



**ANKARA BİLİM**  
ÜNİVERSİTESİ

# **Software Requirements Specification (SRS) Document**

## **İlk Kontakt: Career Platform**

SENG 491 - Graduation Project I

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# **1 Introduction**

Since the very beginning, humans have been actively seeking to connect and grow with others to expand their tribes. Especially in today's fast-moving and highly competitive professional world, both individuals and organizations have to rely on their social networks. Every new day shows the importance of strong professional networks to be ever more prevalent for career advancements, finding the right job opportunities, and sadly even for keeping the status quo. However, finding the right connections, career opportunities, and learning resources remains a challenge for many users.

This platform addresses these main challenges by providing a complete solution for professional networking, career development, and recruitment processes. By combining advanced AI technologies with an easy-to-use interface, the system offers personalized career guidance, job matching, and networking opportunities for professionals at every career level. The platform gives employers powerful tools for finding and managing talent, making the recruitment process better for everyone involved.

The system includes important features such as customizable professional profiles, AI-powered job and connection suggestions, efficient message management systems, and career progress tracking. These features create an environment where users can actively work toward their career goals. For employers, the platform makes it easier to match candidates with job opportunities, ensuring an effective hiring process.

In addition, the platform builds an environment that encourages professional collaboration, knowledge sharing, and career growth. Whether users are starting their careers, looking to advance, or looking for new opportunities, the platform provides the essential tools and resources they need for professional success.

## **1.1 Project Purpose**

The purpose of the platform is to create a complete and active professional networking and career development system. It aims to help users make meaningful connections, grow in their careers, and find better job opportunities at every stage of their professional path. Using AI-powered tools and an effective content management system, the platform offers personalized career suggestions,

job opportunities, and connection recommendations based on each user's skills, education, and career goals. The platform includes features such as customizable profiles, AI-powered job and connection suggestions, message management, and career guidance tools. These features help users build and grow their professional network while working toward their career goals. For employers, the platform provides tools to make hiring easier by matching them with suitable candidates. In general, the project aims to create a space where people can learn about career opportunities, share their knowledge, and build relationships that lead to both professional and personal success.

## **1.2 Project Scope**

### **1. Overview**

This project aims to develop a comprehensive professional networking and career development platform that combines advanced AI technologies with user-friendly features to help individuals build their careers and connect with like-minded professionals. The platform offers personalized job recommendations, career path guidance, networking opportunities, and communication tools for job seekers and employers. It is designed to support users at any stage of their career, from students to experienced professionals, by providing tailored resources and a high quality user experience.

### **2. Objectives**

- **Personalized Career Development:** Help users navigate their career path with AI-powered suggestions, skill gap analysis, and professional guidance.
- **Efficient Job Matching:** Facilitate the connection between job seekers and employers using advanced matching algorithms, reducing time-to-hire.
- **Networking Enhancement:** Promote meaningful professional relationships through AI-driven connection suggestions and communication tools.
- **Streamlined Recruitment:** Allow employers to efficiently manage job postings, candidate applications, and communication.

- Content Sharing and Collaboration: Provide a platform for users to share knowledge, resources, and industry insight to foster professional growth.

### 3. Deliverables

- Platform Design and User Interface: A responsive and user-friendly design that adapts to desktop and mobile devices, focusing on intuitive navigation.
- Backend Development: A robust backend supporting user management, job matching algorithms, AI-driven recommendations, and real-time messaging.
- AI Integration: Implementation of AI-powered features for job and connection recommendations, career path suggestions, and smart assistance.
- Communication Tools: Integrated messaging system, including text, multimedia, and message history.
- Content Management System: A system for users to create, manage, and share professional content that includes articles and resources.

## 2 Overall Description

This section provides an overview of the "Ilk Kontakt" website, its functionality, features, and interactions. It includes the perspective, core features, constraints, assumptions, and dependencies of the system.

### 2.1 System Perspective

The "Ilk Kontakt" platform functions as a web-based solution accessible across devices, ensuring a straightforward user experience with a mobile-responsive design. It is built to scale efficiently as user demand grows, utilizing a cloud infrastructure for reliability and security. The system is designed to support several user roles, such as job seekers, employers, professionals, and companies. Each user role is improved with specific functionalities that address career growth, job search, and networking needs.

The platform will incorporate advanced data analytics, including user interaction and profile engagement metrics, to ensure optimal network growth. In addition, integration with Natural Language Processing (NLP) will provide career assistance and recommendations tailored to each user's unique goals and experiences. The platform architecture emphasizes a user-centric approach, offering personalization through job matching algorithms, skills validation, and networking tools that foster professional relationships.

### 2.2 System Features

The "Ilk Kontakt" platform is built on a foundation of essential features that work together to create a comprehensive professional networking and career development ecosystem. These features are carefully designed to support diverse user needs, from job seekers and professionals to employers and organizations. The following sections detail the key features that enable users to build their professional networks, advance their careers, and engage in meaningful professional interactions within the platform.

1. **Professional Profile Management:** Users can create comprehensive profiles that highlight their educational background, work experience, skills, and achievements. This feature allows

users to track their career progress and showcase their professional accomplishments, which are visible to potential employers and collaborators.

