Chapter 1: Introduction

1.1 Introduction

Sayogi is an innovative web-based and mobile application that provides a user-friendly platform for both service seekers and service providers. It enables service seekers to create detailed profiles that highlight their skills, experience, and expertise. Simultaneously, service providers can create service requests specifying their specific requirements.

Sayogi acts as a bridge between service seekers and providers, facilitating seamless connections and collaborations. By leveraging advanced search and filtering capabilities, users can easily find the right service request that matches their needs.

1.2 Problem statement

In today's service-oriented marketplace, there is a lack of a user-friendly and efficient platform that connects service seekers and service providers. Existing methods for finding service providers or service requests are often fragmented, time-consuming, and unreliable. This leads to difficulties for service seekers in identifying the right providers for their needs and for service providers in reaching their target audience. Consequently, there is a need for a platform like Sayogi that can address these challenges and provide a seamless experience for both service seekers and service providers.

Some of the major problems are:

- Difficulty in finding and Attracting Service Seekers.
- Inefficient Communication Channels.

1.3 Objectives

To create a user-friendly platform that simplifies service discovery, builds trust, and streamlines service request management for a seamless experience between service seekers and providers.

1.4 Development Methodology

My proposed project will follow the Waterfall Model as its methodology for software development. This model presents a linear sequence of development phases, each dependent on the completion of the previous phase. Since I have a well-defined vision for the project, the Waterfall Model aligns with my goals and is the appropriate approach for its development

