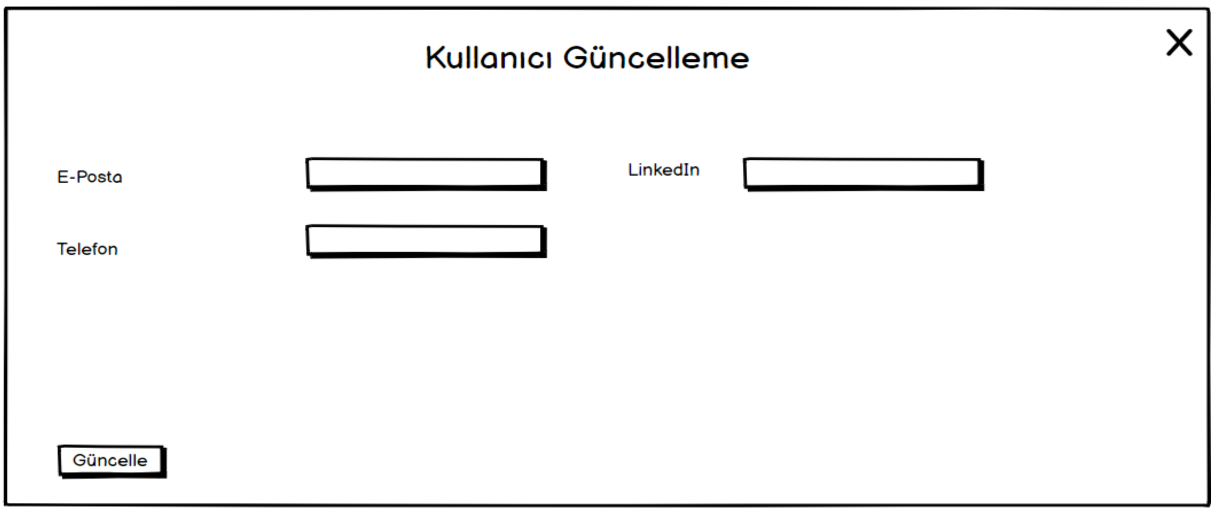

Figure 16 - Entrepreneur Profile Update Mock-up Drawing

6.5.6 User Help

Users should be able to message administrative staff via their e-mail information if they have problems registering in the system or otherwise want to provide assistance. Administrative staff should be able to see this message and send a response. The messages on both sides should be stored in the database along with their date.

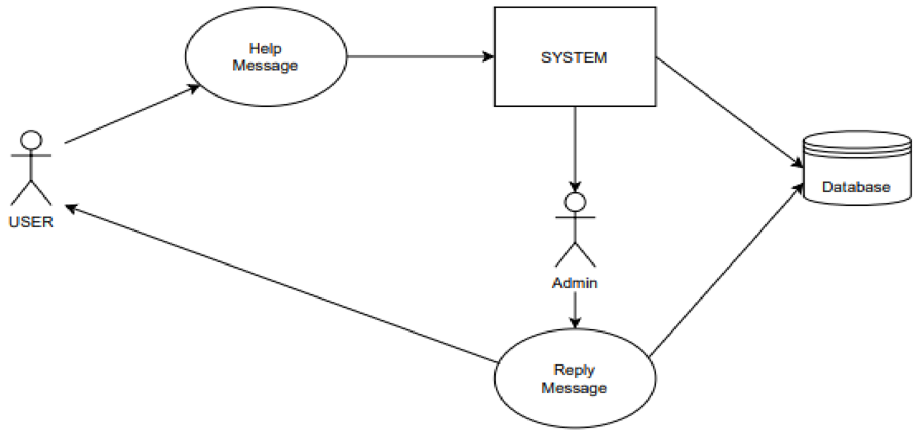

Figure 17 - User Assistance Diagram

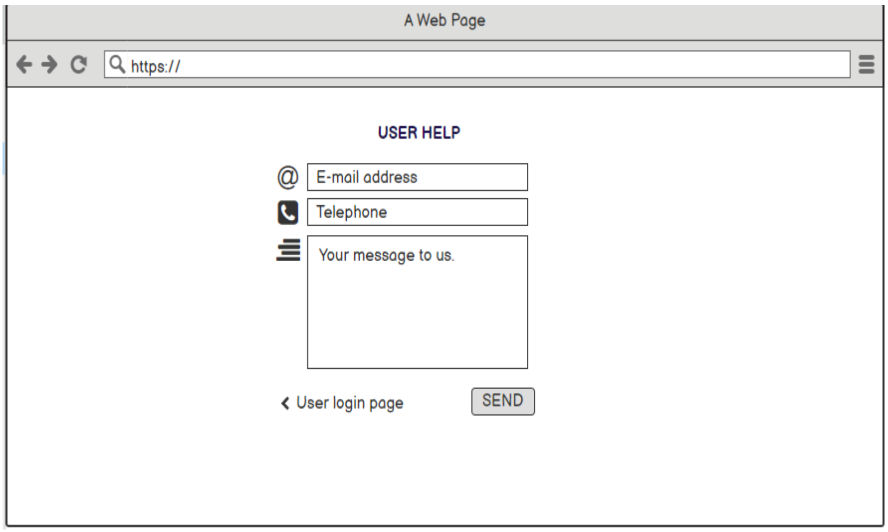

Figure 18 - User Help Mock-up Drawing

6.5.7 Mentor Registration

The required information is entered on the screen that opens. When you click the save button, an activation email will be sent to the mentor's e-mail address.

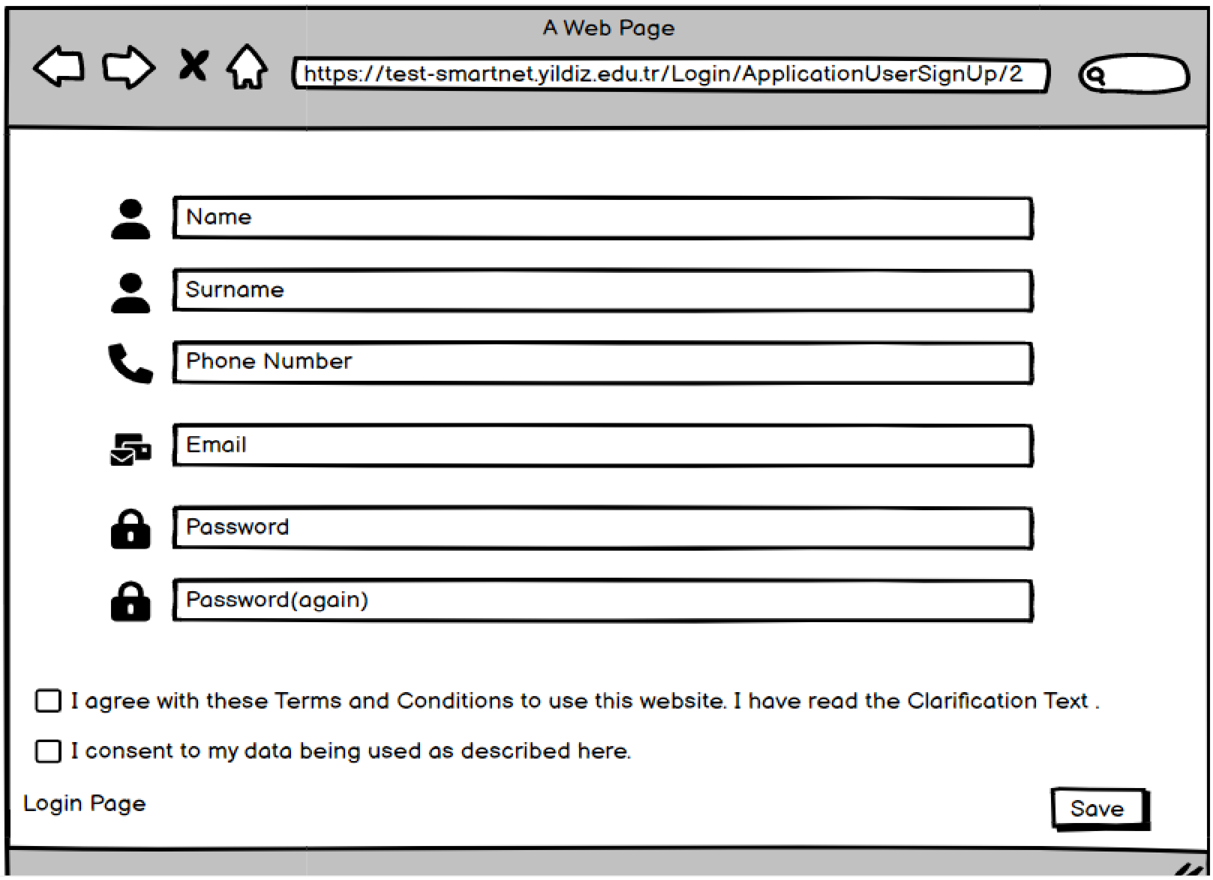

Figure 19 - Mentor Registration Mock-up Drawing

Clicking on the activation e-mail will add him to the system as a mentor. Users who register in the system will be automatically added by the system to a user group called "Mentor".

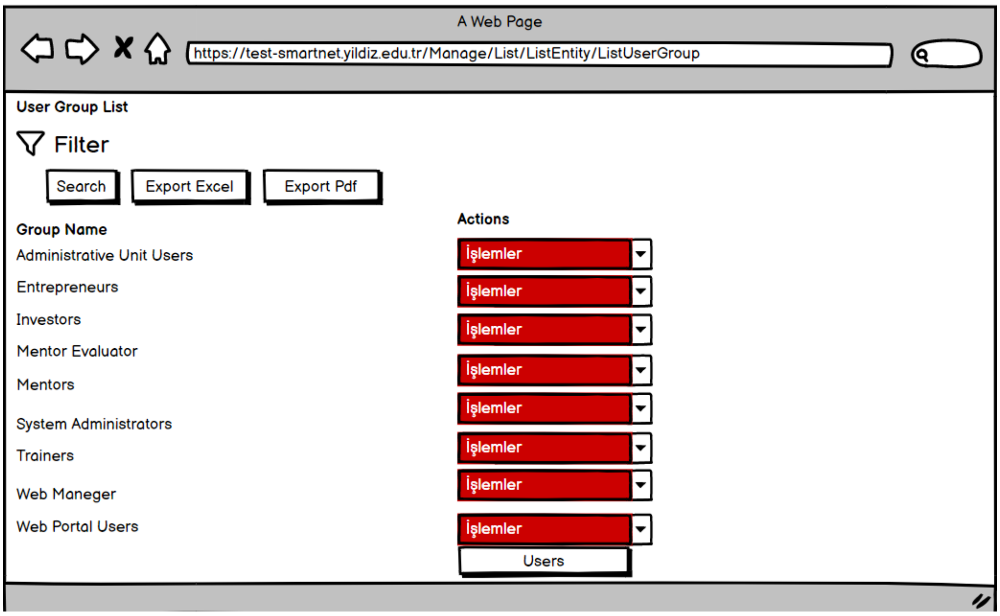

Figure 20 - User Groups Mock-up Drawing

6.5.8 Mentors List

All users who stuffed in the mentor information form will be registered on a listing page created in the “User Administration” > “Mentor list” tab. This page appears for the users of the Administrator user group and the “Mentor Rating Group” who are added to the user group.

Figure 21 - Listing Page Mock-up Drawing

- Mentors can be rated by the administrators and evaluators and are automatically approved or rejected by the system according to the score assigned by the administrators and evaluators.
- When a mentor candidate completes their profile, the “Administrator” user group and the “Mentor Evaluator” user group are notified by e-mail.
- The system sends an automatic activation e-mail to all users registered in the system. The account of each user who receives and approves this e-mail becomes active in the system.

6.5.9 Mentor Evaluation

The mentor entering the system is evaluated by the mentor evaluator.

- When you log in from the User Management tab > Mentor List, the administrator users can evaluate using the Evaluate button in the control panel.
- In the rating section, the following items are rated on a Likert scale between 1 and 5, such that: 1: weak, 2: irrelevant, 3: requirement met, 4: requirement positively met, 5: requirement met and surpassed.

Additional evaluation is given on the following topics:

- Extent of industry experience: at least five years of experience (0-5 points)
- Entrepreneurial background (0-5 points)
- Commitment to the program (0-5 points)
- International exposure (0-5 points)

- Depth of education (0-5 points)

There is also a "Comments/Remarks" section where evaluators can enter their opinions. The weight of the questions is calculated using 20 points on the back. The total weight is scored as 100 points.

The evaluation screen looks like the following and opens as a pop-up window. On the left is a text box to enter the assessment questions, on the right side are observations and notes, and below that is a button to enter the assessment results and mentor into the system.

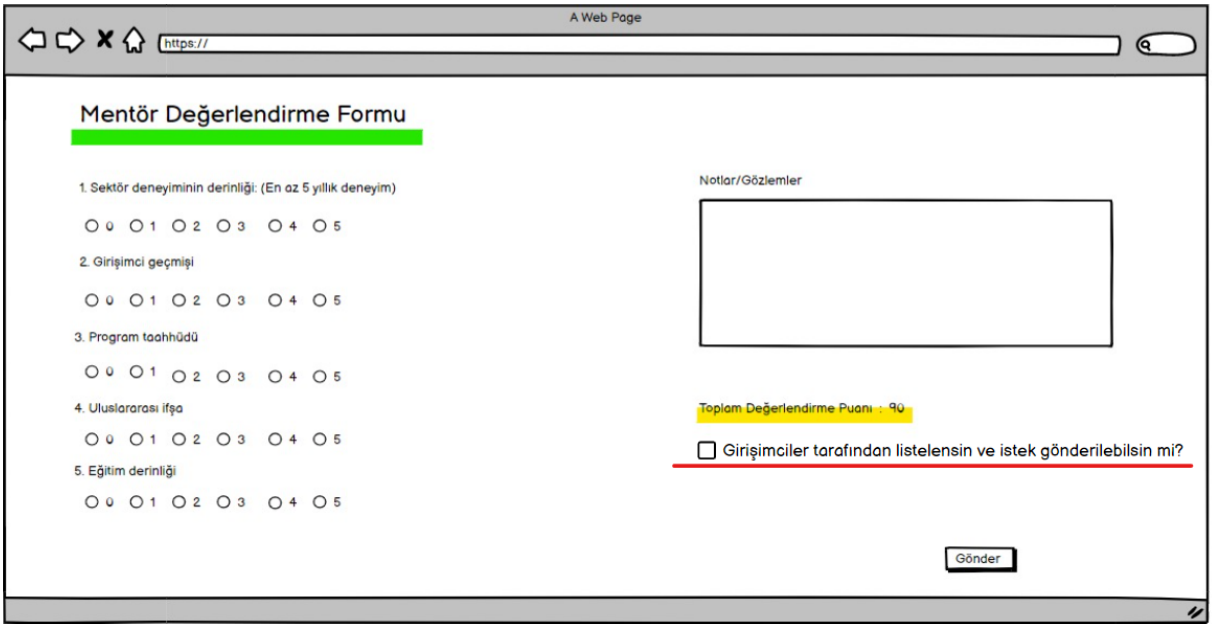

Figure 22 - Mentor Evaluation Form Mock-up Drawing

Figure 23 - Mentor List Mock-up Drawing

After completing the assessment, if you click on the assessment option in the control panel again, the following screen will be displayed, and this page will open as a pop-up window. When the answers change, the score also changes, and when the checkmark is removed, this mentor is no longer displayed for entrepreneurs.