2. **Networking and Connection Management:** "İlk Kontakt" facilitates the building of connections with colleagues, peers, and industry professionals. Users can manage their connections, send private messages, and engage with others through specialized groups based on shared interests or expertise areas.
3. **Job Opportunities:** The platform enables job seekers to access personalized job listings based on their skills and experience. Employers can post job vacancies and utilize algorithms to match suitable candidates. The system suggests relevant opportunities for users, improving both the job search and the recruitment experience.
4. **Knowledge Sharing and Learning:** Users can share and exchange insights, articles, and industry news, creating a collaborative learning environment. This feature helps professionals stay informed about sector developments and encourages knowledge exchange, which is essential for continuous career development.
5. **Company Profiles and Branding:** Companies can create profiles to promote their work culture, advertise job openings, and build a presence on the platform. This allows them to attract talent and engage with potential candidates who align with their organizational values and job requirements.
6. **Smart Career Assistant:** Integrated with NLP capabilities, this assistant provides personalized recommendations for career development. Users can receive suggestions on job opportunities, skill-building courses, or networking strategies based on their platform activity and profile information.
7. **Data Analytics and Reporting:** "İlk Kontakt" offers users access to performance metrics such as profile views, connection growth, and interaction rates. These insights allow users to assess their networking effectiveness and adjust strategies to maximize their professional development.



8. **Mentorship and Collaboration Opportunities:** The platform facilitates mentorship connections by pairing users with experienced professionals. Mentorship features are designed to provide career guidance, help users navigate industry challenges, and foster collaboration among professionals with complementary skills and expertise.

## 2.3 User Classes and Characteristics

### 1. Standard Users

Characteristics:

- Includes students, recent graduates, professionals, and job seekers.
- With a focus on creating detailed professional profiles, managing connections, applying for jobs, and accessing career resources.

Capabilities:

- Create and customize profiles with personal, educational, and professional information.
- Use the Smart Career Assistant for career path recommendations, job suggestions, and connection building.
- Interact with the community through content sharing, messaging, and networking features.

### 2. Employers

Characteristics:

- Recruiters, HR professionals, and company representatives looking to hire talent or promote their organizations.

Capabilities:

- Post job listings with detailed descriptions, requirements, and application workflows.
- Use candidate matching algorithms to identify and engage suitable applicants.

- Analyze job posting performance metrics to optimize recruitment strategies.

### 3. Administrators

Characteristics:

- Includes platform managers responsible for ensuring smooth operation, content moderation, and system compliance.

Capabilities:

- Oversee user activity and manage flagged or inappropriate content.
- Monitor platform performance and address security or technical issues.
- Provide support for account management and enforce system policies.

## 2.4 Design and Implementation Constraints

The design and implementation of the "İlk Kontakt" platform are subject to several constraints that must be addressed to ensure the scalability, usability, and effectiveness of the system.

1. **Scalability and Performance:** The platform must be scalable to accommodate a growing number of users, which will increase demand for processing power and data storage. The cloud infrastructure must be designed to scale horizontally to handle surges in user activity without compromising performance.
2. **Security and Data Privacy:** As "İlk Kontakt" deals with sensitive user information such as background information, job histories, and personal details, strong data security measures must be implemented. This includes encryption, secure authentication protocols, and adherence to privacy laws (such as GDPR) to ensure that users' data is protected from unauthorized access.
3. **Cross-Platform Compatibility:** The platform must be designed to be fully mobile-responsive and compatible on different devices (desktops, tablets, smartphones). It should work on both Android and iOS operating systems, as well as different web browsers, ensuring a consistent user experience across all platforms.

4. **Real-Time Features:** Features like messaging, job matching notifications, and updates need to be delivered in real time. Implementing these features efficiently may require the use of web sockets or similar technologies to ensure instant communication between users and the system.
5. **Integration with External Services:** The platform should allow integration with external services like LinkedIn for profile import, email systems for job alerts, and payment gateways for premium features. This integration needs to be smooth and secure to avoid disruption of services.
6. **User-Friendly Interface:** Given that the platform targets a wide demographic of users with varying levels of technical proficiency, the user interface (UI) should be intuitive and easy to navigate. The design should emphasize simplicity and clarity, with an accessible onboarding process for new users.
7. **Artificial Intelligence (AI) and Machine Learning Models:** The AI-based features, such as the job matching algorithm and the smart career assistant, must be continuously refined to ensure they provide personalized and relevant recommendations. These models will need ongoing training and optimization to adapt to users' changing preferences and behaviors.

## 2.5 Assumptions and Dependencies

The success of the "İlk Kontakt" platform relies on several assumptions and dependencies that need to be considered during development:

1. **User Engagement:** It is assumed that users will actively engage with the platform and continuously update their profiles, share content, and participate in networking activities. The effectiveness of features such as job matching, career assistance, and networking will depend on the frequency and quality of user input.
2. **Data Availability:** The platform assumes that users will provide accurate and up-to-date information for their profiles. Accurate data is essential for generating personalized job recommendations, career development suggestions, and meaningful networking opportunities.