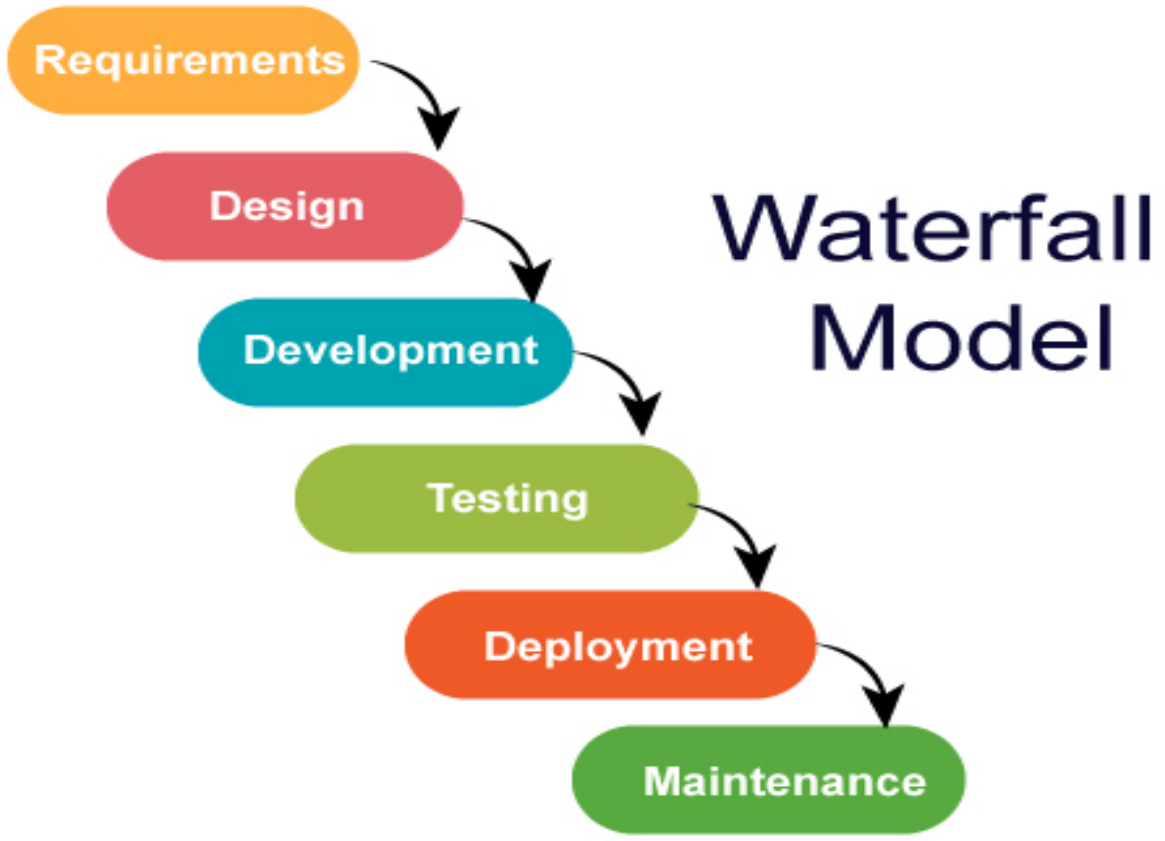


Fig 1. Waterfall Model

Chapter 2: System Analysis and Design

2.1 Requirement Analysis

i. Functional Requirements

- **Admin**
    - **Login**
    - **View History**
    - **Manage User**
- **User**
    - **Login**
    - **Service Request**
    - **Create Service Seeker account**
    - **Search Service Seeker**
    - **Add comment**
    - **Request to Hire**
    - **Get Notification**
    - **View History**
- **Visitors**
    - **View Service Card**
    - **Manage user**

