

# CHAT BOT

GROUP 2

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# Problem Statement

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This project aims to develop an AI chatbot web application. The chatbot will serve both personal users and companies.



# Problem Statement

## Target User



### PERSONAL USER

Using an AI assistant for daily tasks, productivity, and communication.

### ENTERPRISE USER

Businesses aim to enhance their operations by creating and adding new knowledge to their chatbot, integrating it effectively within the company,

# Project Management

## Scrum Overview

### Definition

- Agile framework for managing complex projects
- Divide project into sprints

### Core artifacts

- Product Backlog: The list of tasks and requirements.
- Sprint Backlog: Subset of tasks selected for a sprint.

### Core activities

- Sprint planning
- Sprint review
- Weekly Report

# Software Requirement

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1. Functional Requirement
2. Non-functional Requirement
3. Use-case



# 1 Functional Requirement

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- AUTHENTICATION AND AUTHORIZATION
- AI CHAT
- AI BOT CREATION AND MANAGEMENT
- KNOWLEDGE DATA MANAGEMENT



# 1 Functional Requirement

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- PROMPT MANAGEMENT
- ACCOUNT UPGRADES AND MONETIZATION
- IMAGE-BASED Q&A
- EMAIL COMPOSITION WITH AI



# 2 Nonfunctional Requirement

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## 01. Register an account

- Require password strength with the following criteria: minimum length of 8 characters, including uppercase letters, lowercase letters, numbers and special characters.
- Processing time for registration and account activation via email is no more than 5 seconds.

## 02. Login

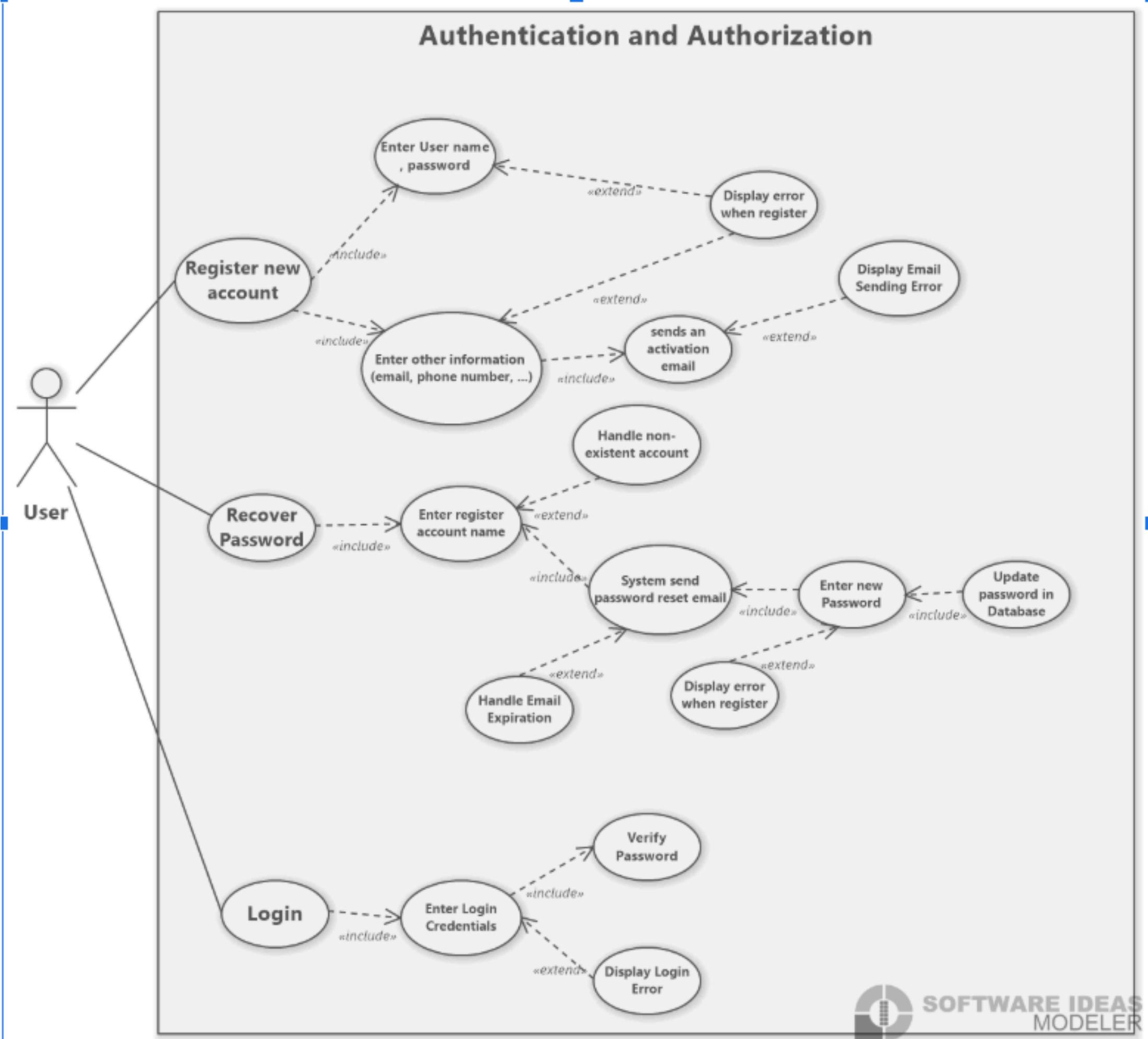
- Login processing time should not exceed 5 seconds.
- The system can handle ~1000 users logging in simultaneously.
- Specific error message when entering incorrect login information.