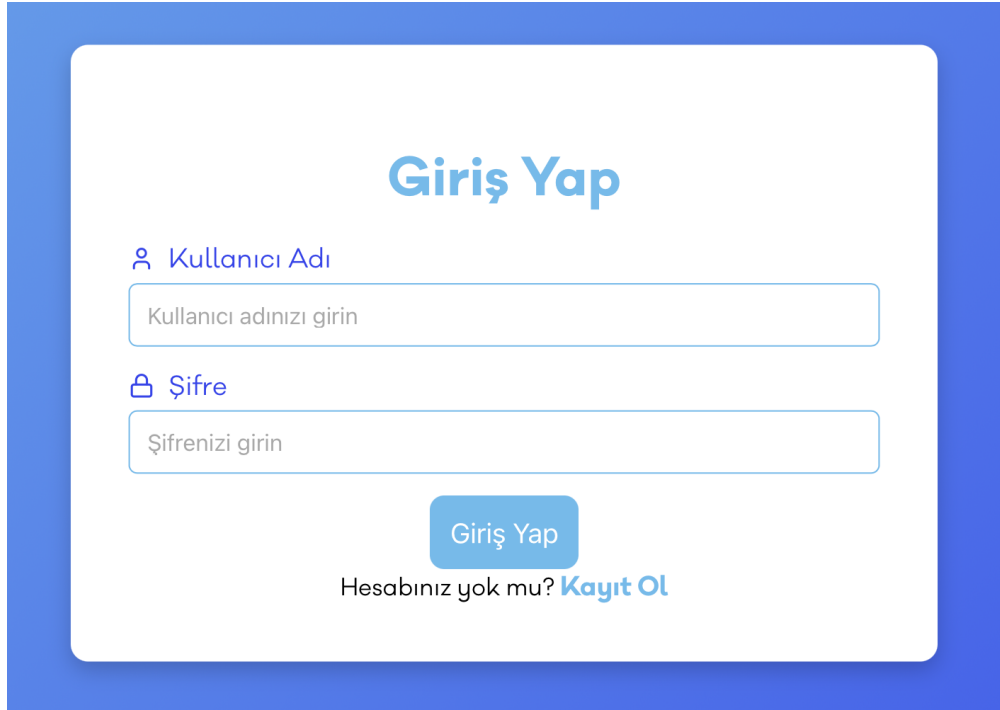
3. **External Service Availability:** The integration with third-party services (e.g., LinkedIn for profile import, email notification systems, and payment gateways) assumes that these services remain stable and accessible. Any disruption in these services could affect the platform's functionality.
4. **Cloud Infrastructure:** The platform's performance and scalability are dependent on the availability of a reliable cloud infrastructure provider (such as AWS, Google Cloud, or Azure). The choice of infrastructure must be capable of supporting the platform's growing user base and ensuring minimal downtime.
5. **Regulatory Compliance:** "İlk Kontakt" assumes that users' data will be collected, processed, and stored in compliance with relevant privacy and data protection regulations (e.g., GDPR, CCPA). The platform's legal team must ensure ongoing compliance to avoid legal risks
6. **AI Model Accuracy:** The accuracy of the AI-driven job matching algorithm and smart career assistant will depend on the availability of high-quality training data. The system's ability to provide relevant recommendations and career advice is reliant on continuous improvement of the underlying machine learning models.
7. **Market Adoption:** The platform assumes that it will gain traction within its target audience and that professionals will find value in using the platform for networking, career development, and job searching. Marketing and user acquisition strategies are critical to achieving this assumption.
8. **Technology Availability:** The development of AI models, real-time messaging, and job matching algorithms assumes the availability of appropriate technology stacks, such as machine learning libraries (TensorFlow, scikit-learn), real-time databases (Firebase, Redis), and web development frameworks (React, Angular).

## 2.6 User Interface Overview

This section provides visual representations of key interfaces within the İlk Kontakt platform, demonstrating the implementation of core features and user interactions.



Figure 1: Platform Homepage Interface



The image shows a user login interface with a blue border. At the top, the title "Giriş Yap" is displayed in a large, bold, blue font. Below the title, there are two input fields. The first field is labeled "Kullanıcı Adı" (Username) with a user icon and contains the placeholder text "Kullanıcı adınızı girin". The second field is labeled "Şifre" (Password) with a lock icon and contains the placeholder text "Şifrenizi girin". Below these fields is a blue button with the text "Giriş Yap". At the bottom, there is a link that says "Hesabınız yok mu? **Kayıt Ol**".

## Giriş Yap

Kullanıcı Adı

Şifre

Giriş Yap

Hesabınız yok mu? **Kayıt Ol**

Figure 2: User Login Interface

## Kayıt Ol


 Ad Soyad

 E-posta

 Rolünüz

Öğrenci

 Üniversite

 Kullanıcı Adı

 Şifre

 Şifre Tekrar

Kayıt Ol

Zaten bir hesabınız var mı? [Giriş Yap](#)

