Functional Requirements for EnjOffer English Learning Web Application

EnjOffer is a platform designed to aid users in learning English for IT purposes. It includes registration and user login features, a personal dashboard, a word trainer section, and a technical book library.

User Types

The IT English Learning web application now includes four types of users: Users, Super Admin, Admin, and Guest. Everyone is able to sign up or log in.

Super Admin is a user who has the highest level of access to the system. They can create and manage admin accounts, and perform all actions that an admin can perform.

Admin is a user with elevated permissions who can manage the default word database by adding new words or deleting existing ones.

The user is an actor who has access to all sections of the web application except the admin's panelin the personal account.

Guest is a limited user who can only browse the technical book library, and is redirected to the login form when attempting to perform other actions.

Registration and Login

The web application must provide a registration form for users to create an account.

Users, admins, and super admin must be able to log in to the system using their usernames and passwords.

If a user, admin, or super admin forgets their password, they should reset it using their email.

Guests are required to see the library only. On other sections of the web application, they are able to see the registration form.

Personal Dashboard

Users should have a personal dashboard that displays their progress in learning English for IT purposes. Admins should have the same and have the possibility to delete or add default words. Super admin has possibilities of admins, and additionally, they can assign admins and demote admins to users.

The dashboard should include a graph showing the user's, admin's, and super admin's daily progress regarding the number of correct and incorrect answers given during word trainer sessions.

The dashboard should also give the user access to a list of text-based advice on preparing for IT job interviews.

All actors except guests are able to log out by clicking the relevant button in their personal accounts.

Word Trainer

The word trainer section should allow users to input English words based on their Ukrainian translations.

The system should include a button for users, admins, and super admin to reveal a part of the correct answer if they are unable to provide it.

The system should allow users, admins, and super admin to add their own words to the database for learning if these words are not initial words.

Technical Book Library

The technical book library should provide users, admins, and super admin access to various English-language IT-related books.

The system should allow users, admins, and super admin to mark books as read and track their reading progress.

The system should allow users, admins, and super admin to add their own words to the database for learning if these words are not initial words.

Technologies Used

ASP.NET Core MVC, Entity Framework Core, HTML, CSS, JavaScript, PostgreSQL.

Account Management System

Role	Use case	Description
User Guest Admin Super-admin	Sign Up	The user can create a personal account
	Login	Log in to your personal account
	Reset password	If the user has forgotten the password, he can recover it using an email

Personal Account

Role	Use case	Description
User Admin Super-admin	View personal account	In your personal account, you can view statistics and get advice on studying
	Logout	Exiting the personal account and moving to the login page
Admin Super-admin	Add new words	Ability to add new words to basic dictionary (by default)
Admin Super-admin	Words deleting	Ability to delete some words in a basic dictionary

Word Trainer

Role	Use case	Description
User Admin Super-admin	Add words	Ability to add words to the database for efficient study
	Enter a word	The possibility of entering a word to check the acquired knowledge
	Use a hint	The ability to use a hint spoils the statistics for the user, but motivates learning more