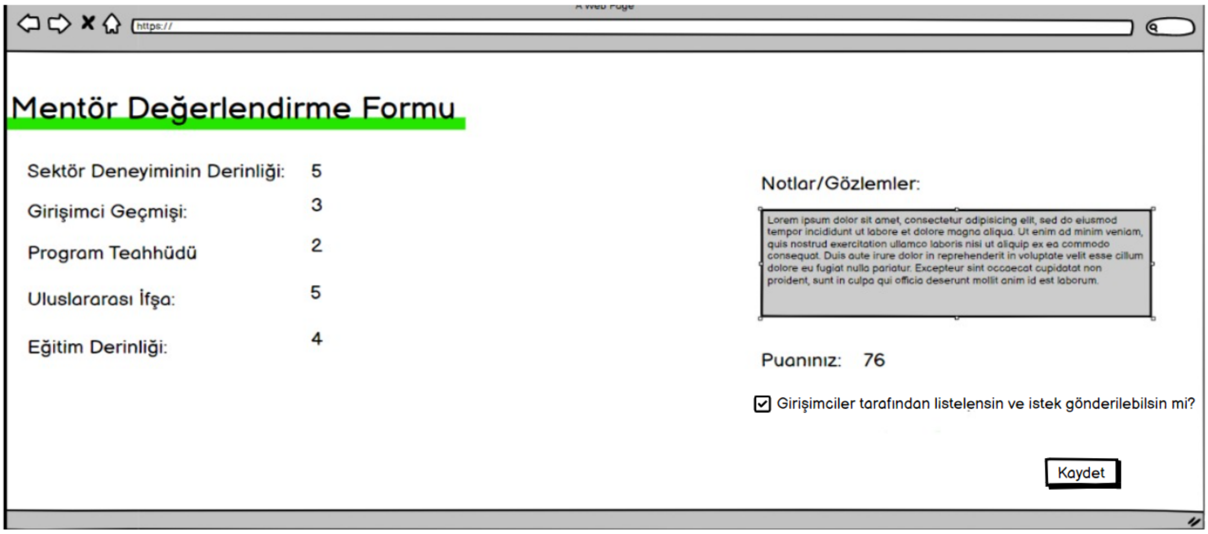

Figure 24 - Filled Mentor Evaluation Form Mock-up Drawing

After receiving the activation e-mail, the mentor candidate will receive an email asking them to fill out the mentor information form. Clicking the button in the email will take you to the information form.

Figure 25 - Mentor Applications Information Mail Mock-up Drawing

After the mentor has registered in the system, completed the activation procedures, and logged into the system, they will be able to see the menus relevant to their role.

6.5.10 Mentor Information Form

The tabs will change from pink to green when the mentor has completed their profile. After you have completed the mentor profile and all fields are green, you can preview the completed version using the Preview button at the bottom of the page or view the completed information as a report using the View My Profile button. When you click on these two buttons, the pages will open in the form of a pop-up.

When you click the "Fill out my profile" button, your profile will be submitted to the administration so you can become a mentor in the system. You cannot update your profile data without being evaluated by the management', and if you click on the 'OK' button, the option to edit the profile will not be displayed in the system.

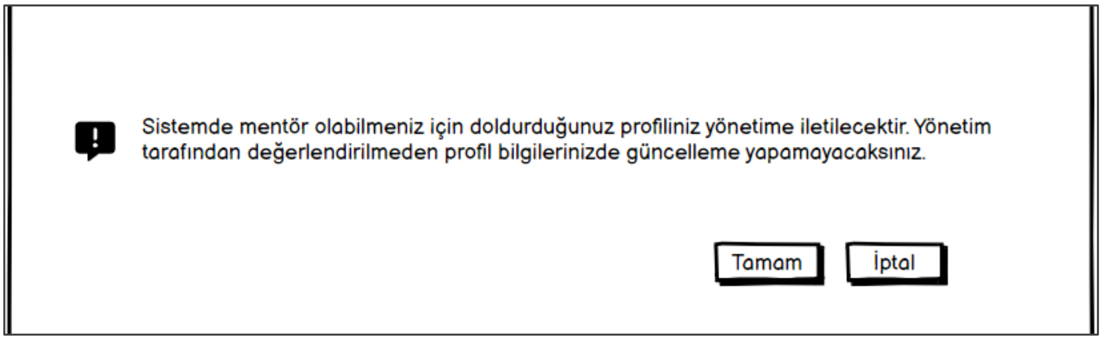

Figure 26 - Mentor Profile Completion Confirmation Mock-up Drawing

6.5.11 Mentor Search for Entrepreneurs

For all users who have an entrepreneur role in the system, a Mentor List will be displayed when they log in from the Matching Management - Mentor List tabs in the menu. This menu should be visible for admin users and entrepreneurs.

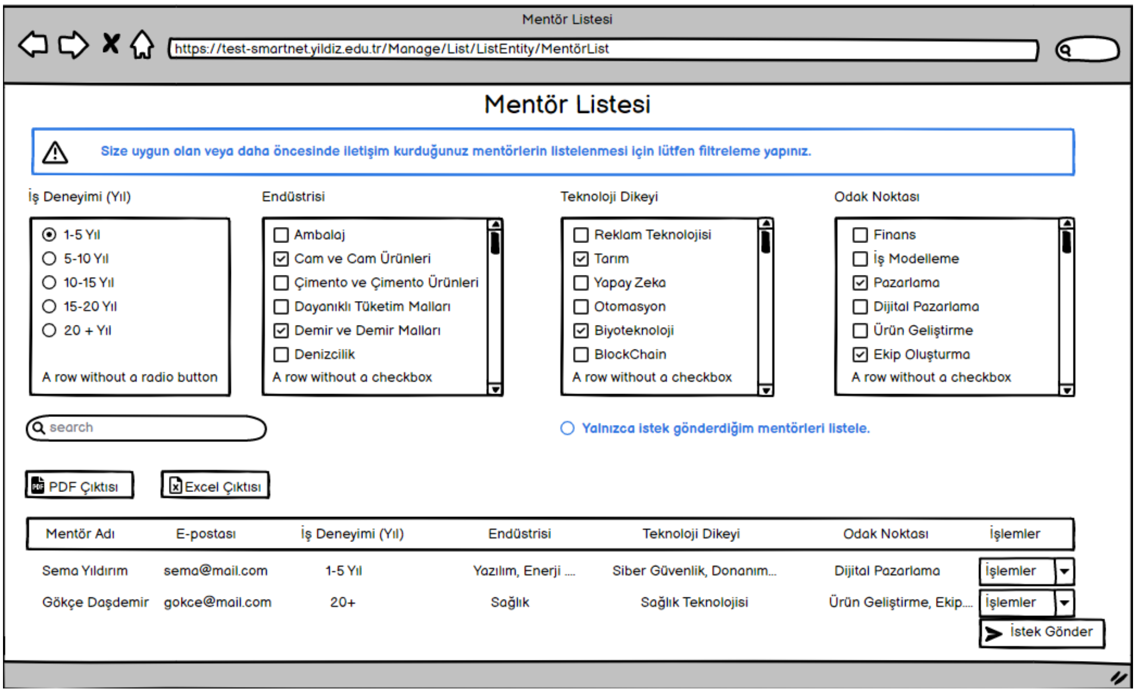

Figure 27 - Mentor List Mock-up Drawing

A pop-up opens when the submit request button is clicked.

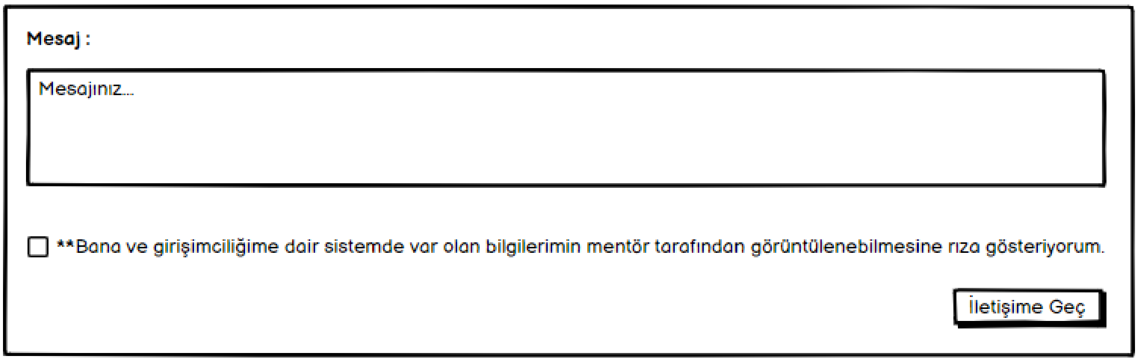

Figure 28 - Sending a Request to Mentor Screen Mock-up Drawing

It is mandatory to give consent and check the box. It should be noted that it gives its approval to the database. As long as there is no tick, the "Contact the Mentor" button remains passive, and the system does not allow it to be clicked.

Once the entrepreneur has requested a mentor, the button remains inactive and cannot be requested again unless this request is approved by the mentor.

If the request is denied by the mentor, the entrepreneur cannot resend the request in the same manner. However, if the mentor has approved the request, the entrepreneur can make multiple requests. In this case, we can use the 'Send Request' button in the transaction area to open a list and list all requests sent to the same mentor by date. Also, requests can be sent from this list, and new requests can be sent using the "Add New" button.

6.5.12 Mentor Requests

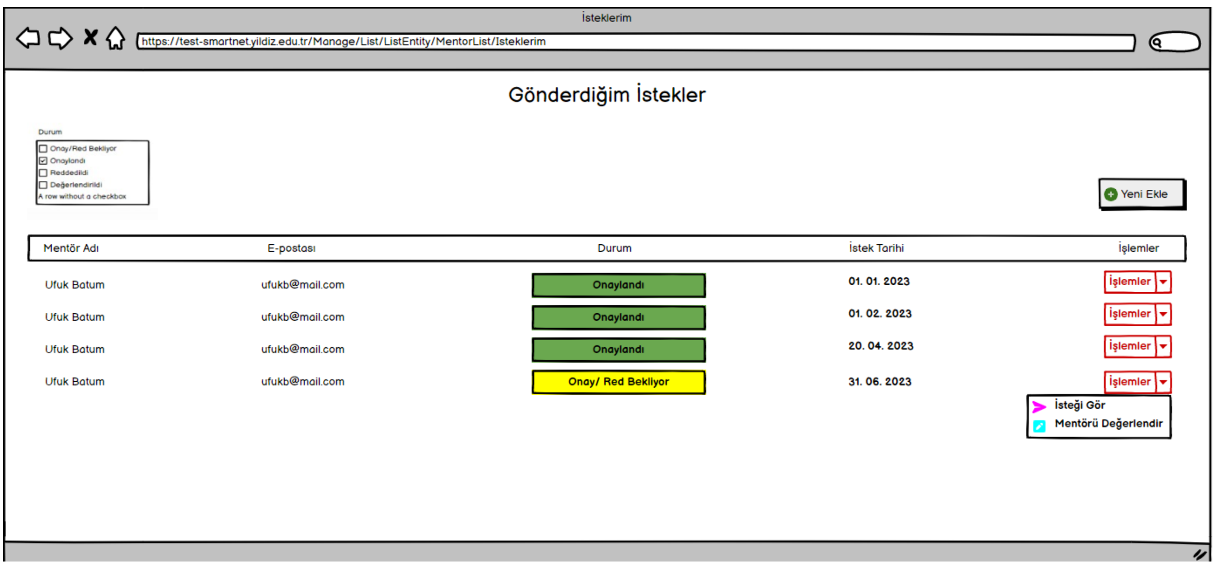

Figure 29 - Mentor Requests Mock-up Drawing

On this opening list page, the mentor can be rated separately for each request sent to the mentor.

Figure 30 - Mentor Evaluation Mock-up Drawing

The mentor will be notified of contractor requests both by e-mail and by notification in the system.

The mentor may approve or reject these requests, in which case the entrepreneur will not be informed. The page where mentors can request, approve, reject, or evaluate entrepreneurs who want to contact them can be reached through the Matching Management - My Entrepreneurs tabs. This page is only accessible to users in the Mentors user group. By default, when the mentor clicks on the list of entrepreneurs, he will see all the entrepreneurs who have sent him a request in the list.

6.5.13 Entrepreneurs Requests from the Mentor

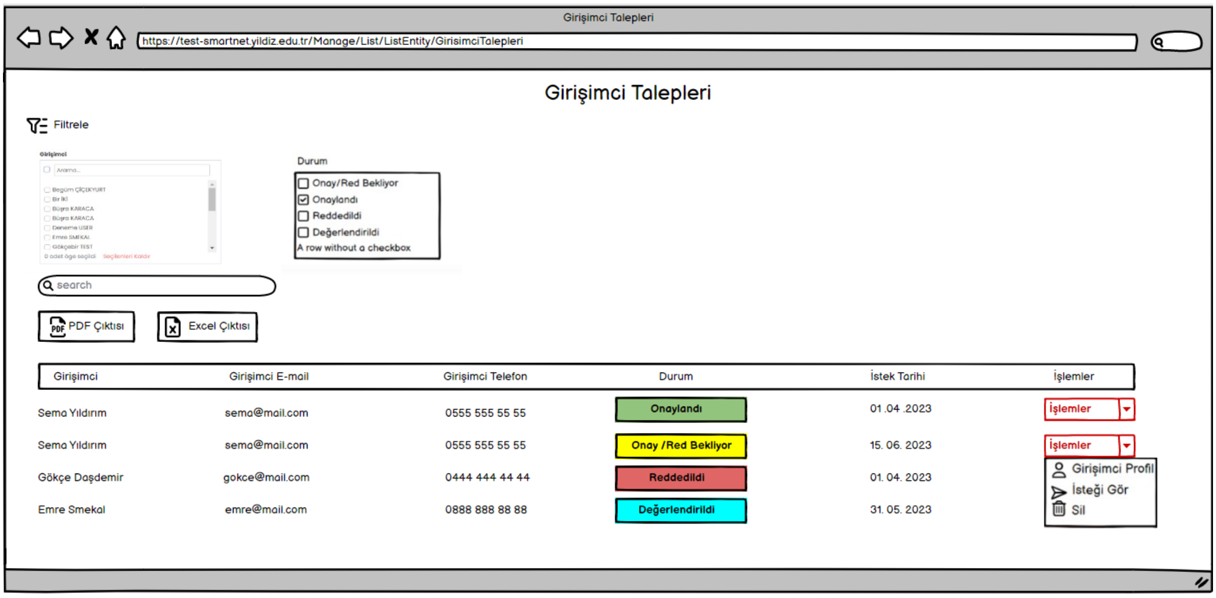

Figure 31 - Entrepreneur Requests Mock-up Drawing

An e-mail is sent to the entrepreneur when the mentor completes the received requests.

If the entrepreneur's request is pending or rejected, he cannot send another request to the same mentor, but if approved, the same entrepreneur can send multiple requests to the same mentor. These requests can be distinguished by the data in the mentor's list.

He sees only the primary information in the column about entrepreneurs and can see the entrepreneur's profile in a pop-up window that opens when he clicks on the "Entrepreneur Profile" button in the transaction area.

After reviewing the profile, you can see the message the entrepreneur wrote to the mentor and approve or reject the entrepreneur using the "View Request" button in the transaction area.