Figure 3: User Registration Interface

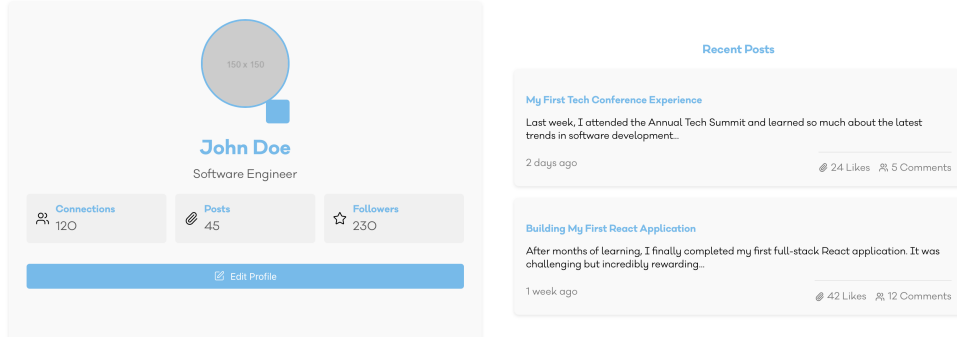


Figure 4: User Profile Management Interface

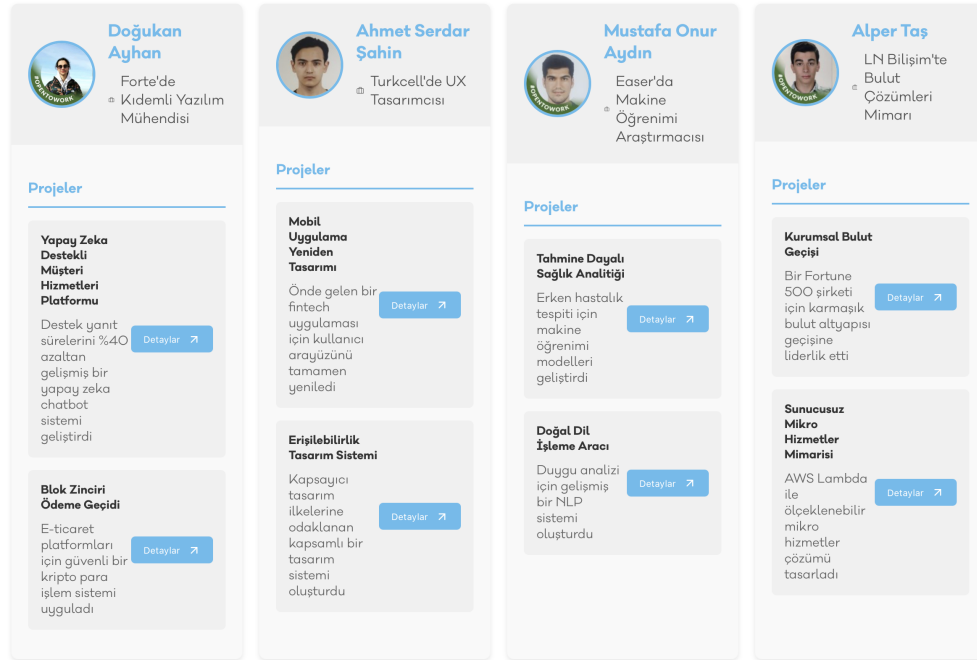



Figure 5: Social Networking and Connections Interface




### Yazılım Mühendisi - XYZ Corp

 on-site

XYZ Corp, dinamik ekibine katılacak yetenekli bir yazılım mühendisi arıyor.

 Konum: San Francisco, CA

 Deneyim: 3+ yıl


 Maaş: \$90,000 - \$120,000


[Şimdi Başvur! >](#)


### Veri Bilimci - ABC Technologies

 remote

ABC Technologies, makine öğrenimi ve veri analizi konusunda uzman bir veri bilimci arıyor.

 Konum: Uzaktan Çalışma

 Deneyim: 2+ yıl

 Maaş: \$85,000 - \$110,000

[Şimdi Başvur! >](#)

Figure 6: Job Search and Posting Interface



## React ile Modern Web Geliştirme

Sıfırdan ileri seviye React uygulamaları geliştirmeyi öğrenin. Profesyonel frontend geliştirme teknikleri ve en iyi uygulamalar.

**Mehmet Yılmaz**

Senior Frontend Mühendisi

6 Hafta

Orta Seviye

**499 TL**

Kursa Kayıt Ol >

Figure 7: Course and Learning Resources Interface

### Bildirimler

**John'dan Yeni Mesaj**

John'dan yeni bir mesaj aldınız! Yarın saat 3'teki toplantı hakkında sorular soruyor. Katılımınızı onaylamak için mesajındaki detayları kontrol etmeyi unutmayın.

[Geri Dönüş Yap](#)

**Alice'den Bağlantı İsteği**

Alice size bir bağlantı isteği gönderdi. Sizinle ağ kurmak ve olası bir projede iş birliği yapmak istiyor.

[Okundu Olarak İşaretle](#) [Geri Dönüş Yap](#)

**Profil Güncellemesi Başarılı**

Profiliniz başarıyla güncellendi. Tüm değişiklikler kaydedildi ve profiliniz artık son başarılarınıza daha uygun hale getirildi.

[Geri Dönüş Yap](#)

Figure 8: User Notification Center

## 2.7 Project Figures

This section provides a use case diagram and a flowchart as additional visual representations for the İlk Kontakt platform.