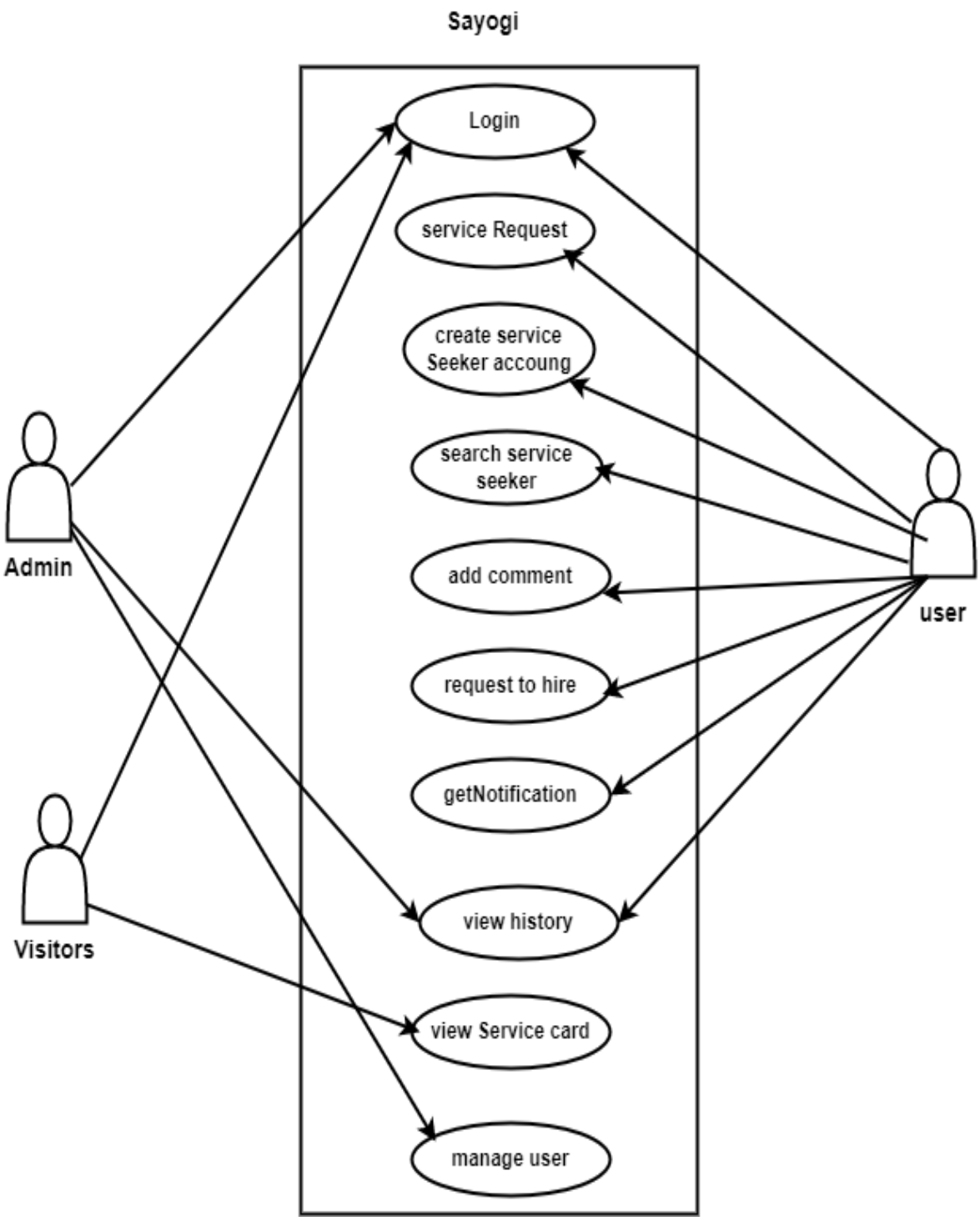
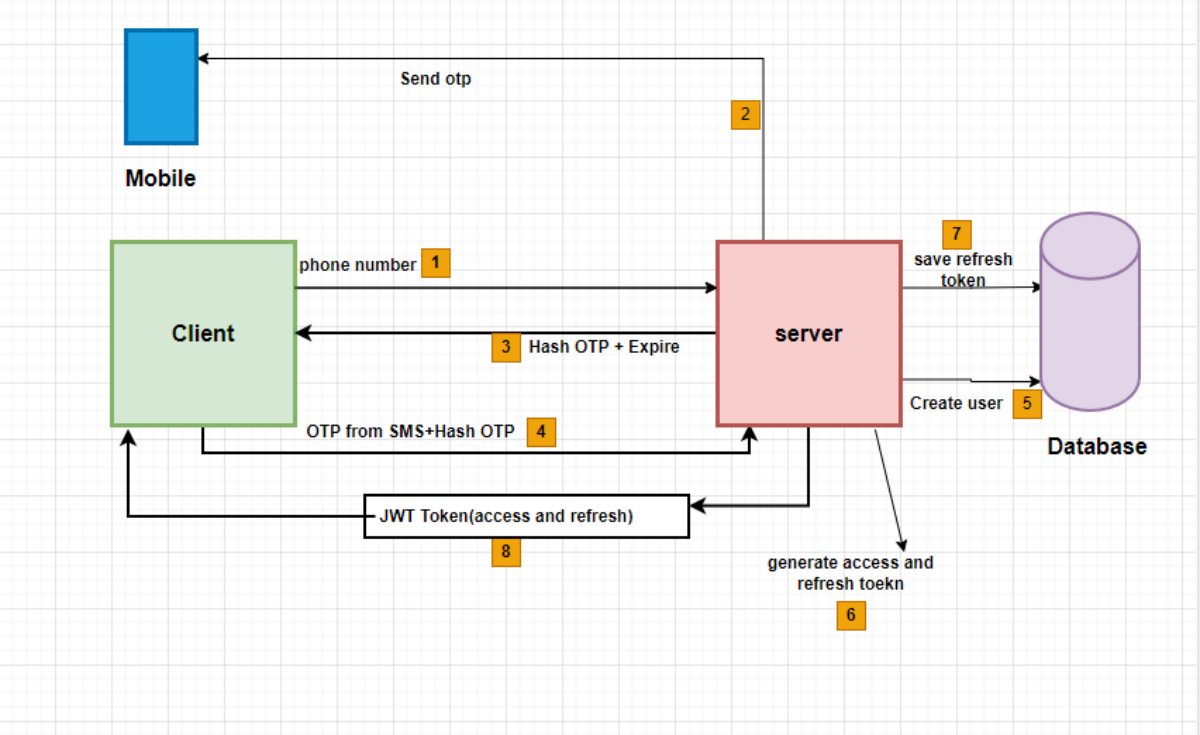


Figure 2: Use-Case diagram

ii. Non-functional Requirements

1. Security

a. Implement proper authentication and authorization mechanisms to control user access.