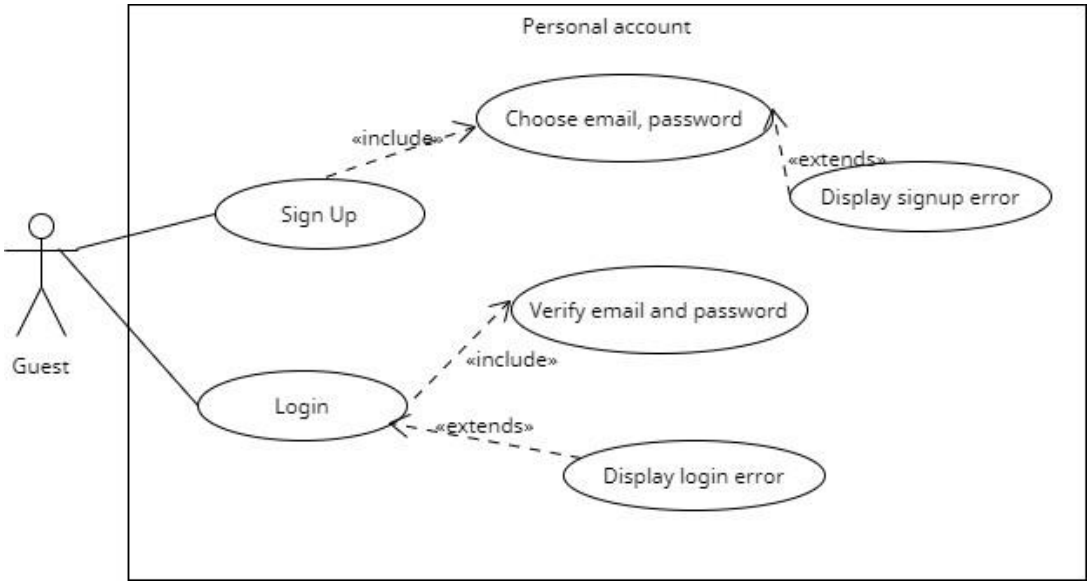
Technical book library

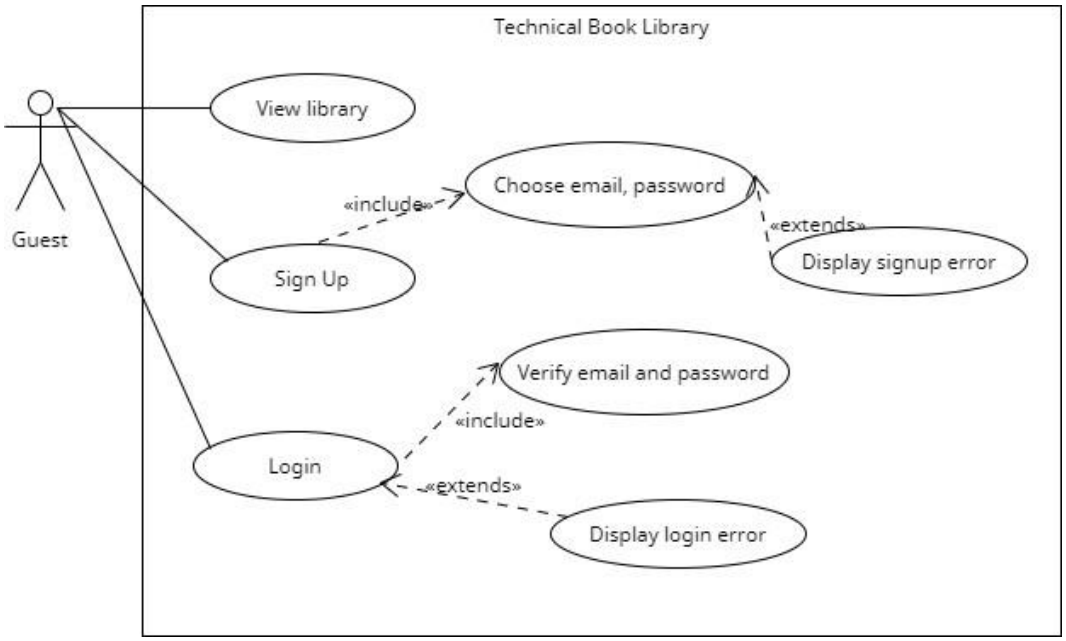
Role	Use case	Description
User Guest Admin Super-admin	View library	Browse available books
User Admin Super-admin	Choose a book to read	Ability to choose a book to read
User Admin Super-admin	Mark the book as read	The ability to mark a book as read for better orientation in the library