Figure 9: Use Case Diagram of the İlk Kontakt Platform

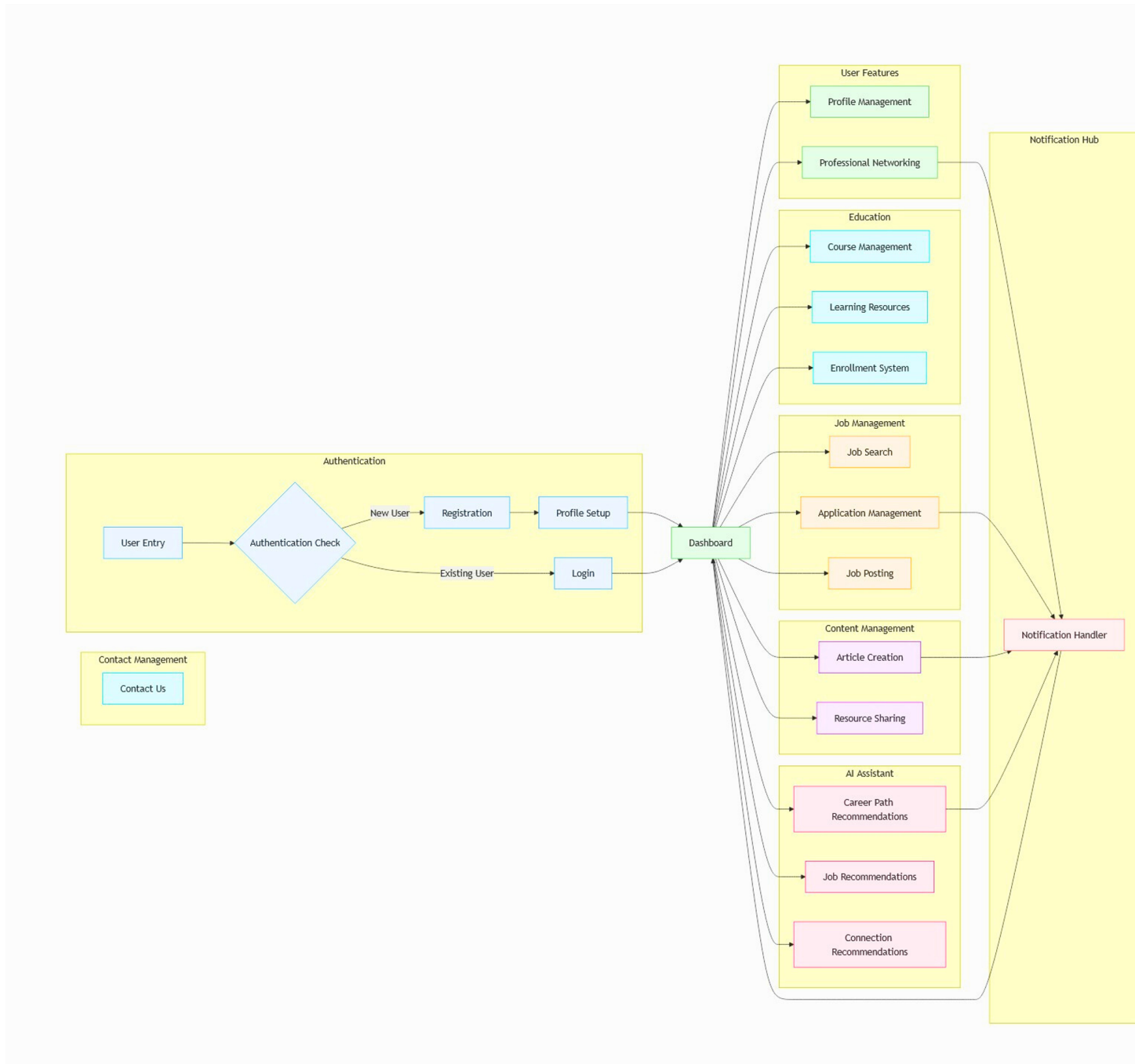


Figure 10: System Flowchart of the İlk Kontakt Platform

## 3 System Architecture

System Architecture section introduces components of the "İlk Kontakt", explores the defined functionalities, and how the data is managed.

### 3.1 System Components

The following logical component categories constitute "İlk Kontakt": Contact, Education, Home Page, Notifications, Page Layout, Positions, Profile, Social, User Management.

#### 3.1.1 Contact Component

Using the "ContactPage.js" file, this component displays a contact form where users can submit their inquiries and view static contact details such as the address, phone number, and email of the organization. The form allows users to contact the website administrator by entering their name, email, and message.

- **Data Consumed:** User inputs including name, email, and message.

#### 3.1.2 Education Component

"CourseCard.js" file represents a single course card displaying the course's details such as the title, description, instructor's name, instructor's title, duration, level, price, and an image related to the course.

- **Data Consumed:** A single course object containing fields: title, description, instructor, instructorTitle, duration, level, price, and imageUrl.

"EducationPage.js" displays a list of available courses by utilizing multiple "CourseCard"s, allowing users to browse through course offerings.

- **Data Consumed:** An array of course objects, each containing the same fields as consumed by "CourseCard.js".

### 3.1.3 Home Page Component

Home Page component serves as the main user dashboard. It features a welcome header, a feed of posts, and side panels that showcase a profile card, connection suggestions, and open job positions.

- **Data Consumed:**

- An array of posts with `post_owner`, `post_content`, `post_likes`, and `post_comments`.
- Basic user information for side panels.

With "Post.js" individual posts are rendered in the feed, including features to display likes and comments.

- **Data Consumed:** Post data including `post_owner`, `post_content`, `post_likes`, and `post_comments`

### 3.1.4 Notifications Component

Using the "NotificationCard.js" the component provides a display of a single notification and actions to mark it as read or trigger feedback responses.

- **Data Consumed:** A notification object with fields: `id`, `type`, `title`, `content`, and `read`.