Figure 32 - Approve/Reject Entrepreneur Mock-up Drawing

If approved, the "Rate Entrepreneur" button will appear in the transaction area for that entrepreneur. When you click the 'Rate Entrepreneur' button. A pop-up window will appear (see below).

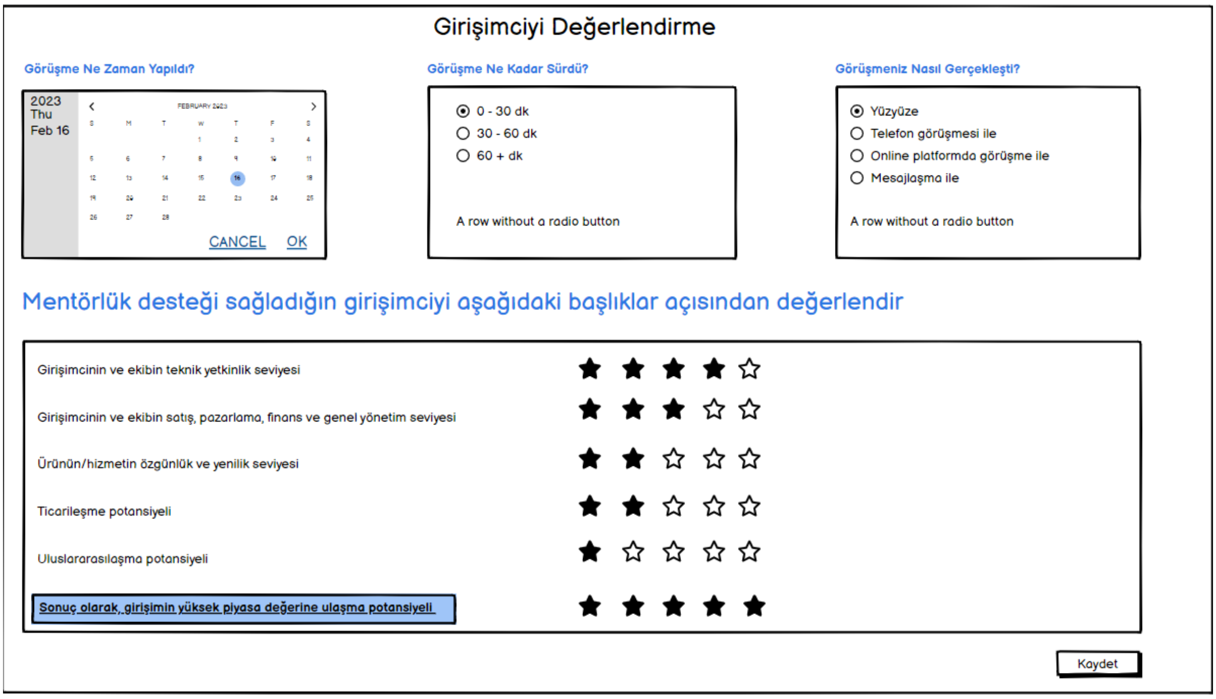

Figure 33 - Entrepreneur Evaluation Screen Mock-up Drawing

The “Delete” button in the transaction panel allows the mentor to completely remove this entrepreneur from their list. As usual in our standardization, clicking the “Delete” button will not perform a deletion without approval.

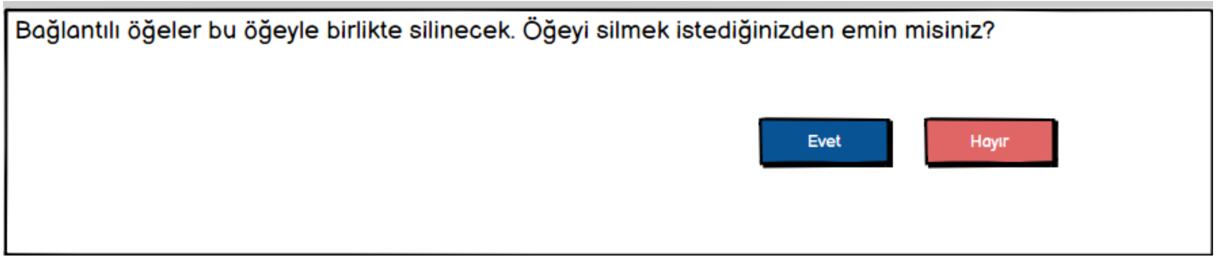

Figure 34 - Delete Screen Mock-up Drawing

6.5.14 Investor Invitation

A user group is created as 'User Management > User Groups > Investors'.

When you click on "Users" in the "Operations" panel, the users are displayed in the system.

When the "Delete" option is clicked in the "Actions" panel, a pop-up window opens at the top of the page, displaying a confirmation question with yes/no options.

At the same time, each investor becomes a user. When the investor joins the system, he is added to the users.

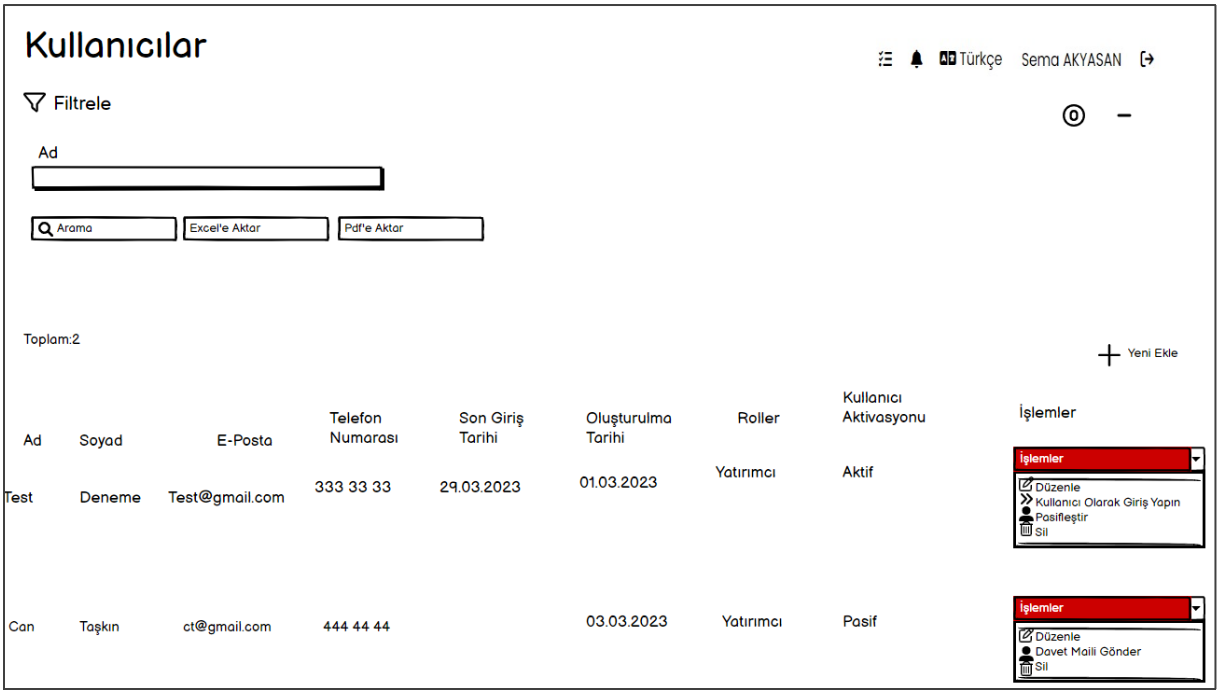

Figure 35 - Investor Invitation - Users Screen Mock-up Drawing

The Send invitation mail option is displayed if the user in question is not active. If he is active, this option will not be displayed.

When you click the Edit option, the following screen opens as a pop-up window.

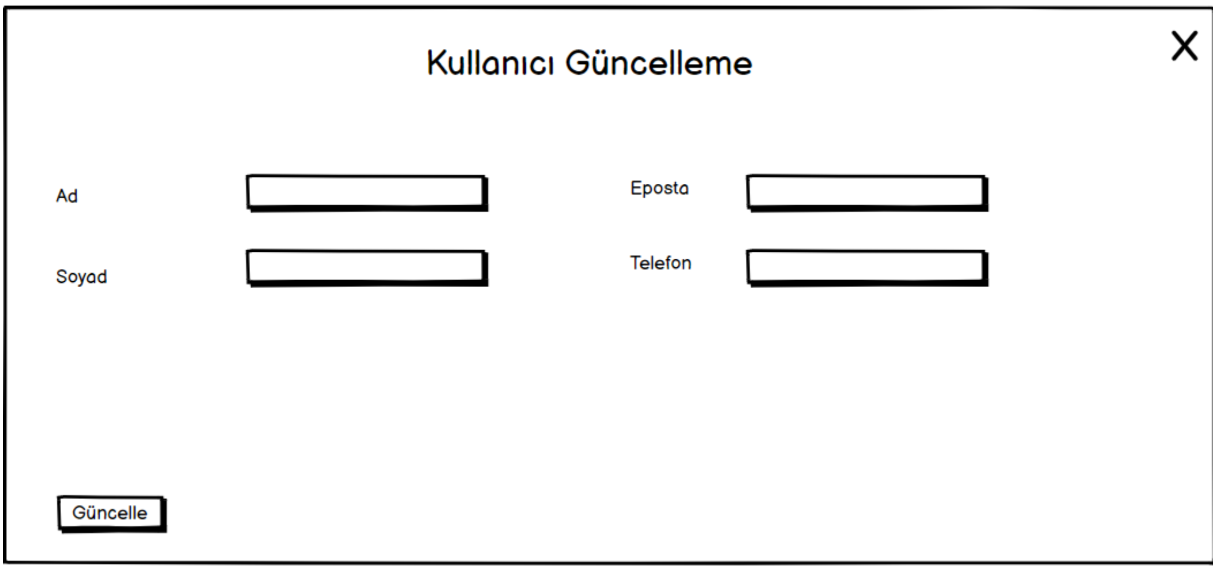

Figure 36 - Investor Invitation Screen Mock-up Drawing

First name, last name, e-mail and phone information for the investor can be changed on this screen.

The investor added to the user list will be inactive. An invitation e-mail will be sent to the investor by clicking the Send invitation e-mail option in the transaction area. The same process applies to the investor added to the user list in the User Management Menu > Investor List.

Figure 37 - Investor Invitation Mail Mock-up Drawing

The investor joins the system with the notification included in the e-mail by clicking the Click to Login button in the invitation e-mail.

The investor who logs in to the system will see the received investor request on the main page as a notification.

6.5.15 Investor Profile Entry

After logging into the system, the investor clicks on the investor profile at the bottom of the menu and enters his data.

The screen for entering the investment data is divided into two tabs: Personal Information and Other (Field) Information.

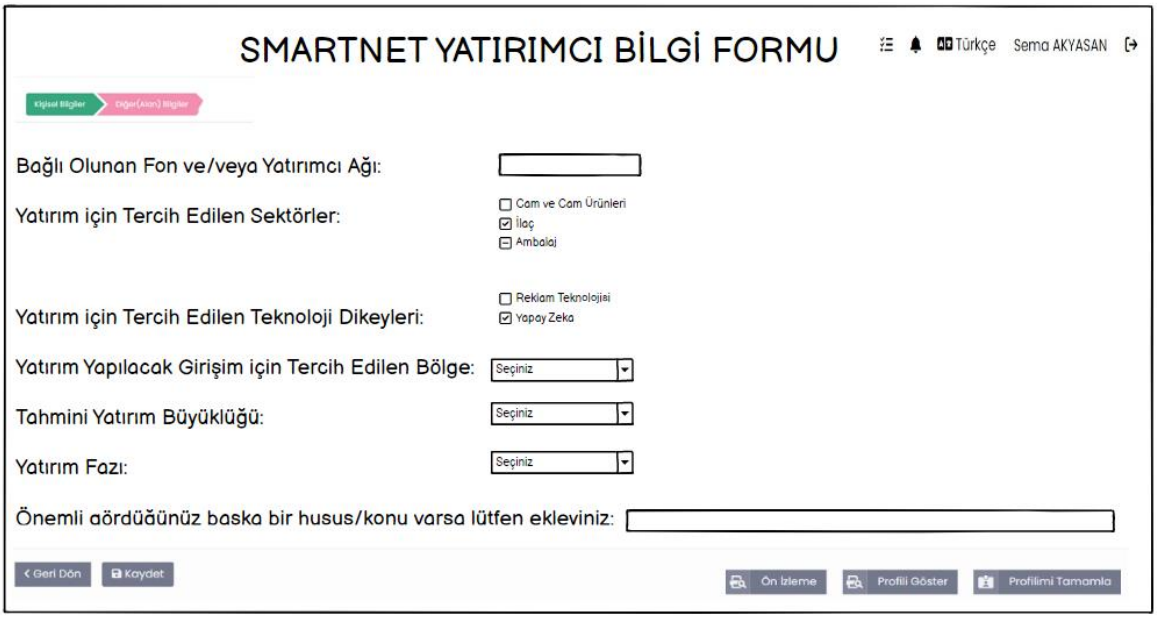

Figure 38 - Investor Information Form Personal Information Tab Mock-up Drawing

Figure 39 - Investor Information Form Field Information Tab Mock-up Drawing

When “Complete My Profile” button is clicked, the information should appear under the Matching Management - Investor List menu item under the title. No adjustments will be made to the profile information after this step. Once the investor profile is completed, it will be visible to entrepreneurs.

6.5.16 Entrepreneurs Seeing the Investor List

The Matching Management menu on the entrepreneur's screen looks like this: Mentor List, My Mentor Requests, Investor List, My Investor Requests.

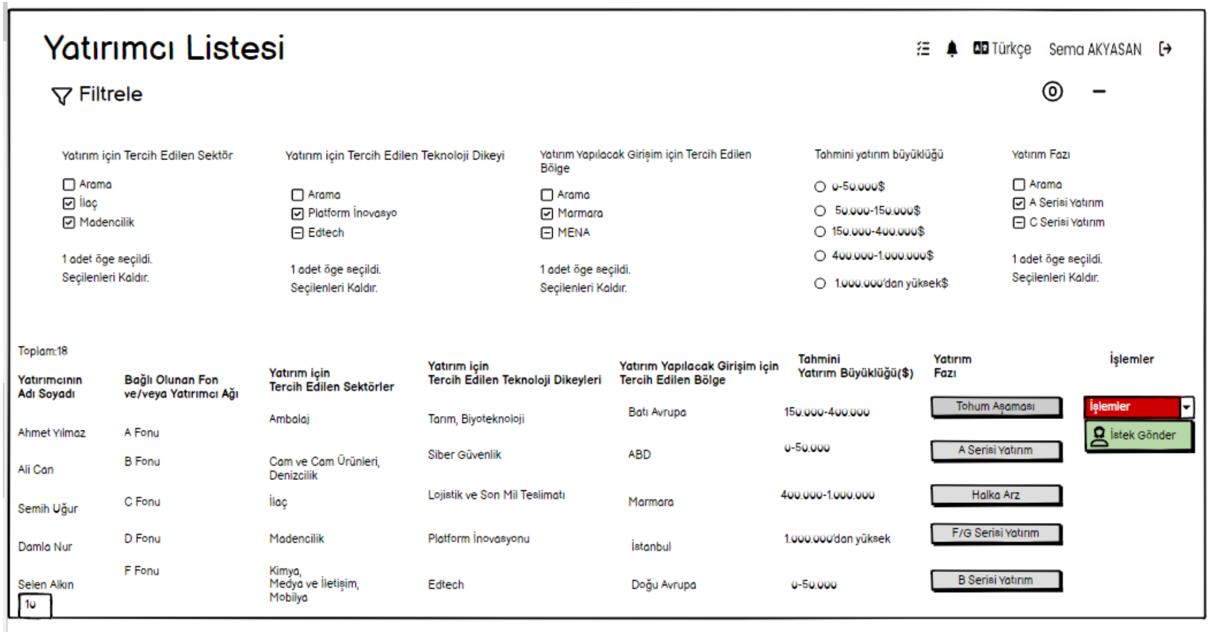

Figure 40 - Investor List Mock-up Drawing

The Send Request option in the transaction area allows the investor to send a request only once.