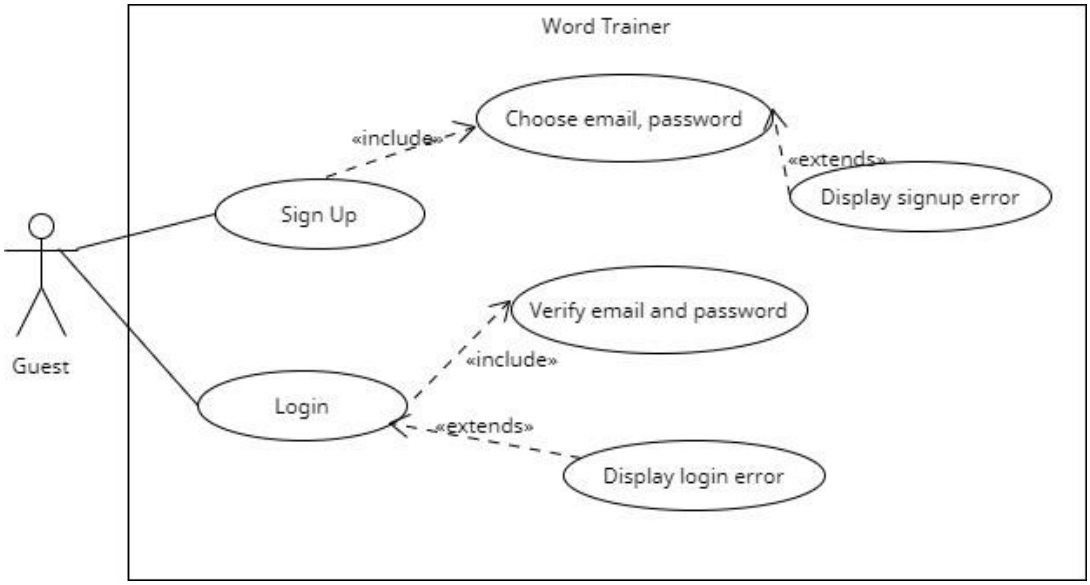
Admin panel

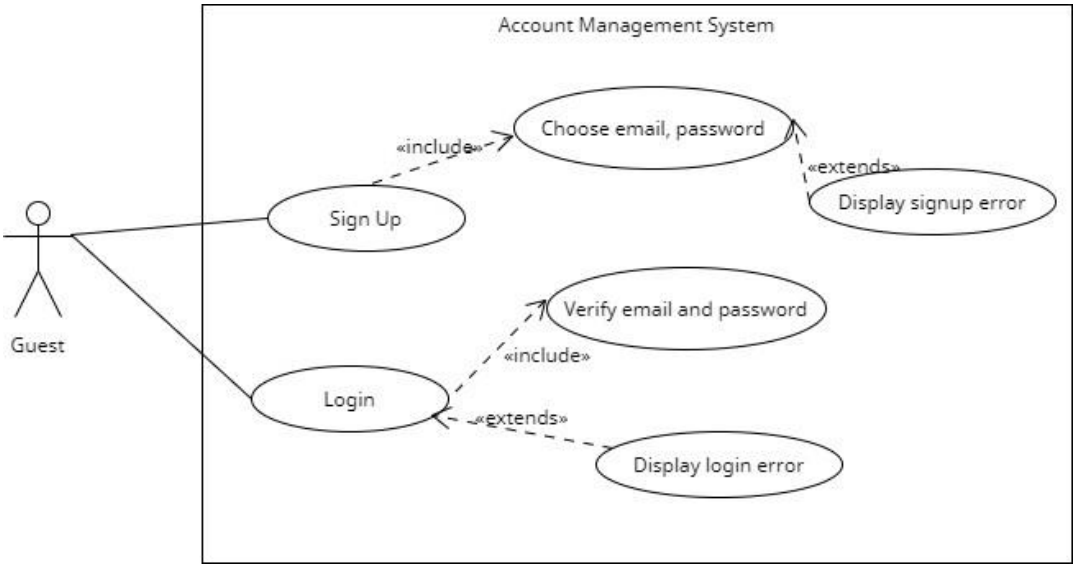
Role	Use case	Description
Super-admin	View the admin's and user's account lists	Ability to see the list of admins' and users' accounts
	Create the admin from a user	Add admin capabilities for a user
	Create a user from the admin	Remove admin capabilities from a user
Admin Super-admin	Add default words	Add default words into the database for other users can access the words
	Remove default words	Remove default words from the database for other users cannot access the words

Use case diagrams:






Word Trainer
Choose email, password
«include»
«extends»
Display signup error
Sign Up
Guest
Verify email and password
«include»
Login
«extends»
Display login error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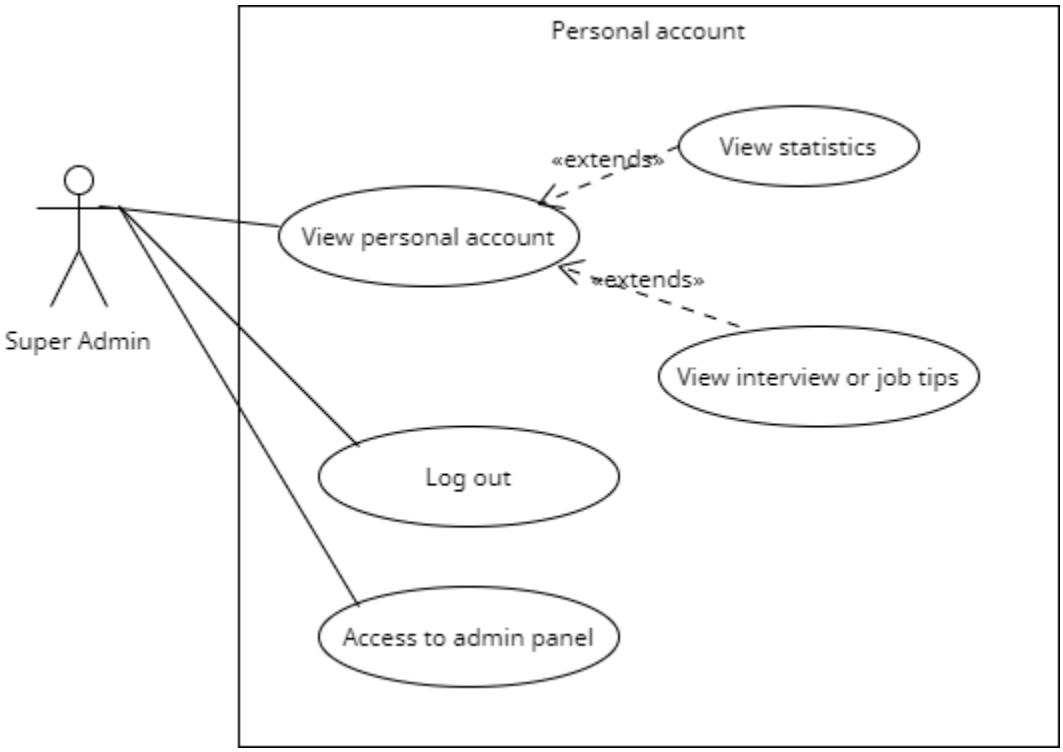