Notifications Page component displays the list of notifications to the user. Users can mark notifications as read and interact with feedback options.

- **Data Consumed:** An array of notification objects with the same structure as used in "NotificationCard.js".

### 3.1.5 Page Layout Component

The site's footer is displayed using the "Footer.js" file. It includes static navigation links and general site information.

- **Data Consumed:** None (uses predefined static strings).

To provide the main navigation bar for the site, the file "NavigationBar.js" is used. It displays links to different pages, manages the session state, and uses a `navItems` array for the menu structure.

- **Data Consumed:**

- `navItems` array containing `path`, `label`, and `icon`.
- Login state from the session.

The "Layout.js" file serves as a wrapper for all child pages by embedding the "NavigationBar.js" file at the top and the "Footer.js" file at the bottom. It ensures a consistent structure across pages.

- **Data Consumed:** No direct data.

### 3.1.6 Positions Component

The Positions component renders individual job listings, displaying detailed information and providing an option to apply for the job using the "Job.js" file.

- **Data Consumed:** Job details including `title`, `company`, `description`, `location`, `experience`, `salary`, and `type`.

The "JobListPage.js" file is used to display a list of available job openings using multiple jobs.

- **Data Consumed:** An array of job objects, each with the same fields as consumed by "Job.js".

### 3.1.7 Profile Component

The file "Profile-img.js" is used to provide a URL for the user profile image. It can be used in various components that display the user profile picture.

- **Data Consumed:** `profileImage` URL.

With the "ProfilePage.js" file, the Profile component displays the user's profile page, showing information such as their name, profession, connections, posts, and follower count. It also supports editing profile details.

- **Data Consumed:**

- `profileData` object containing user profile details.
- An array of posts with fields: `id`, `title`, `content`, `date`, `likes`, and `comments`.

### 3.1.8 Social Component

The Social component uses the "SocialConnectionCard.js" file to display details about a single social connection, including their name, position, profile image, and a list of projects they are involved in.

- **Data Consumed:** A connection object containing `name`, `position`, `profile_image`, and an array of projects with `title` and `description`.

The "SocialPage.js" file provides a list of all social connections using multiple "SocialConnectionCard"s.

- **Data Consumed:** An array of connection objects matching the structure consumed by "SocialConnectionCard.js".

### 3.1.9 User Management Component

With "LoginPage.js" file user authentication is handled, allowing users to log in or register. Providing the forms for entering credentials and registration details.

- **Data Consumed:** User credentials and registration details including `username`, `password`, `name`, `email`, `role`, `organization`, and `password_confirmation`.