Clicking Send Request will open a popup page. If the checkbox is unchecked, the Send Request button will not be enabled.

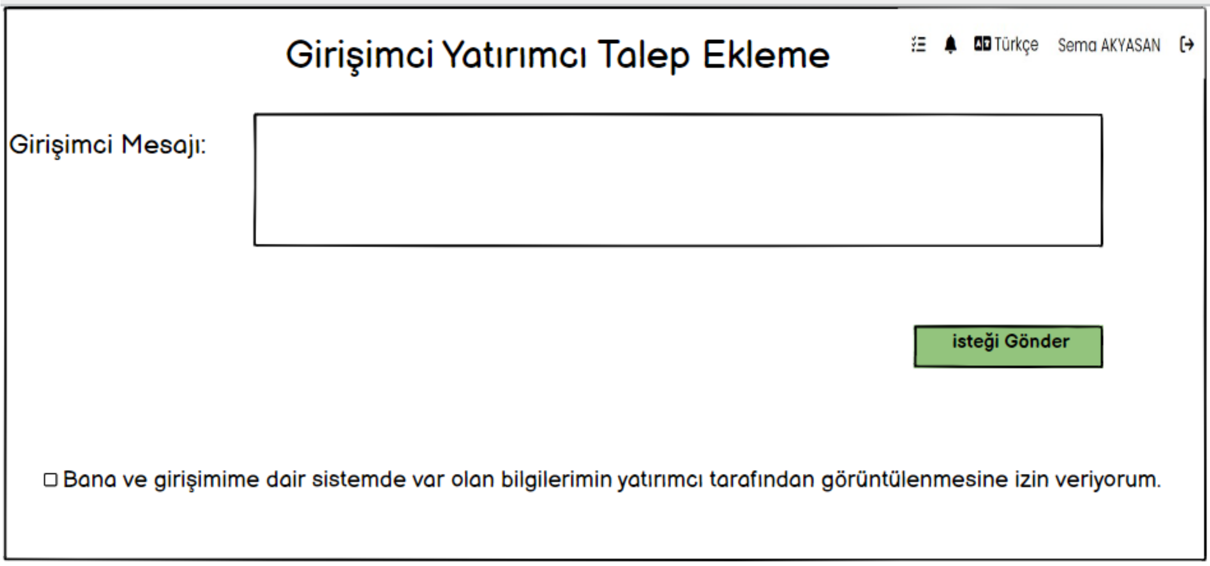

Figure 41 - Investor Request Submission Mock-up Drawing

When a request is sent to the investor, the investor can view it via email as well as be notified via the system. The email screen will look like the following.

Figure 42 - Entrepreneur Notification Mail to the Investor Mock-up Drawing

6.5.17 Investors Entrepreneurs Requests List

Under Matching Management, there should be the My Entrepreneurs menu. In this menu, the investor should see the entrepreneurs who have sent him a request.

The menu that entrepreneurs can see should look like in the list.

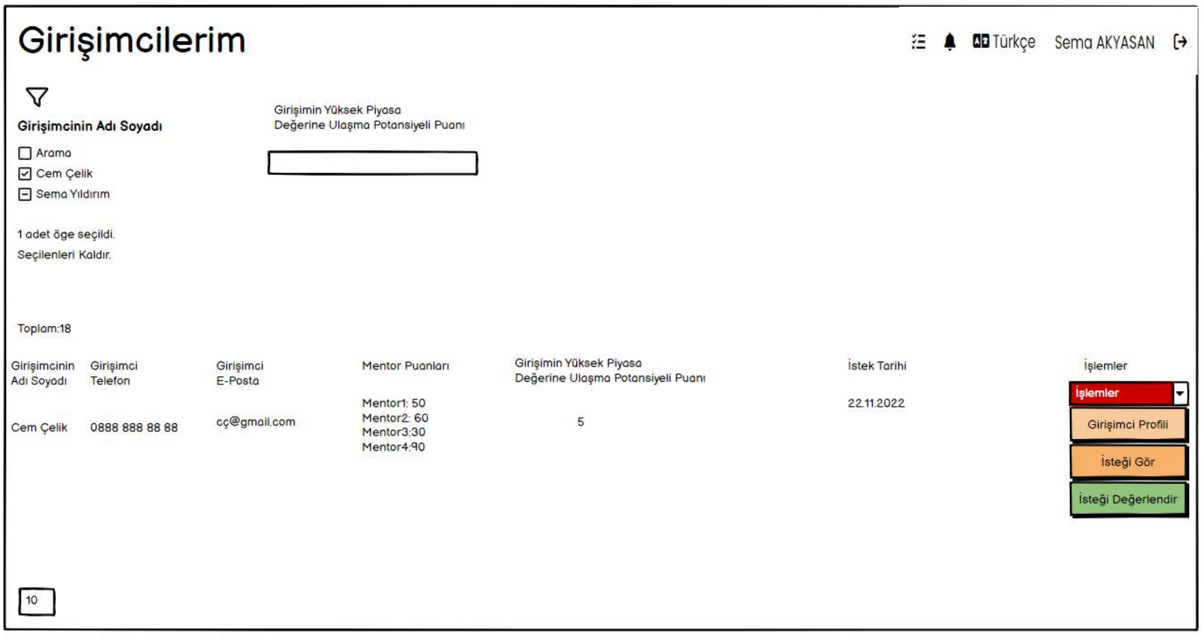

Figure 43 - Investors Entrepreneurs List Screen Mock-up Drawing

On this screen, the investor can see the points that the entrepreneur has received from the mentors. But he can also get information about the date when he submitted the application.

After clicking on the “See Request” option, the following screen will open as a pop-up window.

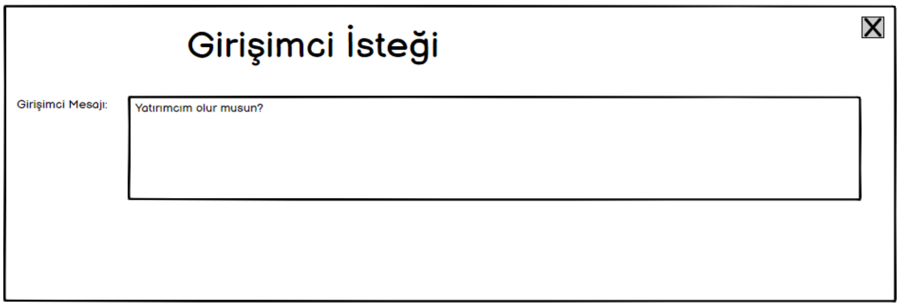

Figure 44 - Investors viewing Entrepreneur Request Mock-up Drawing

6.5.18 Investors Request Evaluation

After clicking the Evaluate request option, the following screen opens as a pop-up.

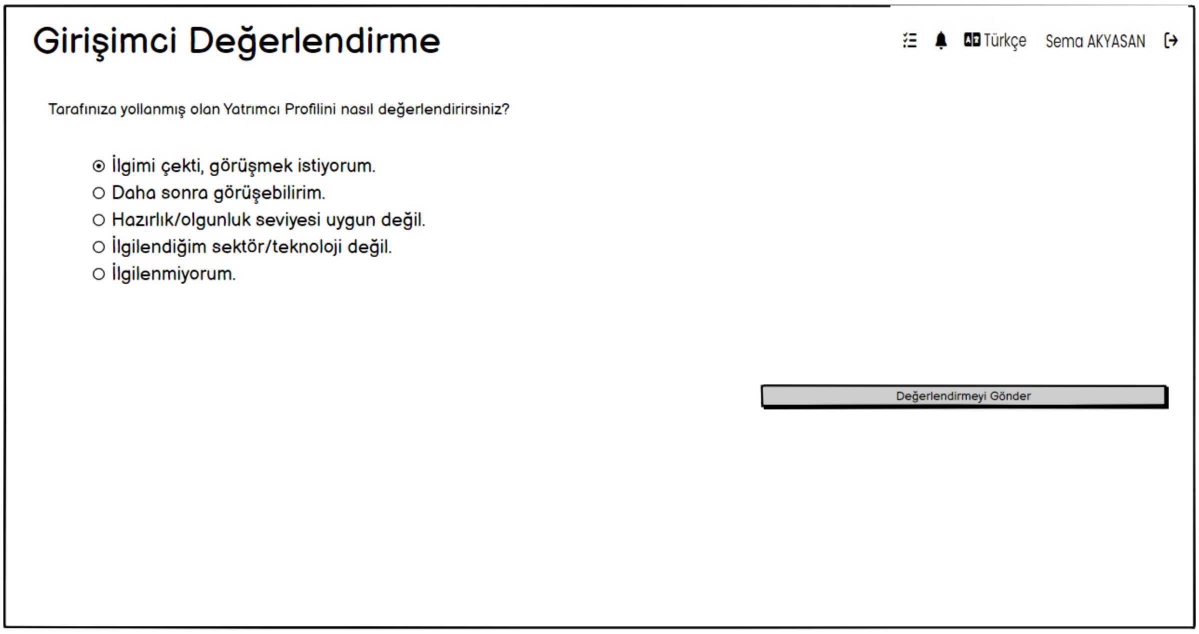

Figure 45 - Investors Entrepreneur Request Evaluation Mock Up Drawing

Only one option can be checked here. When I submit the evaluation, it appears under the investor's response column in the list of the Entrepreneur's Investor Requests menu.

6.5.19 Entrepreneur Viewing Investors Response

The screen where the entrepreneur will see their investor's response should be the My Investor Requests page under Matching Management. The My Investor Requests page looks like this.

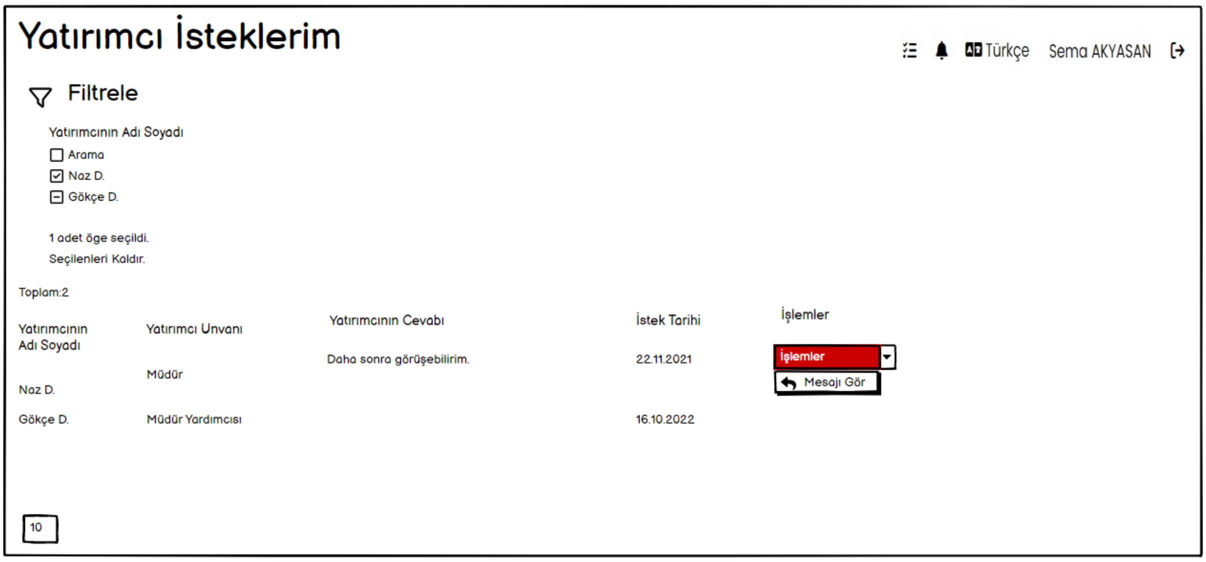

Figure 46 - My Investor Requests Screen Mock-up Drawing

After clicking on the See Message option, the following screen should appear where the entrepreneur writes his message to the investor.

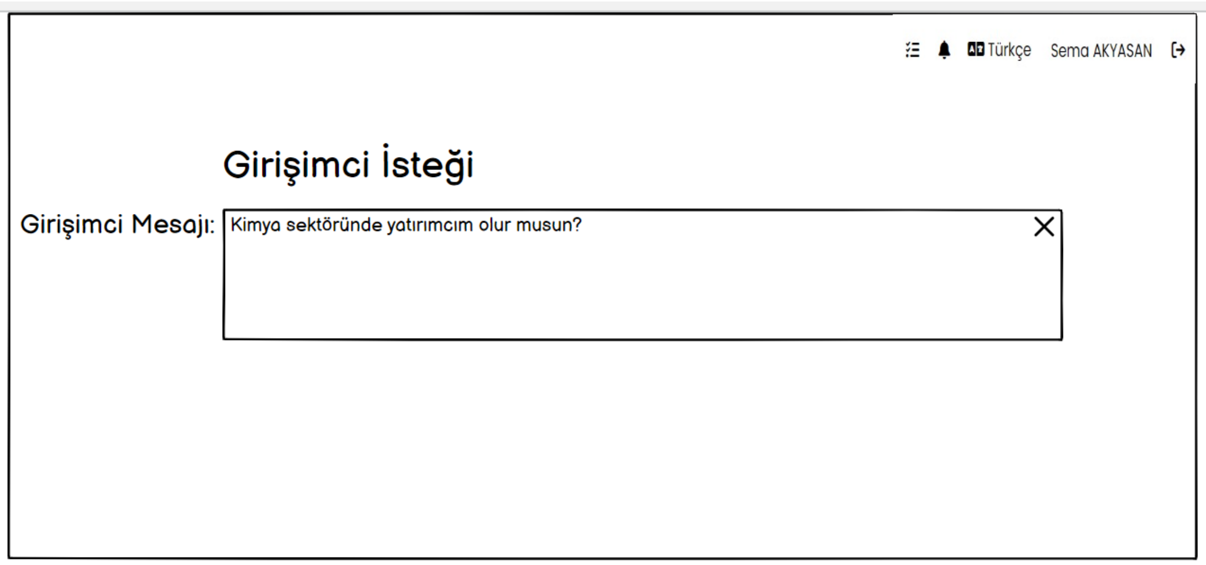

Figure 47 - Entrepreneur Message Screen Mock-up Drawing

6.5.20 Entrepreneurs Information Mail on Investor Request

If the investor responds to the entrepreneur's request, the entrepreneur will be notified both within the system and via e-mail.

Figure 48 - Entrepreneur Information Mail Mock-up Drawing

6.5.21 Investors viewing the Entrepreneurs List

The investor should see all entrepreneurs who have or have not made a request. This screen where you can see all entrepreneurs should be under Matching Management - All Entrepreneurs.