2. Performance

a. Sagogi should provide a responsive and performant user experience.

b. Optimize system performance to handle concurrent user requests and minimize response times.

3. Scalability

a. Sagogi should be designed to handle increasing user demands and accommodate future growth.

4. **Compatibility**
    a. Ensure Sagogi is compatible with various platforms, browsers, and devices
5. **Maintainability**
    a. Write clean and well-documented code to enhance code maintainability.

2.2 Feasibility Study

1. Technical feasibility

- The Technical Feasibility of the sayogi Nepal system has been evaluated, taking into account the necessary resources such as hardware, software, and human resources. It has been determined that all required resources are already available

2. Economic Feasibility

- The sayogi Nepal System utilizes open-source technologies, meaning there is no need for additional software or hardware. As a result, the only recurring cost associated with the system is the internet connection

3. Operational Feasibility

- The operational feasibility of the sayogi Nepal System was assessed, and we identified several challenges and vulnerabilities in the existing system. These issues were addressed during the development of the new system, resulting in a more robust and manageable platform for users. Detailed analysis and planning were conducted to ensure that the sayogi Nepal System is operationally feasible and meets the needs and expectations of its users.

2.3 Data Modeling (ER-Diagram)

This ER (Entity Relationship) Diagram represents the model of this project (sayogi). The entity-relationship diagram of the project shows all the visual instruments of the database table and the relations between admin, users, etc. It uses structured data to define the relationship between structured data groups of sayogi functionalities.