## 3.2 Database Architecture

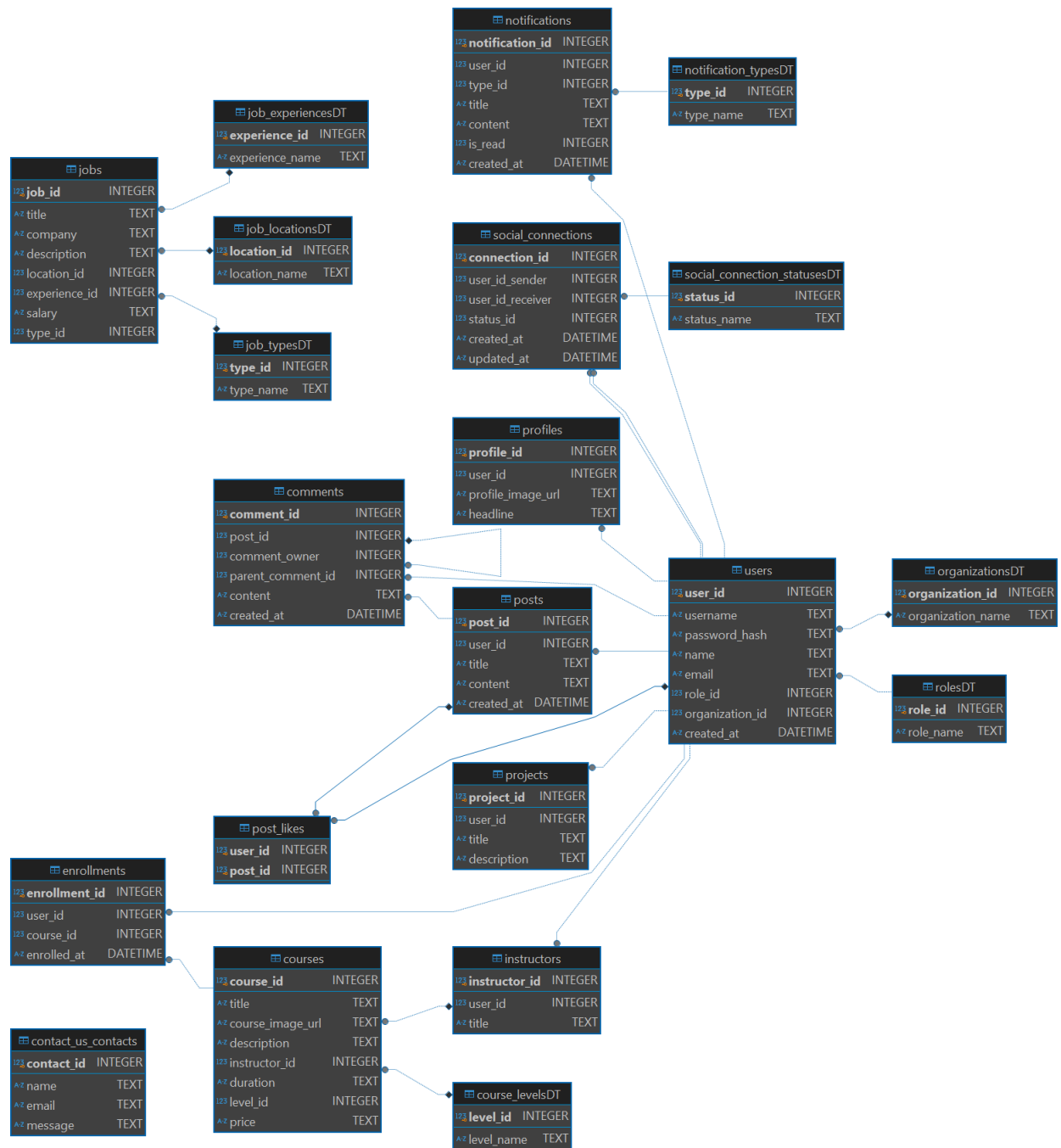


Figure 11 = Database Diagram for "İlk Kontakt"

The database architecture depicted above in Figure 11 has been designed to support all sys-

tem components while ensuring data integrity, scalability, normalization, and efficient relationship management. The database schema consists of core tables and definition tables.

### **3.2.1 User Management and Authentication**

The `users` table serves as the central entity, storing essential user authentication and identification data. It maintains relationships with tables `rolesDT` and `organizationsDT` through foreign key constraints, allowing role-based access control and organizational affiliations. The `profiles` table extends user data with additional information such as profile images and headlines, supporting the Profile component's display requirements.

### **3.2.2 Social Interaction Management**

To facilitate the social networking features displayed in the Social component, the `social_connections` table implements a self-referential relationship within the `users` table (via `user_id_sender` and `user_id_receiver`). Connection states are managed through the `social_connection_statusesDT` table, allowing for pending, accepted, or other relationship states.

### **3.2.3 Content Management**

The content creation and interaction features visible in the Home Page component are supported through several interconnected tables:

- `posts` table stores user-generated content with timestamps,
- `post_likes` is an association table that implements a many-to-many relationship between users and posts,
- `comments` table supports nested commenting through a self-referential `parent_comment_id` field,
- `projects` table maintains user-specific project information displayed in social connection cards.

### 3.2.4 Educational Content

The educational features shown in the Education component are managed through:

- `courses` table storing course details and metadata,
- `instructors` table linking qualified users to their teaching capabilities,
- `course_levelsDT` providing standardized course difficulty classifications,
- `enrollments` tracking student-course relationships.

### 3.2.5 Job Posting System

The Positions component is supported by the `jobs` table, with several definition tables (`job_typesDT`, `job_locationsDT`, `job_experiencesDT`) standardizing job posting attributes. This structure allows for consistent job listing displays and efficient filtering capabilities.

### 3.2.6 Notification System

The notification system visible in the Notifications component is implemented through the `notifications` table, with `notification_typesDT` standardizing notification categories. This design enables the system to handle various types of user notifications while maintaining consistency in notification display and management.

### 3.2.7 Contact Management

The `contact_us_contacts` table supports the Contact component's functionality, storing visitor inquiries with basic validation (email format checking) and required fields alignment with the contact form specifications.

### 3.2.8 Design Rationale

1. **Definition Tables:** The extensive use of definition tables promotes data consistency and reduces redundancy. For example, `rolesDT`, `job_typesDT`, and `course_levelsDT` ensure standardized categorization across the application.

2. **Relationship Management:** Many-to-many relationships are properly normalized (e.g., `post_likes`, `enrollments`), preventing data anomalies while maintaining query efficiency.
3. **Temporal Data:** Critical tables include timestamp fields (`created_at`, `updated_at`) to support feature requirements such as post sorting and notification management.
4. **References:** Foreign key constraints are implemented throughout the schema to maintain data consistency and support the relationship between components displayed in the interface.
5. **Scalability Considerations:** The schema design separates concerns effectively (e.g., user authentication vs. profile data), allowing independent scaling of different system aspects.

## 4 System Requirements

### 4.1 User Management

#### 4.1.1 Registration and Authentication

- **REQ-1.1.1:** The system shall provide user registration functionality requiring full name, email address, and password.
- **REQ-1.1.2:** The system shall support profile picture upload during registration.
- **REQ-1.1.3:** The system shall implement email verification for new registrations.
- **REQ-1.1.4:** The system shall provide optional two-factor authentication (2FA).
- **REQ-1.1.5:** The system shall manage active user sessions post-authentication.

#### 4.1.2 Profiles

- **REQ-1.2.1:** The system shall enable users to create and manage professional profiles with the following components:
  - **REQ-1.2.1.1:** Personal Information: full name, profile photo, contact information, and bio
  - **REQ-1.2.1.2:** Educational Background: multiple institutions, degrees, fields of study, graduation dates, and coursework
  - **REQ-1.2.1.3:** Professional Experience: previous jobs, internships, roles, responsibilities, and timeframes
  - **REQ-1.2.1.4:** Skills: add, update, and rate skills on a 1-5 scale
  - **REQ-1.2.1.5:** Projects and Achievements: project details, links, descriptions with like/comment functionality
  - **REQ-1.2.1.6:** Career Goals and Milestones: career aspirations and progress tracking

- **REQ-1.2.2:** The system shall provide profile customization options for page layout, colors, and images.
- **REQ-1.2.3:** The system shall implement advanced filtering and sorting capabilities for profile searches.