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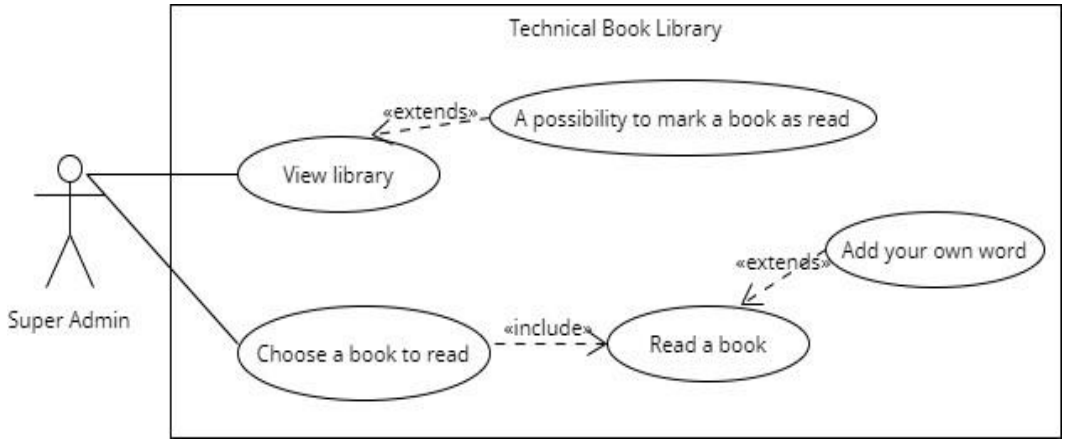
Super Admin
View interview or job tips
Log out
Access to admin panel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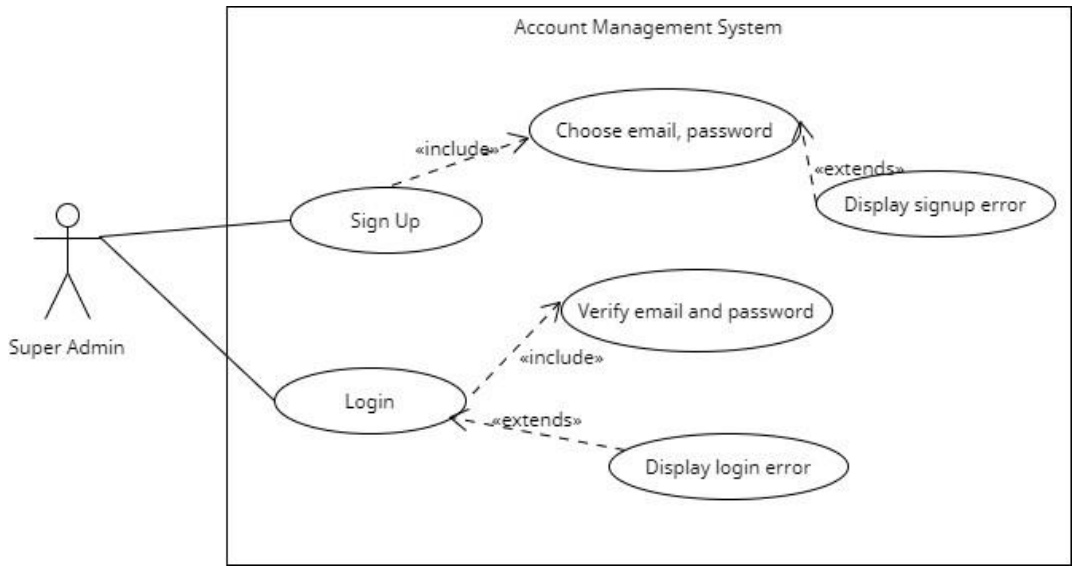
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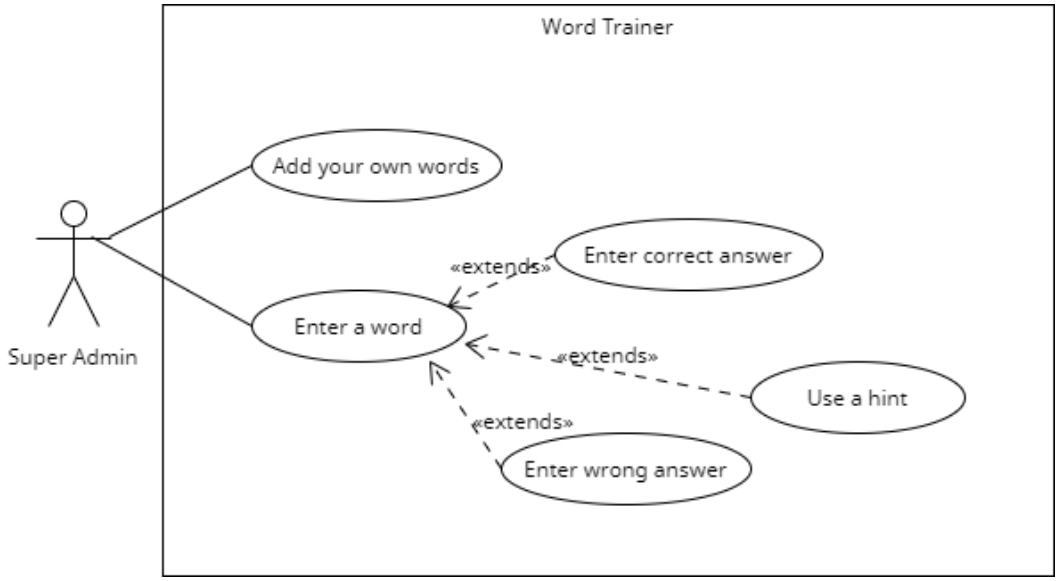