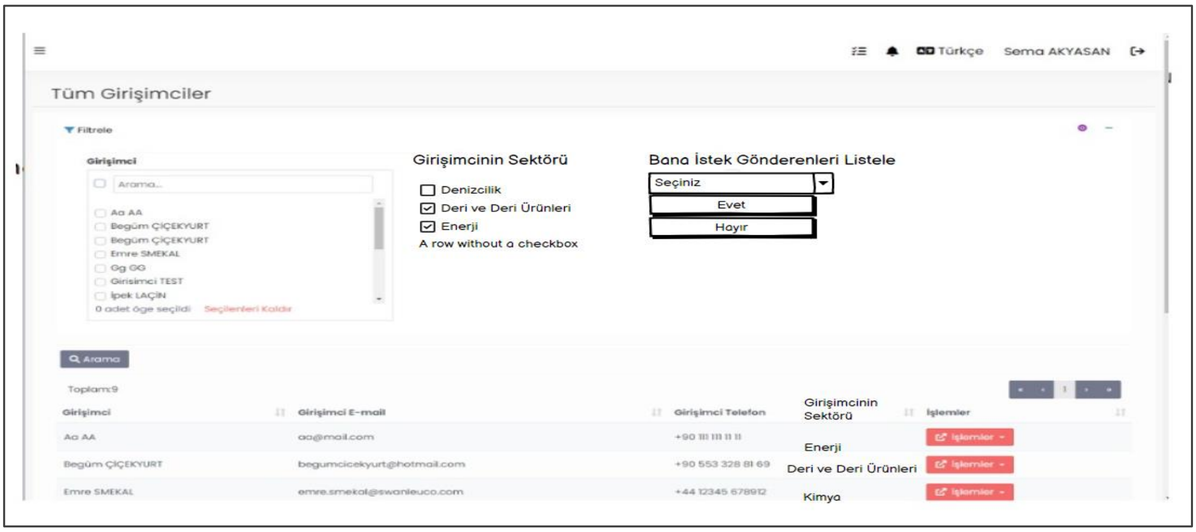

Figure 49 - Investors view All Entrepreneurs Mock-up Drawing

There should be a details option in the action bar. When you click on the details, the details of the entrepreneur should be seen.

6.5.22 Administrators View of Entrepreneur-Investor Matching

Entrepreneur-Investor requests are added under the Twinning Management menu. The manager will see them as Entrepreneur Investor requests under the Enterprise Twinning Management menu item.

Sorting on this page should be by sector. Those with the most matches in a sector will be placed at the top.

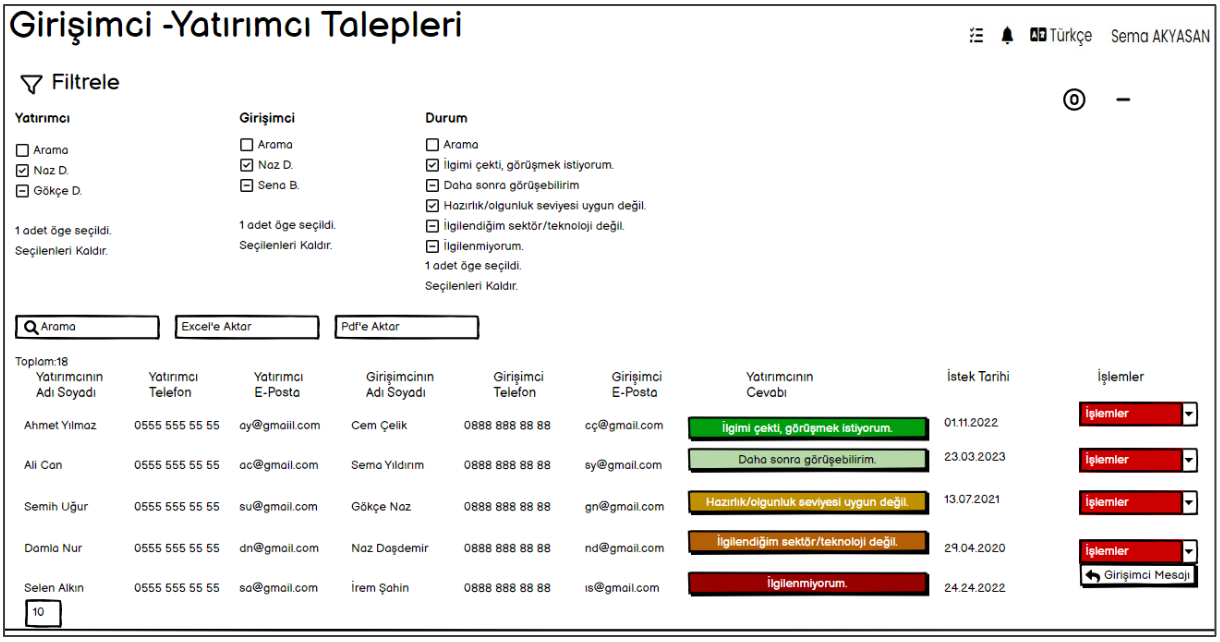

Figure 50 - Admin List of Entrepreneur-Investor Matchmaking Mock-up Drawing

Clicking "View Request" will open a pop-up message of the request sent to the entrepreneur.

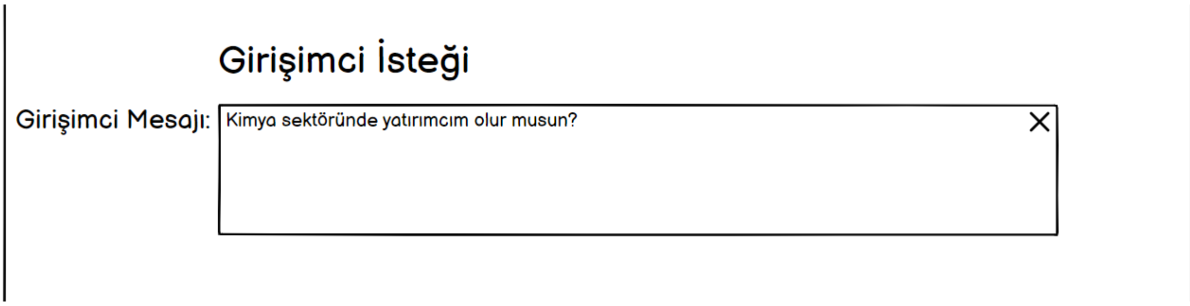

Figure 51 - Administrators viewing the Entrepreneur Request to the Investor Mock-up Drawing

6.5.23 IPR Module

This platform will also be the place for announcing patents. SMEs, startups, entrepreneurs, academics, and industry can publish their patents on SMARTNET so that interested parties can find patents and current topics on the research topic.4.7.1. Creation of the List of Beneficiary Institution of Intellectual Property Rights.

The Institutions List submenu should be located under the User Management menu.

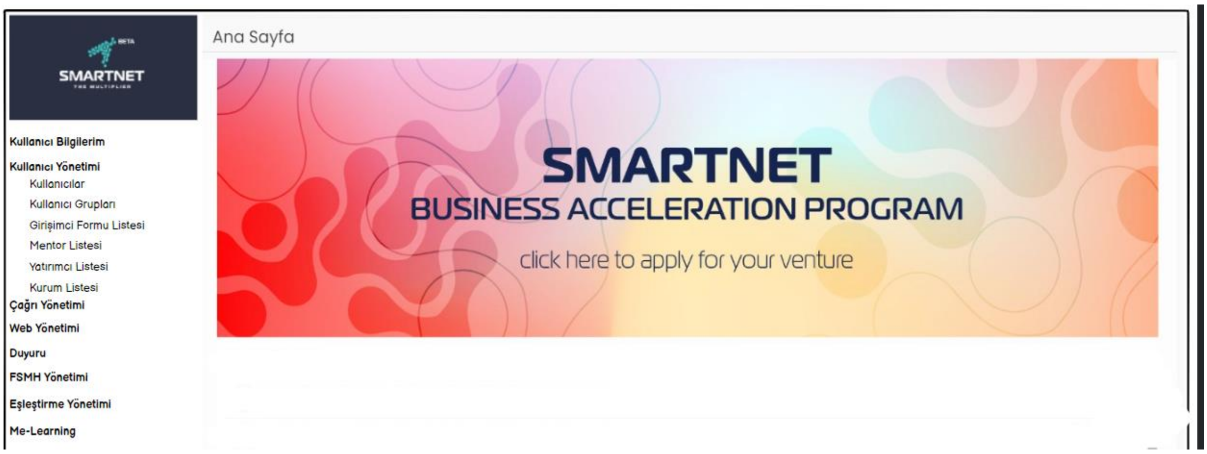

Figure 52 - Institution List Menu Placement

The content of this menu should include the Institution Name, Institution Contact Information, Institution Establishment Date, Total Number of Employees, and User Institution Types. Adding should be possible with the Add New button on the list page. Users will be able to add their information from this section. The list should have an option IPR users in the transactions panel. With this option, users belonging to the institution should be able to be entered.

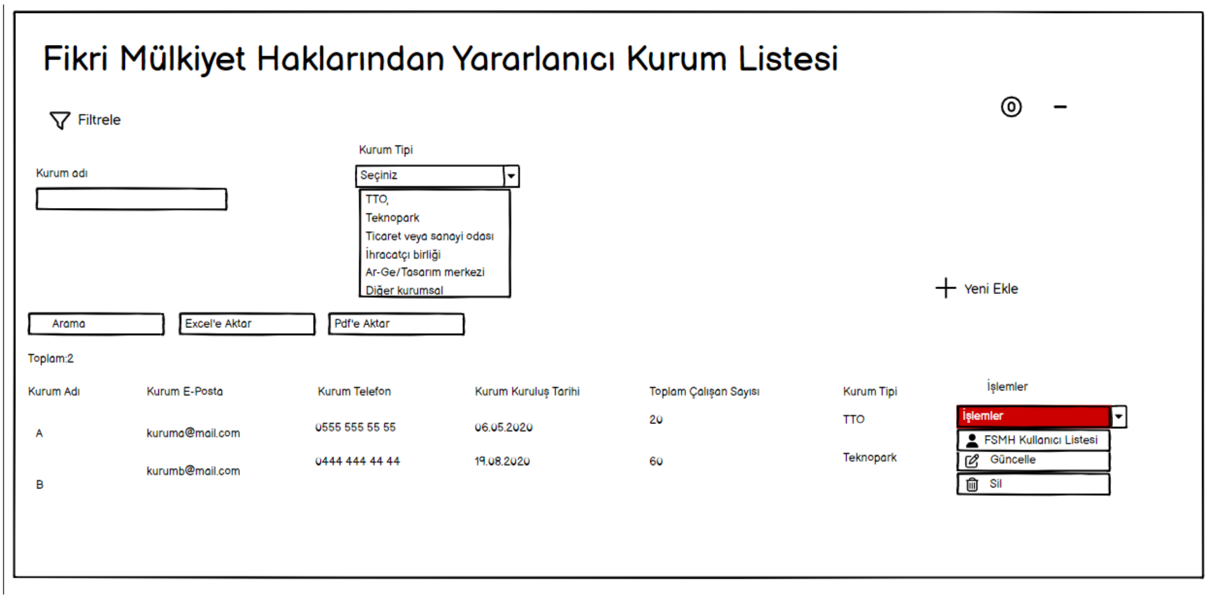

Figure 53 - IPR Module List of Beneficiary Institutions Mock-up Drawing

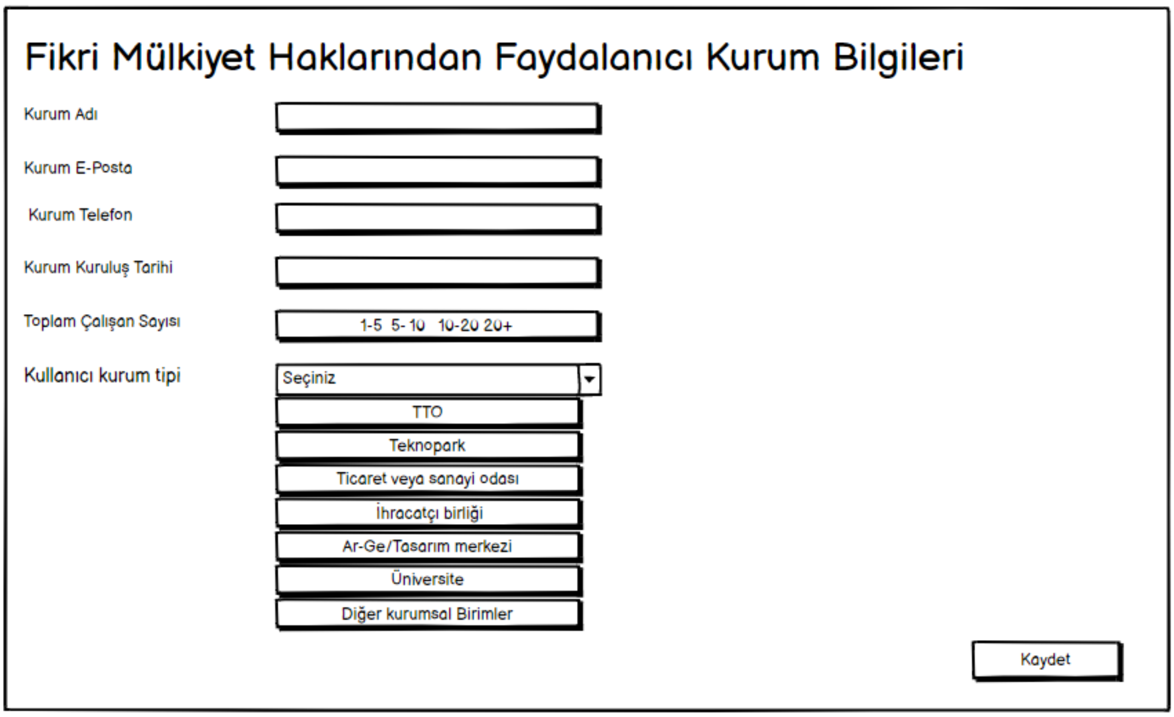

Figure 54 - IPR Module Beneficiary Institution Data Entry Screen Mock-up Drawing

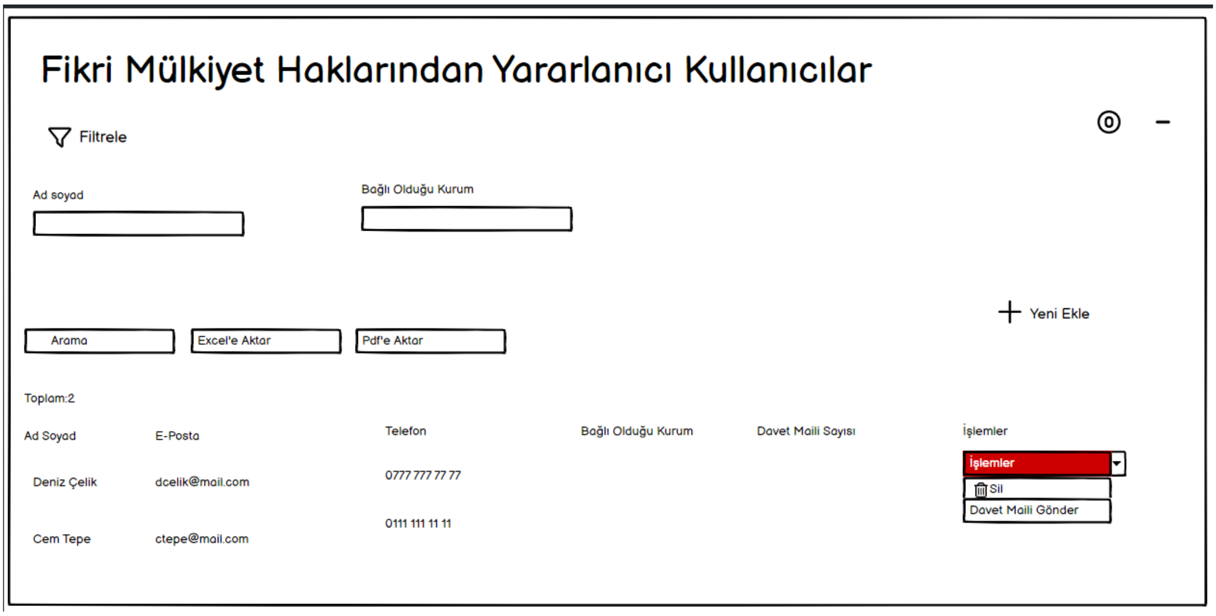

Figure 55 - IPR Module Beneficiary Institution Users List Mock-up Drawing

6.5.24 Sending Invitation Mail to Users

Each user added to the IPR user list should receive an e-mail as follows.