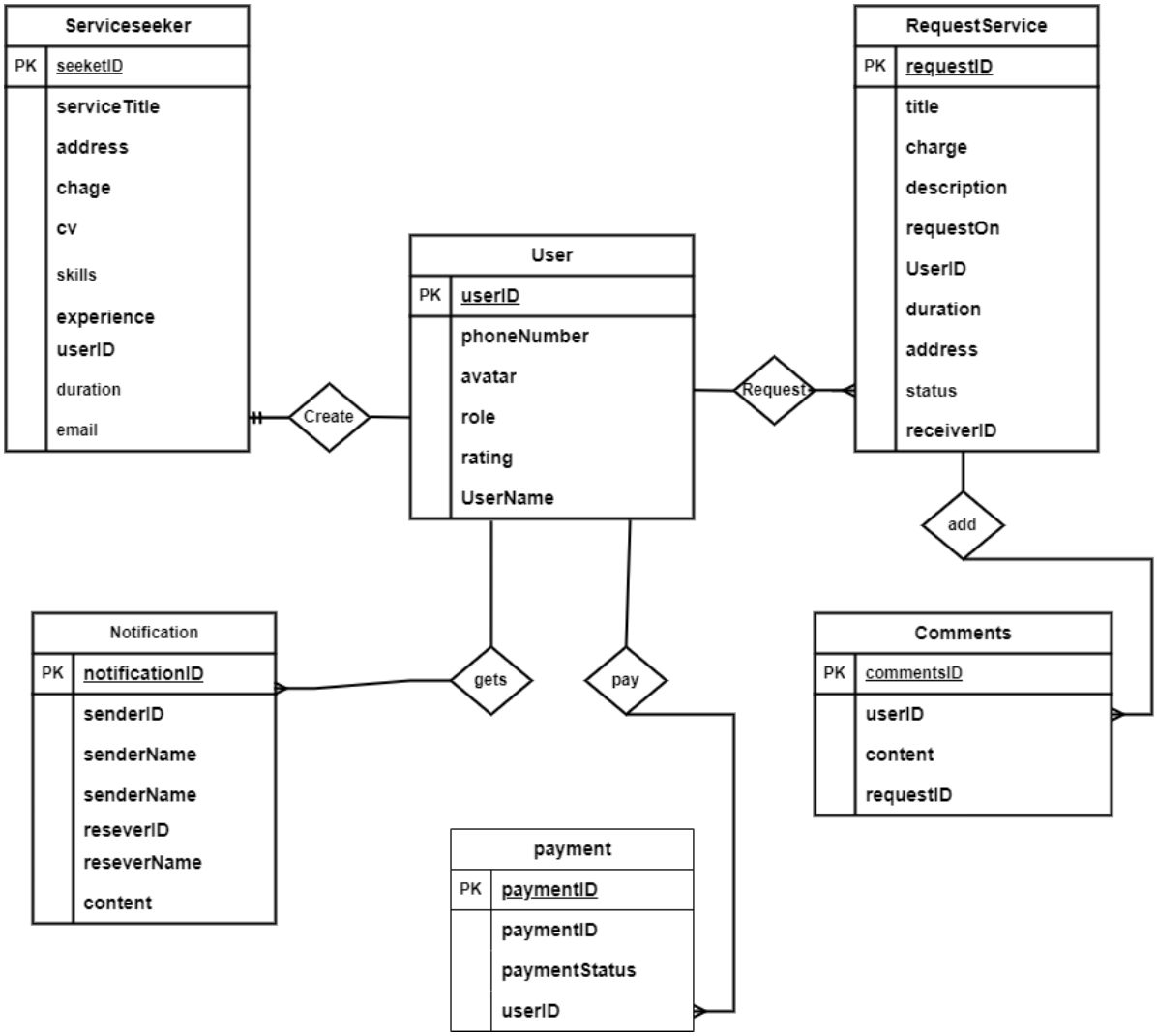


Figure: Entity Relationship Diagram(sayogi)

2.4 Process Modeling (DFD)

Data flow diagram is graphical representation of flow of data in an information system. It uses defined symbols like rectangles, circles and arrows, plus short text labels, to show data inputs, outputs, storage points and the routes between each destination.

Context diagram

A context diagram, also known as a level 0 diagram, is a visual representation of a system or process that shows the interactions between the system and external entities. It provides an overview of the system's boundaries, the entities it interacts with, and the flow of data between them.

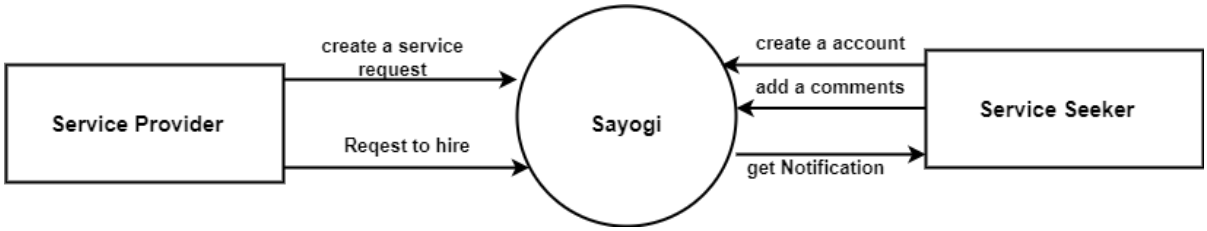


Figure: Context diagram

1-level DFD

DFD Level 1 provides a more detailed breakout of pieces of the Context Level Diagram. This DFD describes main functions carried out by the system, as we break down the high-level process of the Context Diagram into its sub-processes.