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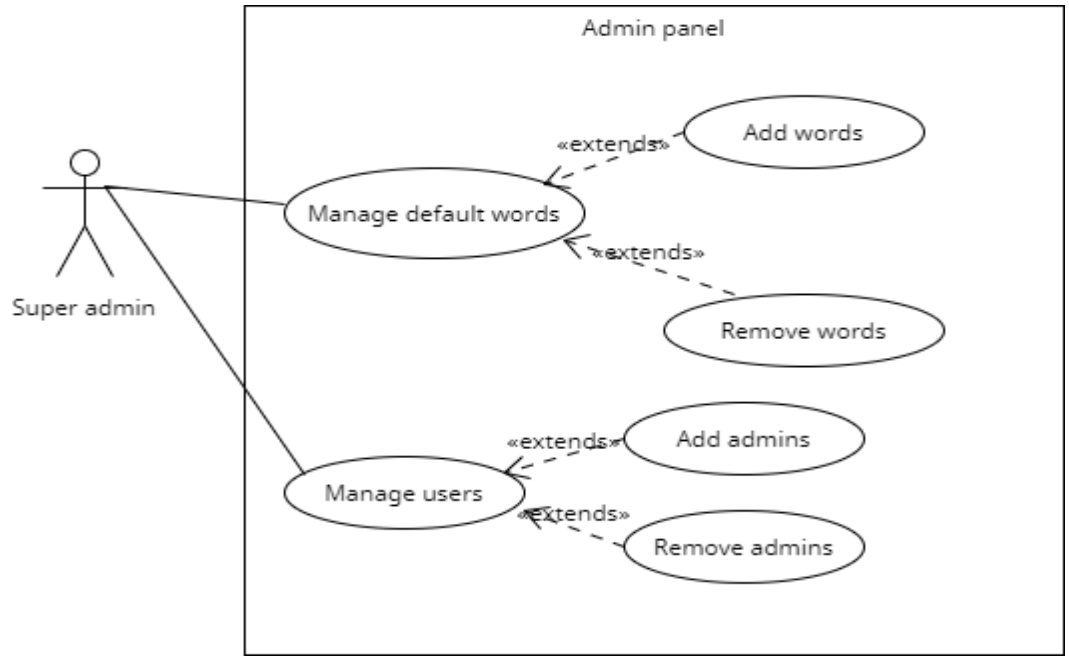
Admin panel
Add words
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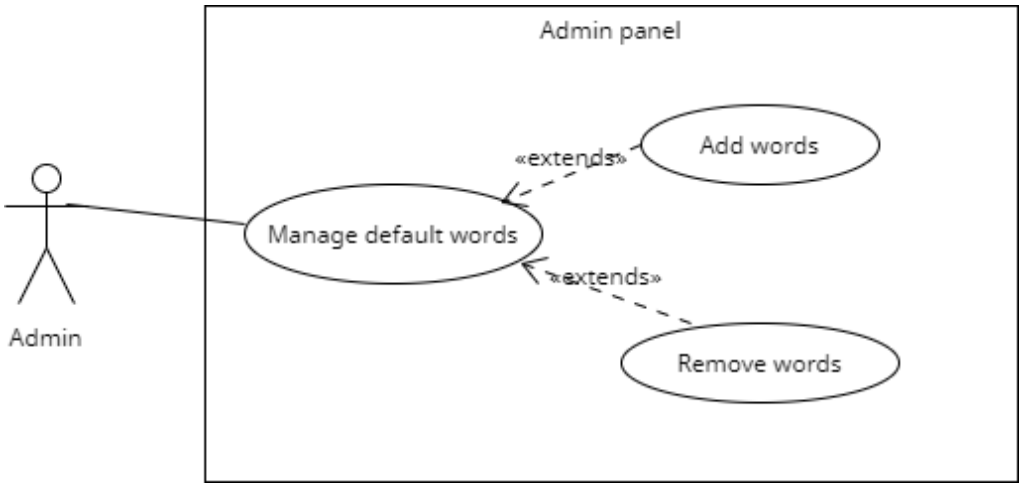
Manage default words
«extends»
Remove words
Super admin