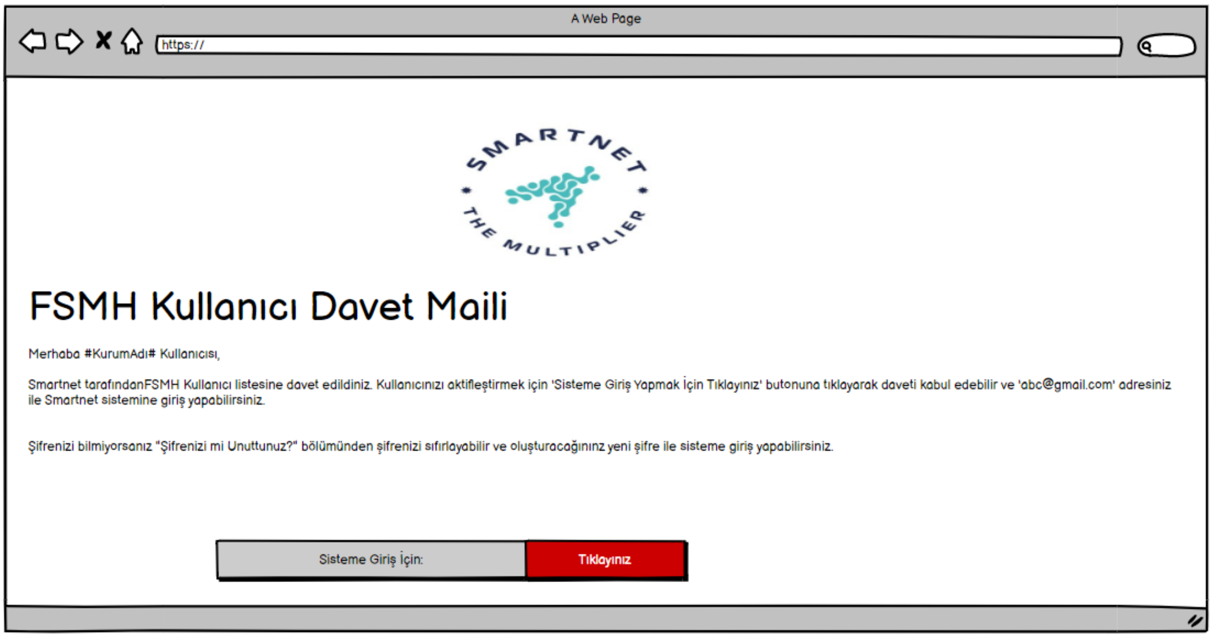

Figure 56 – IPR Module User Invitation Mail Mock-up Drawing

Users must access the system with the "Click" button. Every user who clicks on the "Click here" button must be activated in the system. The "IPR Users" group must be added to the user groups. Users logged in to the system should be added to this group. The content of the group list should be as follows.

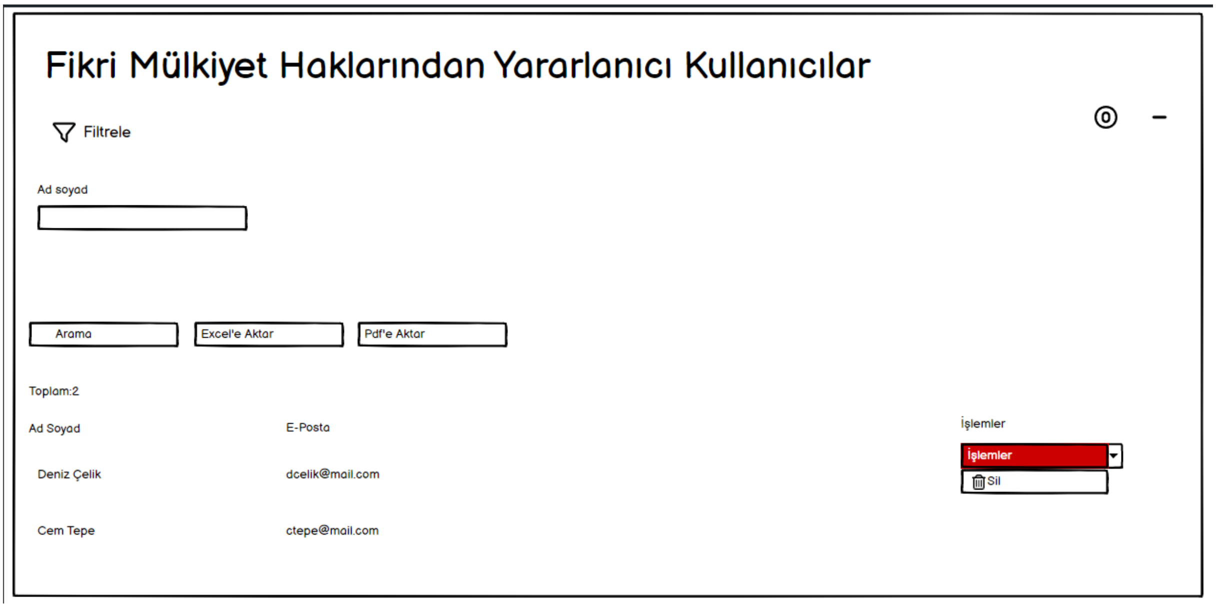

Figure 57 - IPR Module Users List Mock-up Drawing

The screen of the IPR user logging in to the system should look like the following:

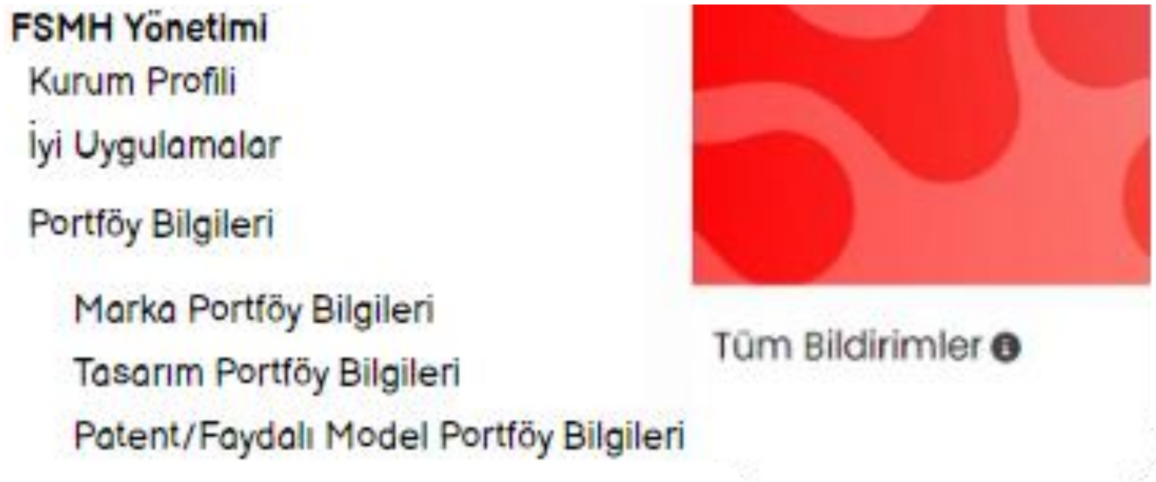

Figure 58 - IPR Module Users Menu Layout Mock-up Drawing

6.5.25 Establishment of Institution Profile

The IPR user logging on to the system should be able to enter the setup information in the Setup Profile menu under the IPR Administration menu.

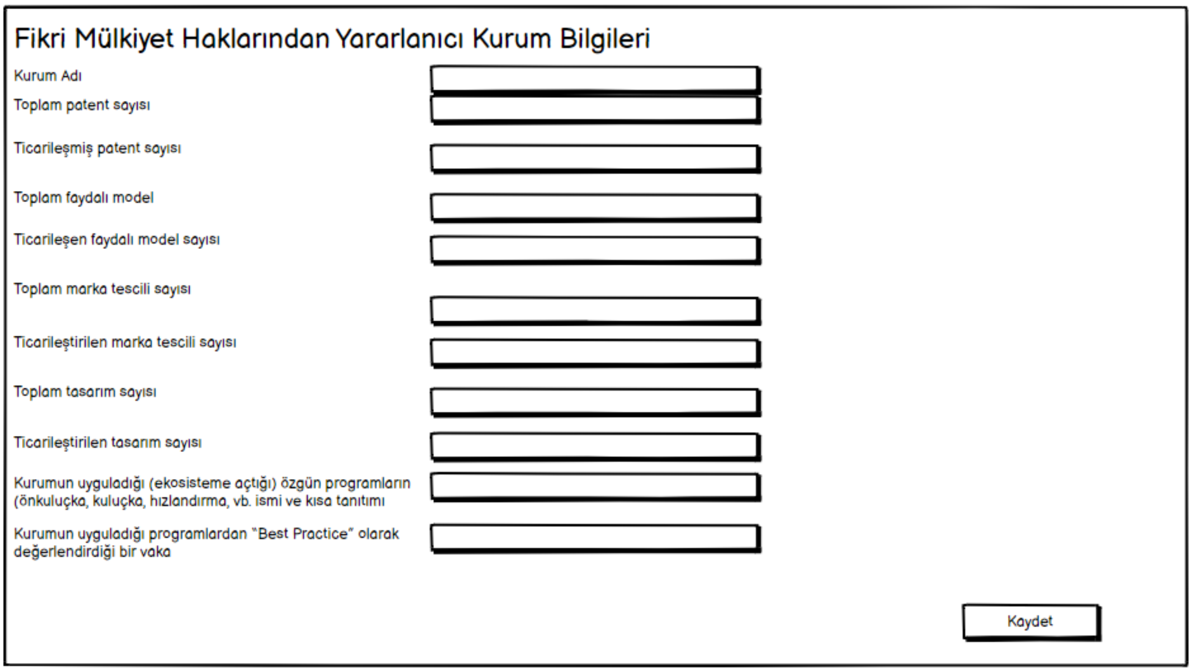

Figure 59 - IPR Beneficiary Institution Profile Entry Mock-up Drawing

Employees in the same organization should have the authority to update information.

This authorization should be possible with the update option in the actions panel.

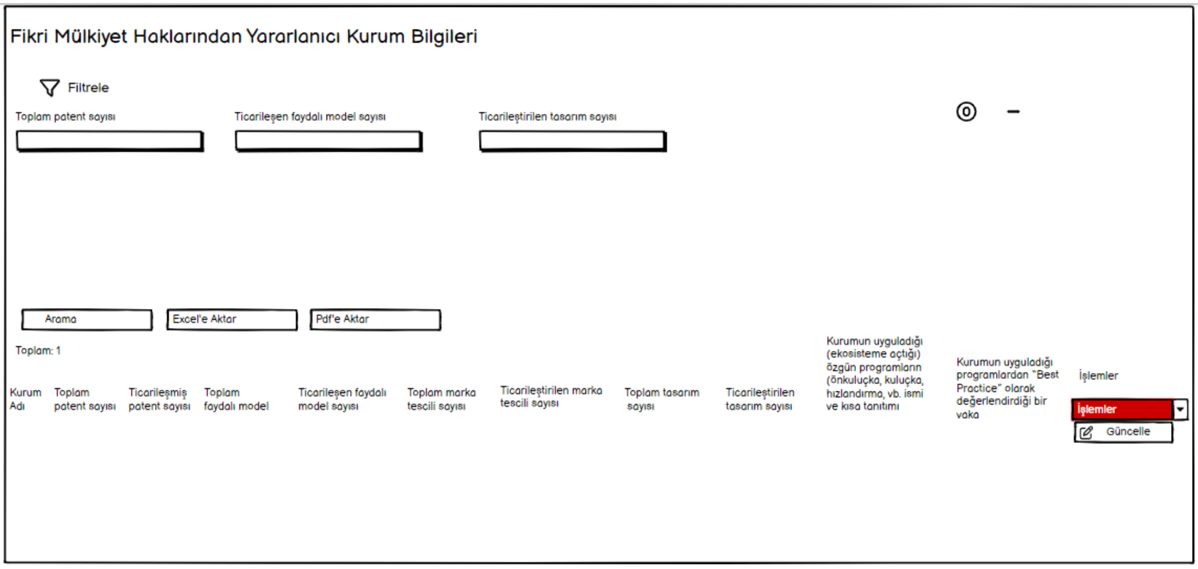

Figure 60 - Information of the Beneficiary Institution of IPR Module Mock-up Drawing

6.5.26 Inputting Good Practices Information

When the page is opened for the first time, the list should be empty. Adding should be done with "Add new" button.

Here the "operations" panel should be restricted according to authority. The user should only be able to update and delete the information added by a person in the institution they belong to.

The View option should allow other institution to see their best practices.