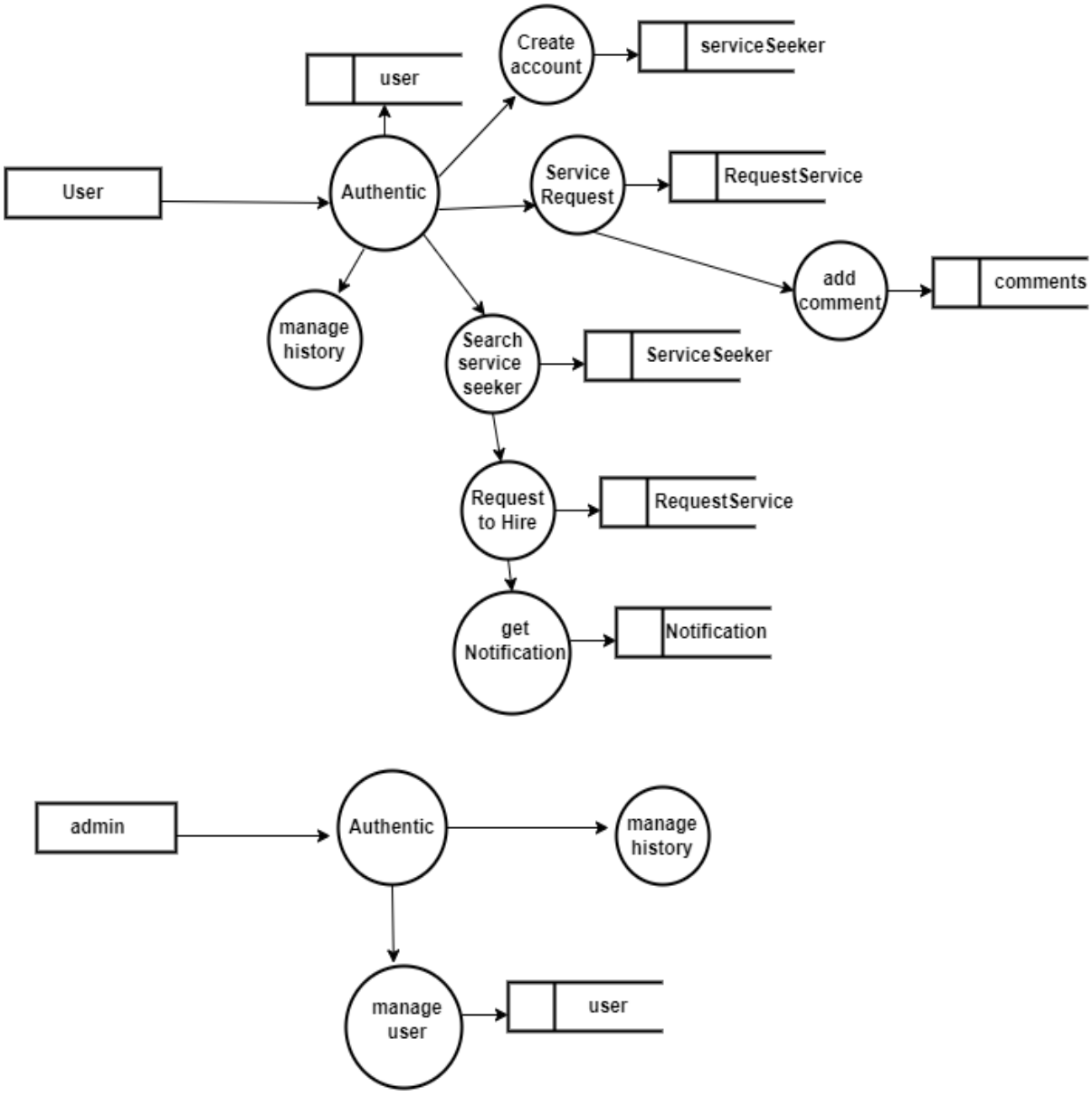


Figure : 1 level DFD

2.5 Database Schema

A database schema is the skeleton structure that represents the logical view of the entire database. It defines how the data is organized in a system.