Add admins
«extends»
Manage users
«extends»
Remove admins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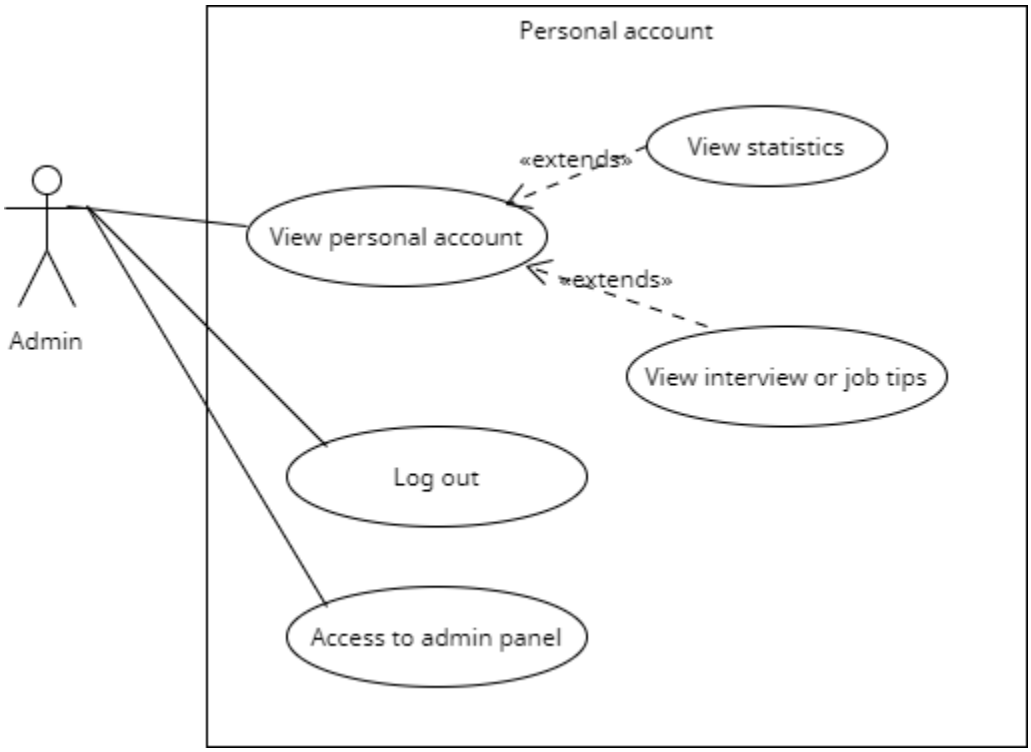
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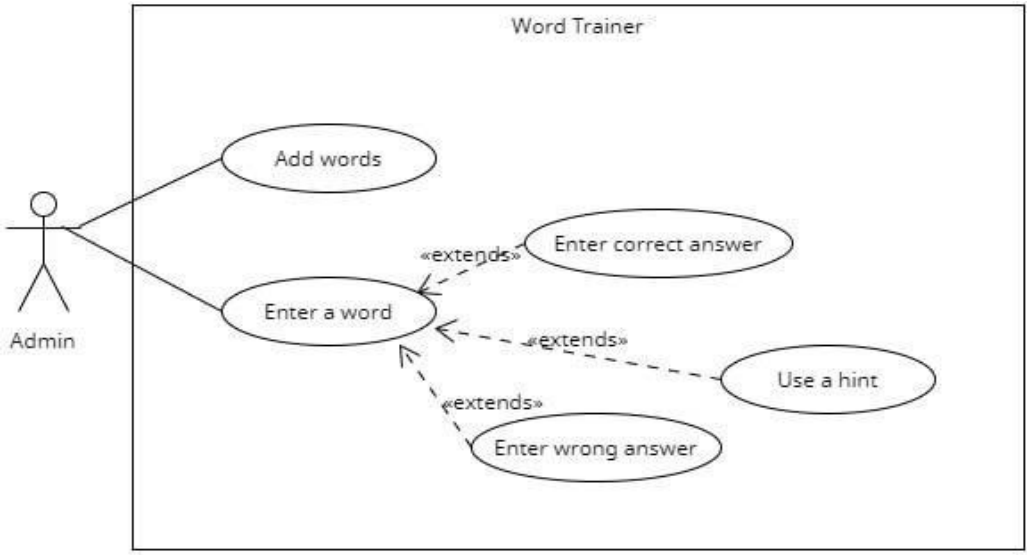
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