## 03. Chat With AI Agent

Response Time: The system must respond to user messages within 5 second



# 3 Use case



# **Analysis and design**

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## **1. Implement Features**

- Authentication
- Chat with AI Agent

## **2. Language and technologies**

- HTML, CSS, Javascript
- Bootstrap 5, Express , Sequelize

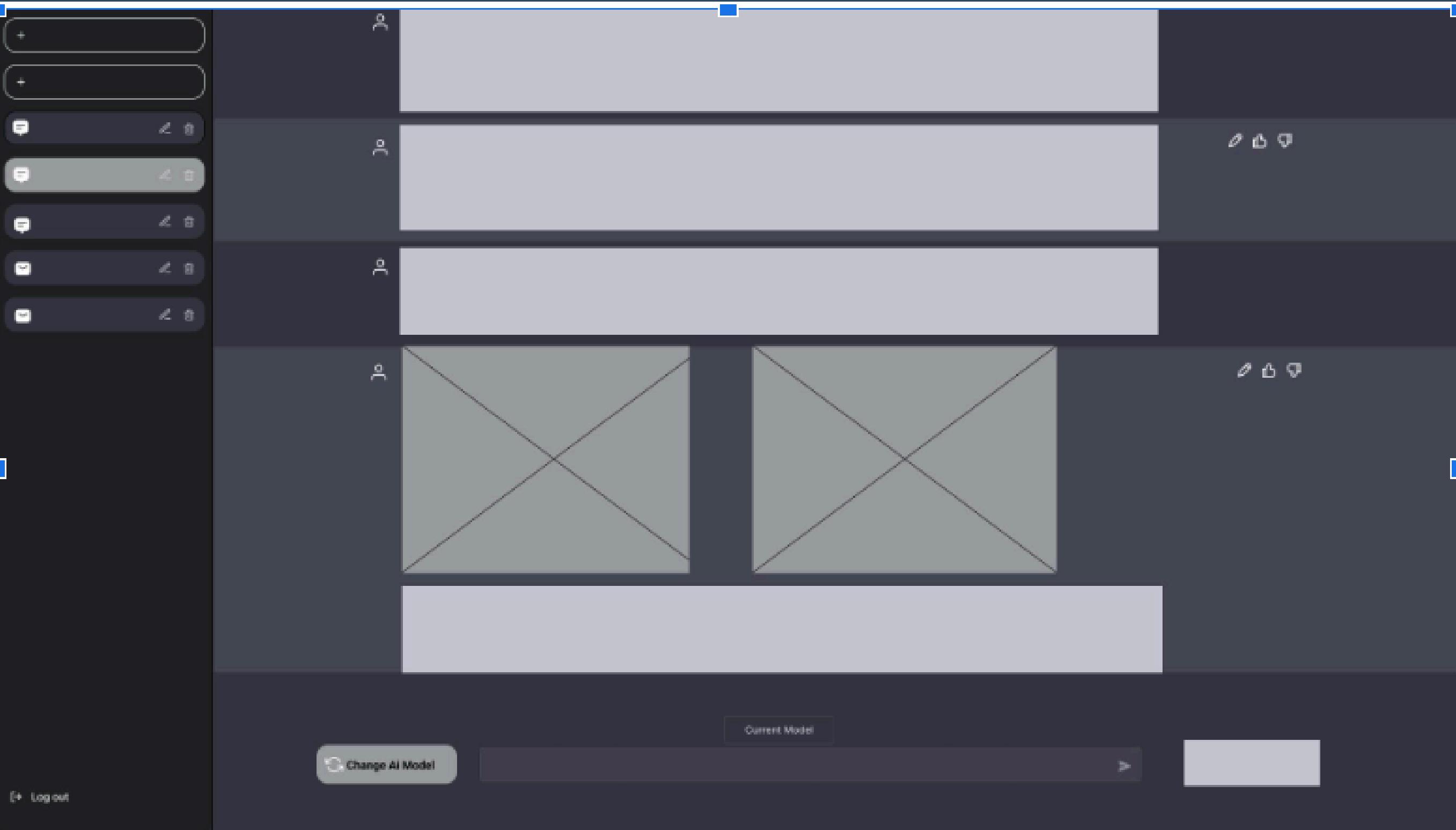
## **3. Architecture**

- Class
- MVC model

# Analysis and Design

## 4. UI Design

- **Tool: Figma**
- **Style:**
  - Low-Fi UI Design



# Analysis and Design

## 5. Folder structure

```
📦 HCMUS-ISE-ChatBot
  └── src
    ├── controllers
    ├── database
    │   └── config
    │       └── config.json
    ├── migrations
    ├── models
    ├── seeders
    └── db.js

  └── node_modules

  └── public
    ├── css
    ├── html
    ├── images
    └── js

  └── routes

  └── views
    ├── layouts
    ├── partials
    └── .hbs

  └── .env

  └── .gitignore

  └── app.js

  └── package.json

└── README.md
```

# Software Testing

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## 01. Test Environment

- Processor: Intel Core i3 (or AMD Ryzen 3 equivalent) – even an older dual-core CPU should suffice for basic browsing tasks.
- RAM: 4GB (minimum), but 8GB is recommended for smoother multitasking.
- Graphics: Integrated Graphics (Intel UHD Graphics or AMD Radeon Vega integrated GPUs are sufficient).
- Operating System: Compatible with Windows 10/11, Linux, or macOS, depending on preference.
- Storage: 128GB SSD (for faster system boot and browser loading times).

## 02. Test Function

- Test 5 function
- Account register
  - Chat with ai bot
  - Forget password,
  - Login
  - Upgrade account

## 03. Result

- Test plan,test cases

# DEMO

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VIDEO

**THANK YOU**

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