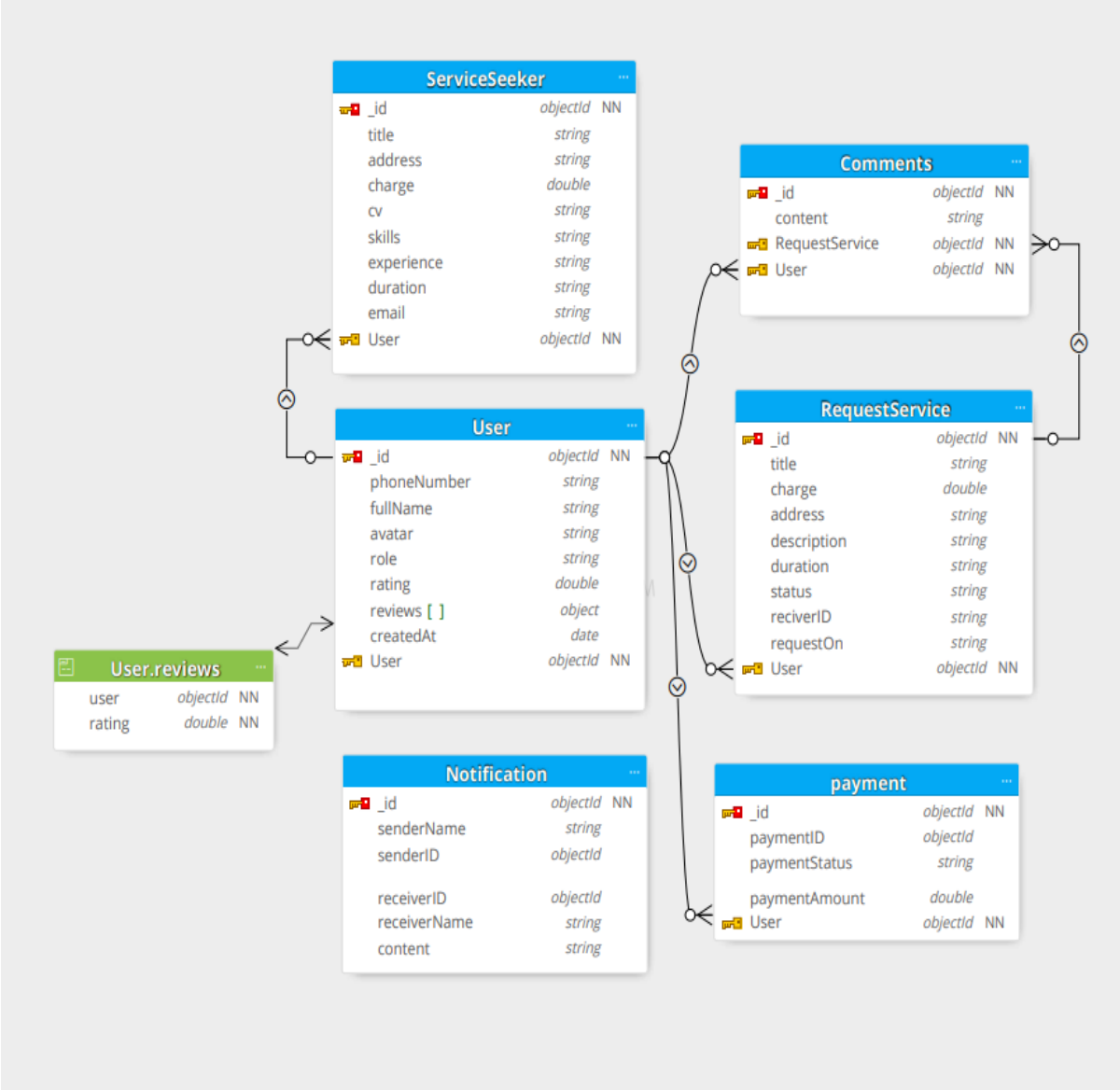


Figure : Database Schema Design of Sayogi