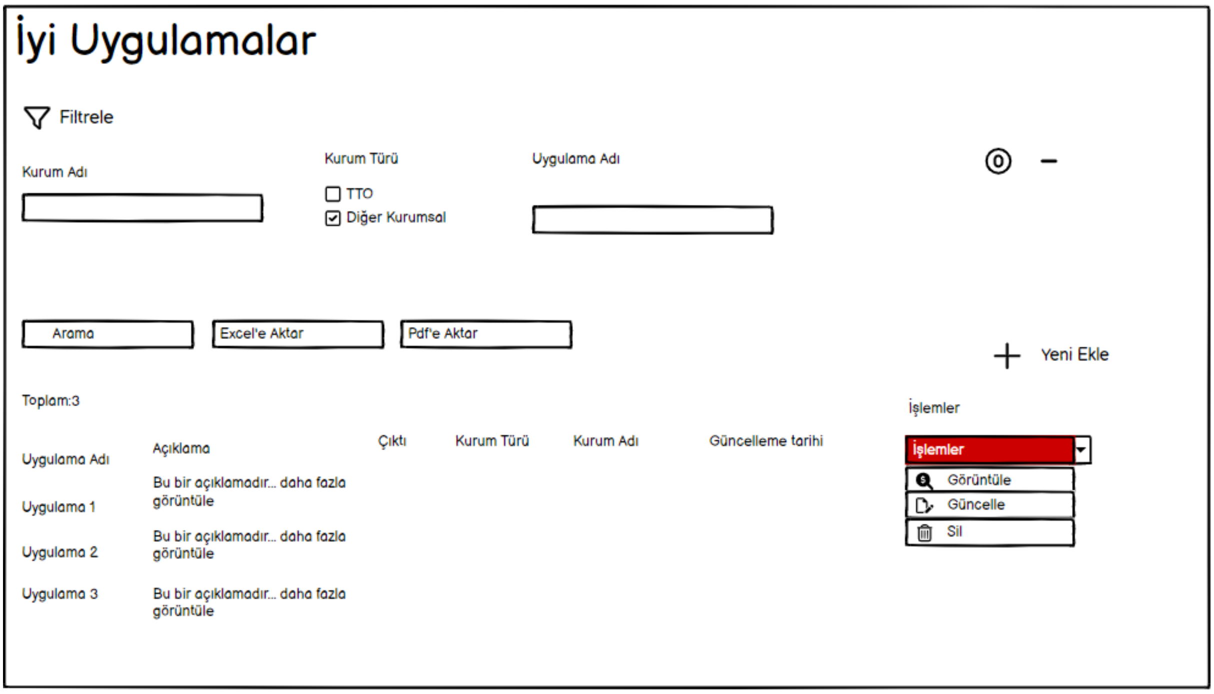

Figure 61 - Best Practises List Mock-up Drawing

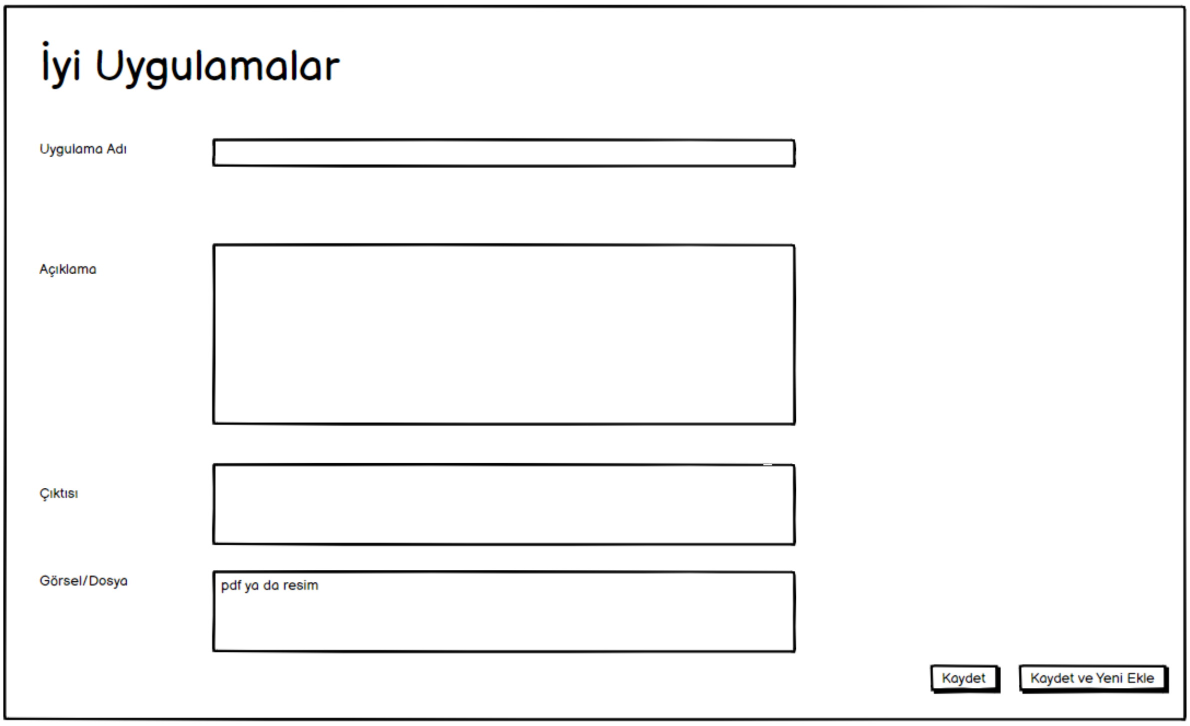

Figure 62 - Best Practises New Entry Mock-up Drawing

6.5.27 Creating Portfolio Information

The IPR user should be able to fill in the content of the list under three main headings: Trademark Portfolio Information, Design Portfolio Information, and Patent/Utility Model Portfolio Information.

6.5.27.1 Creation of Brand Portfolio Information

When the page is first opened, the list should be empty. Adding should be done with “Add new”. Brand name, rights holder, attorney information, etc. on the new entries screen. A screen should appear for entering data.

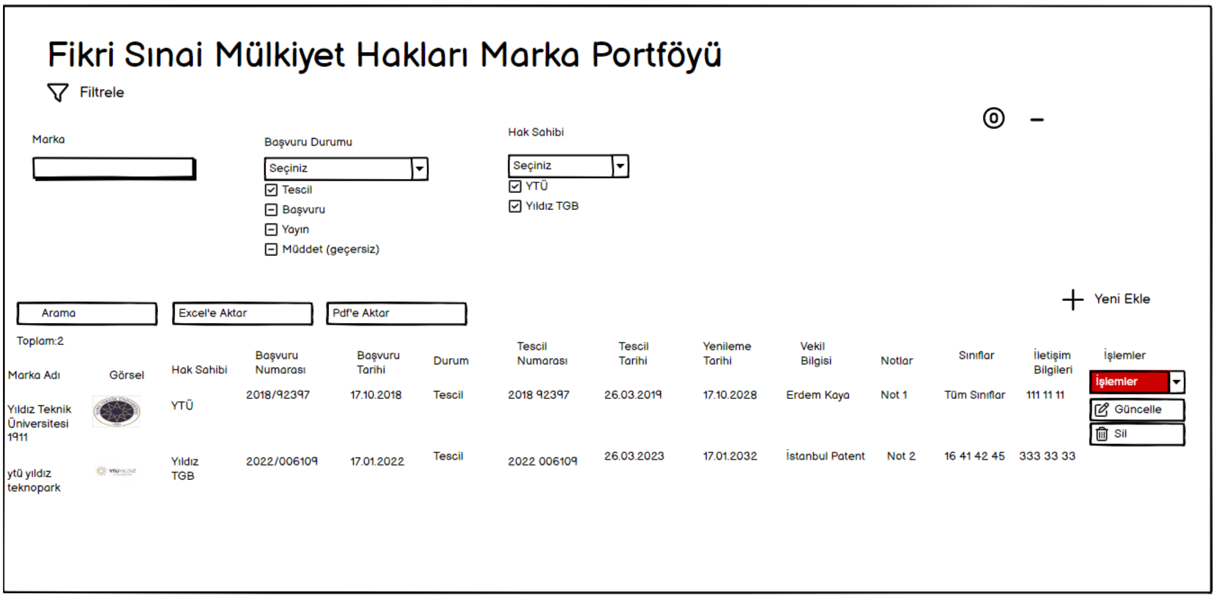

Figure 63 - Brand Portfolio List Mock-up Drawing

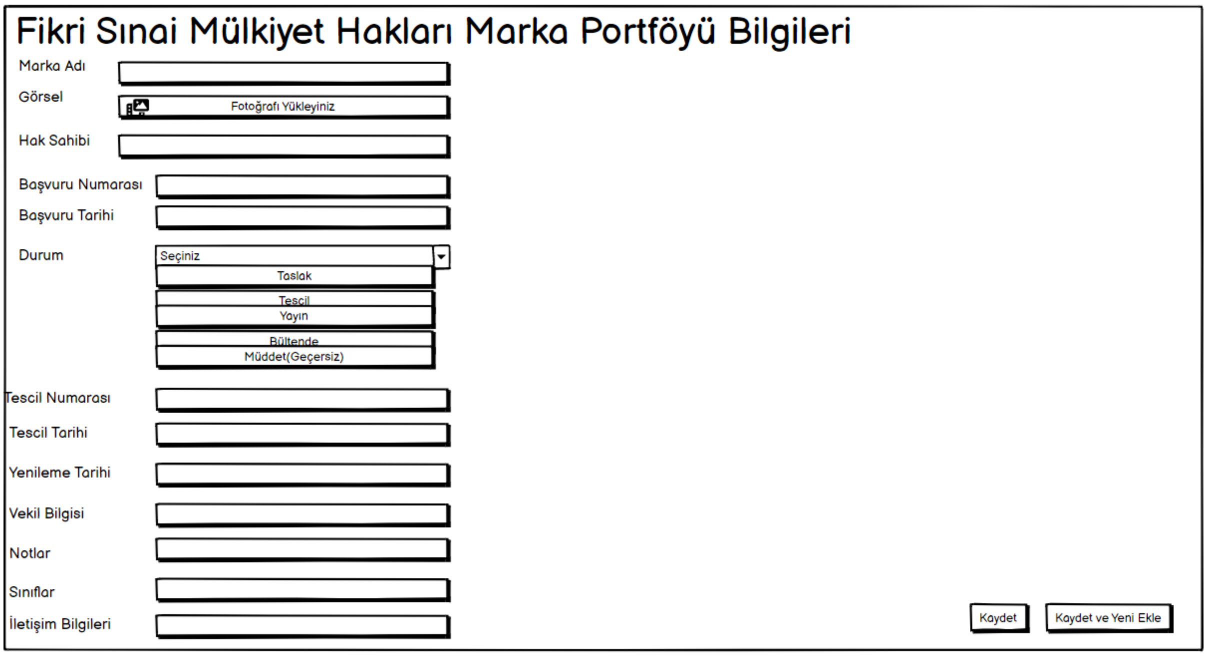

Figure 64 - Adding a Brand Portfolio Mock-up Drawing

6.5.27.2 Creating Design Portfolio Information

When the page is first opened, the list should be empty. Adding should be done with “Add new”. On the new addition screen, the application number*, registration date*, beneficiary*, etc. A screen should appear to enter information.

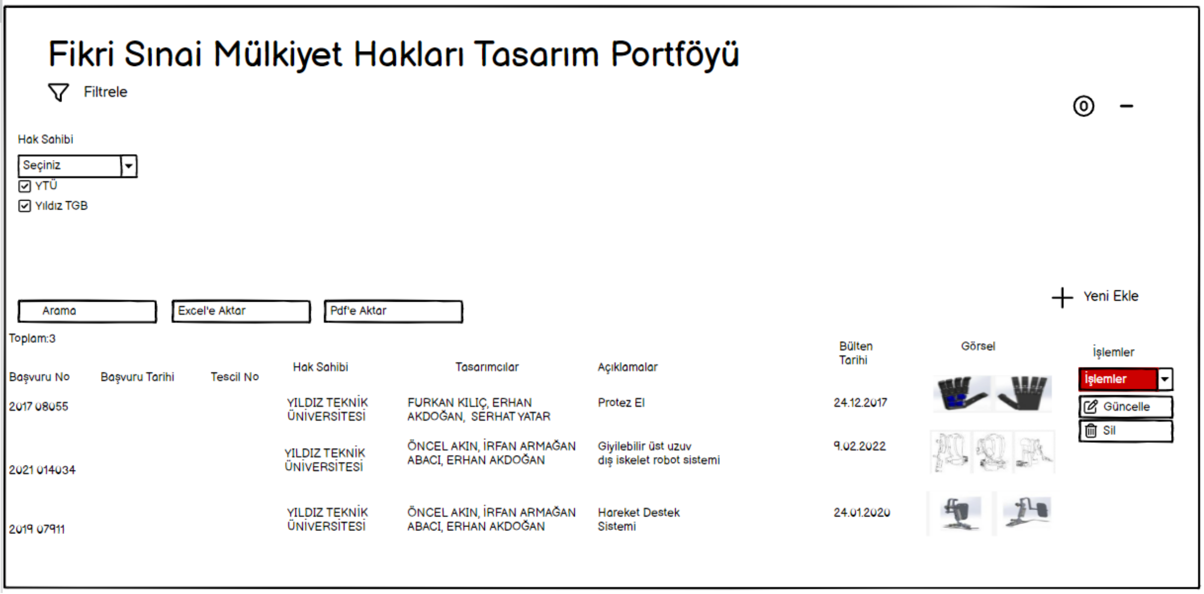

Figure 65 - Design Portfolio List Mock-up Drawing

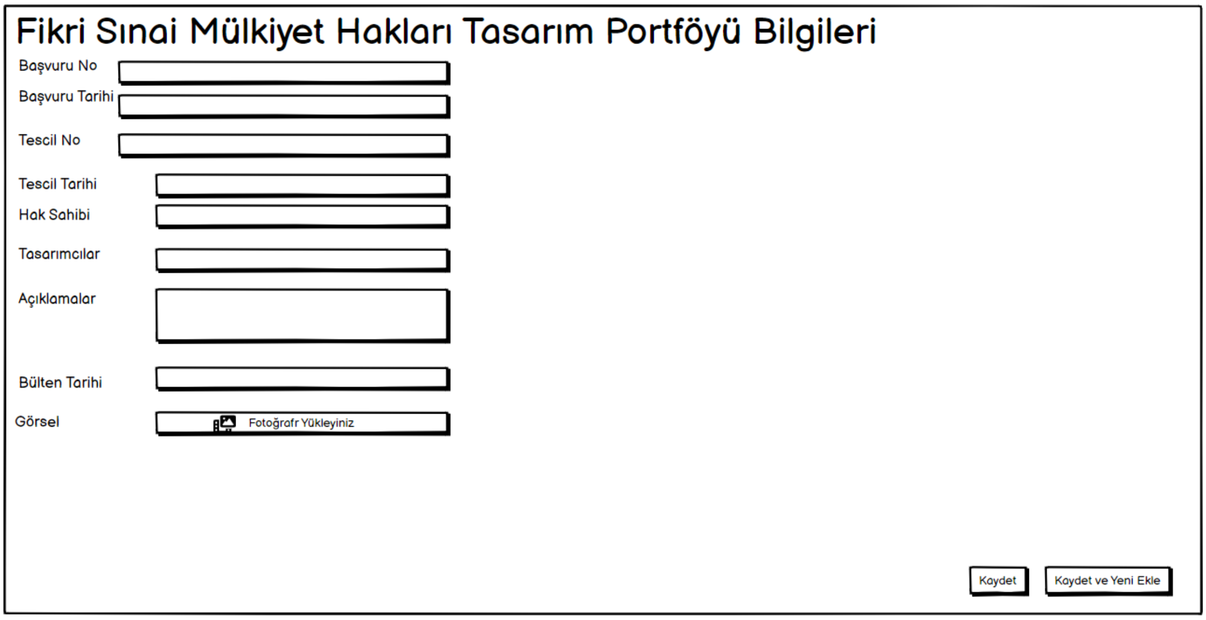

Figure 66 - Adding a Design Portfolio Item Mock-up Drawing

6.5.27.3 Creating a Patent/Utility Model Portfolio

When the page is first opened, the list should be empty. Adding should be done with "Add new". On the new addition screen, Publication Number, Publication Date, Technical Area, Right-holder*, etc. There should be a screen where the information is entered.