### **4.1.3 Account Types**

- **REQ-1.3.1:** The system shall support Standard User Accounts with profile building, networking, and job search capabilities.
- **REQ-1.3.2:** The system shall support Employer Accounts with job posting, application management, and candidate communication features.
- **REQ-1.3.3:** The system shall support Administrator Accounts with platform monitoring, content management, and security compliance capabilities.

## **4.2 Professional Networking**

### **4.2.1 Connection Management**

- **REQ-2.1.1:** The system shall enable users to send and manage connection requests.
- **REQ-2.1.2:** The system shall allow users to categorize connections (e.g., Colleague, Mentor).
- **REQ-2.1.3:** The system shall provide AI-powered connection suggestions based on user profiles.
- **REQ-2.1.4:** The system shall maintain interaction history for each connection.
- **REQ-2.1.5:** The system shall provide connection filtering and search functionality.
- **REQ-2.1.6:** The system shall display network growth analytics.
- **REQ-2.1.7:** The system shall support customizable connection requests.

- **REQ-2.1.8:** The system shall enable connection removal with optional notifications.
- **REQ-2.1.9:** The system shall provide custom sorting of connections.
- **REQ-2.1.10:** The system shall generate dynamic connection recommendations.

#### **4.2.2 Communication Management**

- **REQ-2.2.1:** The system shall provide private messaging between connected users only.
- **REQ-2.2.2:** The system shall support message filtering and sorting.
- **REQ-2.2.3:** The system shall implement read receipts and typing indicators.
- **REQ-2.2.4:** The system shall support multimedia messaging with file restrictions.
- **REQ-2.2.5:** The system shall provide searchable message history.
- **REQ-2.2.6:** The system shall allow message editing and deletion.
- **REQ-2.2.7:** The system shall maintain an intuitive messaging interface.
- **REQ-2.2.8:** The system shall support customizable notification preferences.

### **4.3 Recruitment and Job Search**

#### **4.3.1 Job Postings**

- **REQ-3.1.1:** The system shall enable employers to create, edit, and manage job listings.
- **REQ-3.1.2:** The system shall support custom application questions.
- **REQ-3.1.3:** The system shall display comprehensive employer profiles with job posting history.

### **4.3.2 Application Management**

- **REQ-3.2.1:** The system shall support direct job applications through the platform.
- **REQ-3.2.2:** The system shall provide application status tracking.
- **REQ-3.2.3:** The system shall enable direct communication between applicants and employers.
- **REQ-3.2.4:** The system shall support multiple application options and reapplication functionality.
- **REQ-3.2.5:** The system shall provide job posting analytics for employers.

### **4.3.3 Candidate Matching**

- **REQ-3.3.1:** The system shall implement AI-driven job recommendations.
- **REQ-3.3.2:** The system shall provide detailed job search filters.
- **REQ-3.3.3:** The system shall offer employer tools for candidate matching.

## **4.4 Content Sharing**

### **4.4.1 Content Management**

- **REQ-4.1.1:** The system shall provide rich text editing capabilities.
- **REQ-4.1.2:** The system shall implement draft saving functionality.
- **REQ-4.1.3:** The system shall support content categorization and tagging.
- **REQ-4.1.4:** The system shall provide privacy and visibility controls.
- **REQ-4.1.5:** The system shall display interaction metrics and analytics.
- **REQ-4.1.6:** The system shall implement content moderation features.



#### **4.4.2 Article / Resource Sharing**

- **REQ-4.2.1:** The system shall support multimedia article creation and publishing.
- **REQ-4.2.2:** The system shall enable secure resource uploading and sharing.
- **REQ-4.2.3:** The system shall provide collaborative authoring features.
- **REQ-4.2.4:** The system shall support targeted content distribution.
- **REQ-4.2.5:** The system shall implement community interaction features.
- **REQ-4.2.6:** The system shall provide content discovery mechanisms.

### **4.5 Smart Career Assistant**

#### **4.5.1 Career Path Recommendation**

- **REQ-5.1.1:** The system shall provide NLP-powered career guidance queries.
- **REQ-5.1.2:** The system shall generate personalized career pathways.
- **REQ-5.1.3:** The system shall perform skill gap analysis.
- **REQ-5.1.4:** The system shall support goal setting and progress tracking.

#### **4.5.2 Job Recommendation**

- **REQ-5.2.1:** The system shall provide AI-driven job suggestions.
- **REQ-5.2.2:** The system shall display market trends and insights.
- **REQ-5.2.3:** The system shall support integrated job applications.
- **REQ-5.2.4:** The system shall provide real-time job updates.

### **4.5.3 Connection Recommendation**

- **REQ-5.3.1:** The system shall generate AI-based connection recommendations.
- **REQ-5.3.2:** The system shall prioritize recommendations based on commonalities.
- **REQ-5.3.3:** The system shall provide contextual insights for recommendations.
- **REQ-5.3.4:** The system shall implement dynamic network building features.