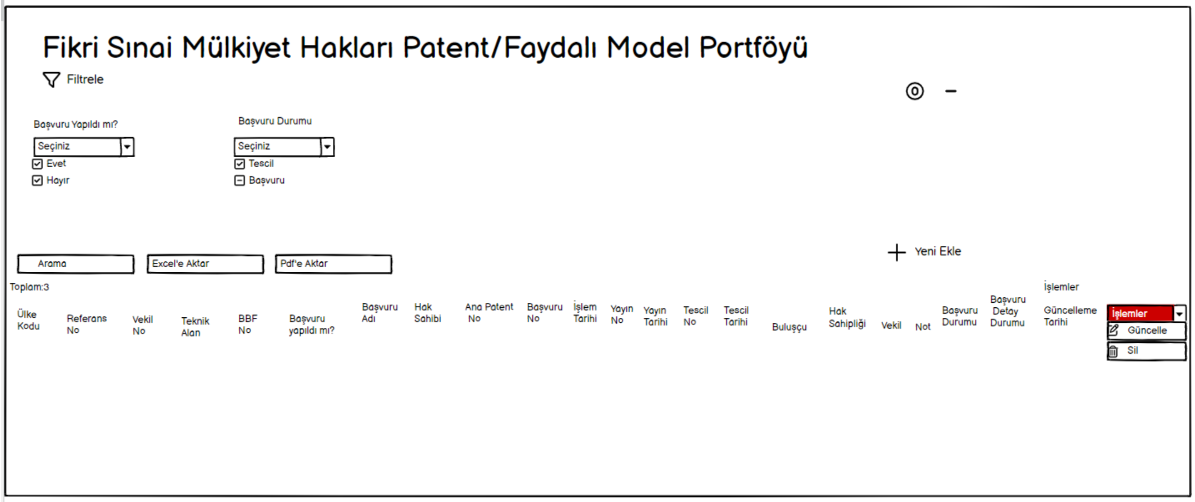

Figure 67 - Patent/Utility Model Portfolio List Mock-up Drawing

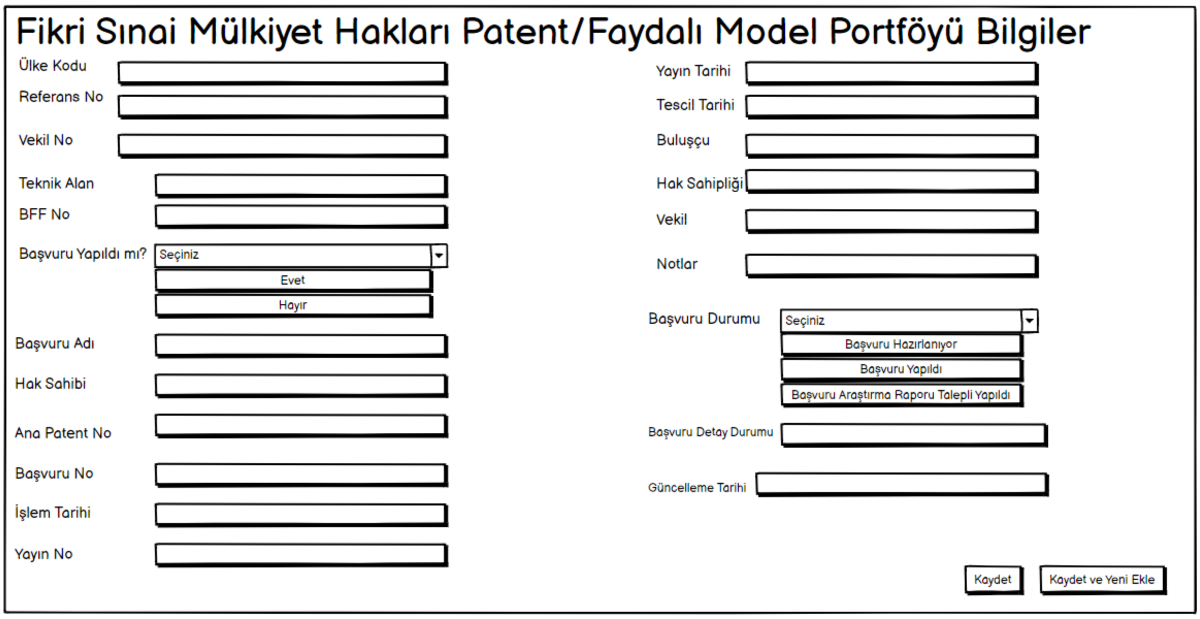

Figure 68 - Adding a Patent/Utility Model Portfolio Item Mock-up Drawing

7. DATABASE DESIGN

Abbreviations

Short Name	**Long Name**	**Definition**
R	requirement	Indicates that the field cannot be left blank.
U	unique	This means that the data is unique.
PK	primary key	This means the data is marked as primary key.
FC	foreign key	This means that the data is marked as a foreign key.

Entrepreneur

field	**R**	**U**	**FK/PK**	**Explanation And Restraint**
ID	R	U	PK	It refers to the identification number that is uniquely given to each Entrepreneur.
Name	R	U		It refers to the area where the business or company name is kept. It cannot be left blank. This is the text box area.
phone	R	U		It refers to the Telephone number given specifically to each Entrepreneur. It cannot be left blank. This is the phone box area.
E-mail	R	U		It refers to the area that is suitable for mail format, specific to each entrepreneur and received for communication purposes. This is the e-mail box field.
WebAddress				It refers to the area where the addresses of the web pages belonging to the entrepreneurs are kept. This is the junction box area.
				It refers to the area where LinkedIn addresses of entrepreneurs are kept. This is the junction box area.
Description				It refers to the area where the addresses of the web pages belonging to the entrepreneurs are kept. This is the text field.
Address				It refers to the area where LinkedIn addresses of entrepreneurs are kept. This is the text field.
FoundationDate	R			It keeps the establishment date field entered for the venture and cannot be left blank. This is the date picker field.

sector	FK (Sector Table)	It refers to the area where the sector belonging to entrepreneurs is held. This is the multiple checkbox field.
TechnologyField		It refers to the area where technology areas belonging to entrepreneurs are kept. This is the multiple checkbox field.
AddUserID		It is the area where the information of the person who added it to the system is stored.
AddDate		It is the field where the date of adding to the system is kept. here the fields should be revised for each entrepreneur. It will be written separated by commas.
UpdateUserId		This is the area where the information of the user who made the update is kept.
UpdateDate		This is the field where the entrepreneur update date is kept.
version		It is the area where information about the last updated status is kept.
PrevVersion		It is the area where the information of the previous version is stored.

Entrepreneur Project Investment Detail

field	**R**	**U**	**FK/PK**	**Explanation And Restraint**
ID	R	U	PK	It refers to the uniquely given identification number for each Entrepreneur Project Investment Detail.
EntrepreneurId	R	U	FC (Entrepreneur Table)	It refers to the area where the entrepreneur or company identity is kept.
status				It is the area where the information about the stage of the entrepreneur or the company is kept. This is the dropdown.
InvestmentType				It refers to the area where the investment type sought for the venture is held. This is the dropdown.

UsagePurpose	It is the area where the intended use of the investment is stored. This is the dropdown.
AddUserID	It is the area where the information of the person who added it to the system is stored.
AddDate	It is the field where the date of adding to the system is kept.
UpdateUserID	This is the area where the information of the user who made the update is kept.
UpdateDate	This is the field where the update date is kept.
version	It is the area where information about the last updated status is kept.
PrevVersion	It is the area where the information of the previous version is stored.

Entrepreneur Staff Detail Information

field	**R**	**U**	**FK/PK**	**Explanation And Restraint**
ID	R	U	PK	It refers to the identification number kept for each personnel.
EntrepreneurId			FC (Entrepreneur Table)	It refers to the area where the entrepreneur or company identity is kept.
Name	R			It is the field where the name information of the personnel is kept. This is the text box area.
Gender	R			This is the area where the gender information of the personnel is kept. This is the dropdown.
position	R			This is the area where the position information of the personnel is kept. This is the dropdown.
AddUserID				It is the area where the information of the person who added it to the system is stored.
AddDate				This is the field where the date of adding to the system is kept.

UpdateUserID	This is the area where the information of the user who made the update is kept.
UpdateDate	This is the field where the update date is kept.
version	It is the area where information about the last updated status is kept.
PrevVersion	It is the area where the information of the previous version is stored.

Entrepreneur Project Information

field	**R**	**U**	**FK/PK**	**Explanation And Restraint**
ID	R	U	PK	It refers to the ID number kept for each project.
EntrepreneurId			FC (Entrepreneur Table)	It refers to the area where the entrepreneur or company identity is kept.
Name	R			It is the field where the name information of the project is kept. This is the text box area.
DescProblem	R			It is the area where the problem definition of the project is kept. This is the text field field.
SolutionProblem	R			Project is the area where problem solutions are kept. This is the text field field.
Destination	R			It refers to the goal that the project is trying to achieve. This is the text field field.
DestGroup	R			Indicates the area where the target group is kept. This is the Multi-item Collector area.
TotalAmount	R			It refers to the total area in which the size of the target market is held. This is the Decimalbox area.
TotalAmountDesc	R			It refers to the area where the size of the targeted market is defined. This is the text field field.

MarketShare	R		It refers to the area where the targeted market share is held as open information proportionally. This is the text field field.
MarketShareDesc	R		It refers to the area where the market share disclosure targeted as net information is kept proportionally. This is the text field field.
phase	R		Indicates the stage of the current product. This is the text drop-down field.
InnovativeAspect	R		It refers to the area where the innovative aspect of the project is kept. This is the text field field.
MarketingMethod	R		It refers to the area where the marketing method of the project is kept. This is the text field field.
PricingPolicy	R		It refers to the area where the Pricing Policy of the project is kept. This is the text field field.
DestinationCustomer SectorId	R	FK (Sector Table)	It refers to the area where the target customer sector of the project is held. This field is a dropdown field.
TechnologyField	R		It is the area where the technology areas of the project are kept. This is a multiple checkbox field. Technology fields such as regtech, legaltech, fintech will be selected.
Description	R		It is the description field of the project. Textarea is a field
AddUserID			It is the area where the information of the person who added it to the system is stored.
AddDate			This is the field where the date of adding to the system is kept.
UpdateUserID			This is the area where the information of the user who made the update is kept.
UpdateDate			This is the field where the update date is kept.
version			It is the area where information about the last updated status is kept.
PrevVersion			It is the area where the information of the previous version is stored.

Entrepreneurship Project Competitor Analysis

field	R	U	FK/PK	Explanation And Restraint
ID	R	U	PK	It refers to the ID number kept for each Project Competitor Analysis.
EntrepreneurId			FC (Entrepreneur Table)	It refers to the area where the entrepreneur or company identity is kept.
ProjectId			FK (Project Table)	It refers to the field where the project ID is kept in the project table to which the competitor analysis is connected.
CompetitorName				It refers to the area where the name of the project competitor is kept. This is the text box area.
pros				It refers to the area where the positive aspects of the opponent are kept. This is the text field field.
Cons				It refers to the area where the negative aspects of the opponent are kept. This is the text field field.
MarketShare				It refers to the area where the competitor has market share. This is the text box area.
AddUserID				It is the area where the information of the person who added it to the system is stored.
AddDate				This is the field where the date of adding to the system is kept.
UpdateUserID				This is the area where the information of the user who made the update is kept.
UpdateDate				This is the field where the update date is kept.
version				It is the area where information about the last updated status is kept.
PrevVersion				It is the area where the information of the previous version is stored.

Entrepreneurial Financial Information

field	R	U	FK/PK	Explanation And Restraint
ID	R	U	PK	It refers to the identification number kept for the financial information of each Entrepreneur.
EntrepreneurId			FC (Entrepreneur Table)	It refers to the area where the entrepreneur or company identity is kept.
year				It is the field where the year information of the financial data of the enterprise is kept. This is the dropdown.
month				It is the area where the month information of the financial data of the enterprise is kept. This is the dropdown.
IncomeExpense				It is the area where the income/expense information of the financial data of the business is kept. This is the radio button area.
amount				It is the area where the amount information of the financial data of the business is kept. This is the text field field. This is the decimal box field.
AddUserID				It is the area where the information of the person who added it to the system is stored.
AddDate				This is the field where the date of adding to the system is kept.
UpdateUserID				This is the area where the information of the user who made the update is kept.
UpdateDate				This is the field where the update date is kept.
version				It is the area where information about the last updated status is kept.

PrevVersion				It is the area where the information of the previous version is stored.

Investor Information

field	**R**	**U**	**FK/PK**	**Explanation And Restraint**
ID	R	U	PK	It refers to the identification number held for each Investor.
InvestorName	R			Indicates the area where the investor's name is kept. This is a text field.
FoundationDate				Indicates the field where the establishment date is kept. Data is a selective field.
sector	R		FK (Sector Table)	It is the area where the sectors of interest of the investor are kept. This is the multiple checkbox field. Sectors such as software, electronics, chemistry will be selected.
TechnologyField	R			It is the area where the technology areas of interest to the investor are kept. This is a multiple checkbox field. Technology fields such as regtech, legaltech, fintech will be selected.
phase	R			The preference of the investor in seeking investment refers to the area in which the firm stage is held. This is a multiple checkbox field. stages such as establishment stage, seed stage will be selected.
InvestmentType	R			It refers to the area where the investor's investment type is kept. This is a field with multiple checkboxes. Investment type such as seed, series A, series B will be selected.
FundSize	R			It is the area where the investor's fund size is kept. The decimal box is a field.
PrevEntrepreneurId			FK (EntrepreneurTable)	It is the area where the previous attempts of the investor are shown.
AddUserID				It is the area where the information of the person who added it to the system is stored.

AddDate				This is the field where the date of adding to the system is kept.
UpdateUserID				This is the area where the information of the user who made the update is kept.
UpdateDate				This is the field where the update date is kept.
version				It is the area where information about the last updated status is kept.
PrevVersion				It is the area where the information of the previous version is stored.

Mentor Information

field	**R**	**U**	**FK/PK**	**Explanation And Restraint**
ID	R	U	PK	It refers to the area where the mentor's phone information is kept.
MentorName	R			It is the area where the sectors that mentors are interested in. This is the multiple checkbox field. Sectors such as software, electronics, chemistry will be selected.
E-mail				It refers to the field where the mentor's sectoral experience (in years) is kept.
				The multiple checkbox is a field that contains the mentor's area of expertise.
phone				It refers to the area where the education level of the mentor is kept.
sector			FK (Sector Table)	Entrepreneurship refers to mentoring interests.
Experience				It is the area where the information of the person who added it to the system is stored.
Profession				This is the field where the date of adding to the system is kept.

EducationLevel				This is the area where the information of the user who made the update is kept.
InterestField				This is the field where the update date is kept.
AddUserID				It is the area where information about the last updated status is kept.
AddDate				It is the area where the information of the previous version is stored.
UpdateUserID				It refers to the area where the mentor's phone information is kept.
UpdateDate				It is the area where the sectors that mentors are interested in. This is the multiple checkbox field. Sectors such as software, electronics, chemistry will be selected.
version				It refers to the field where the mentor's sectoral experience (in years) is kept.
PrevVersion				The multiple checkbox is a field that contains the mentor's area of expertise. It refers to the area where the education level of the mentor is kept.

Sector

field	**R**	**U**	**FK/PK**	**Explanation And Restraint**
ID	R	U	PK	It refers to the ID number held for each Sector.
SectorName	R	U		It is the field where the name of each Sector is kept. The text box is a field.
AddUserID				It is the area where the information of the person who added it to the system is stored.
AddDate				This is the field where the date of adding to the system is kept.
UpdateUserID				This is the area where the information of the user who made the update is kept.
UpdateDate				This is the field where the update date is kept.

version	It is the area where information about the last updated status is kept.
PrevVersion	It is the area where the information of the previous version is stored.