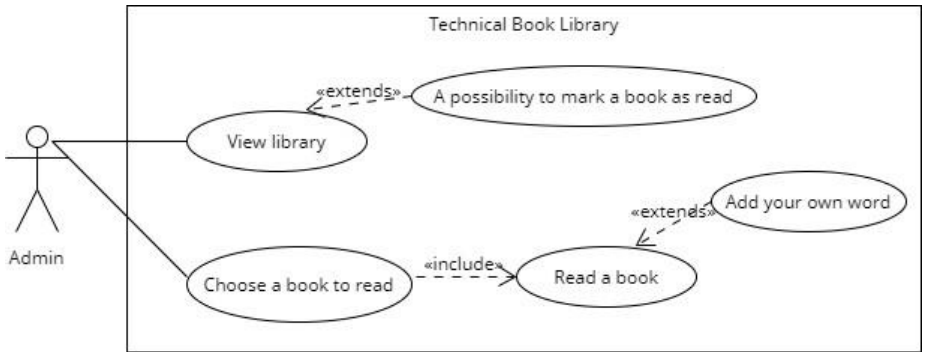
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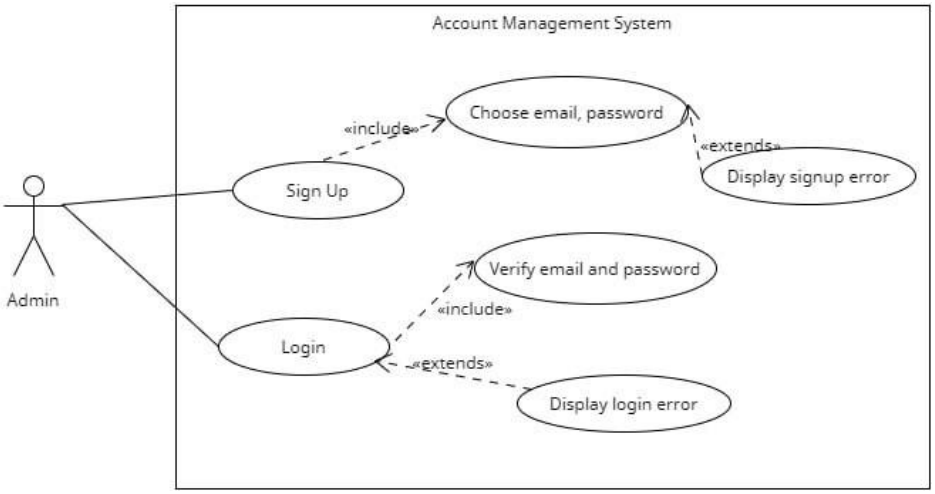
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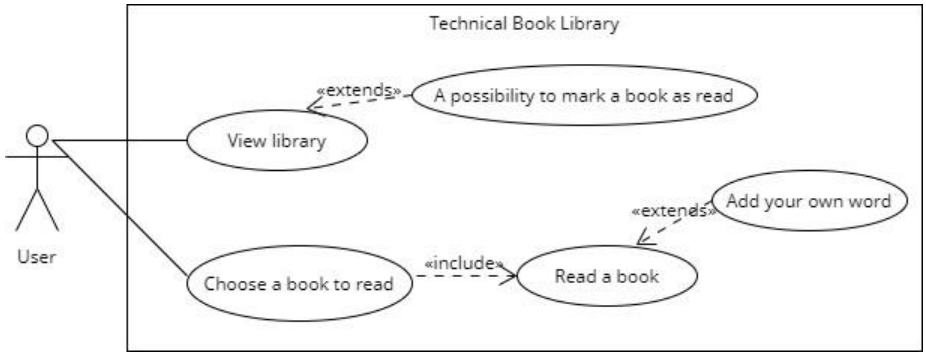
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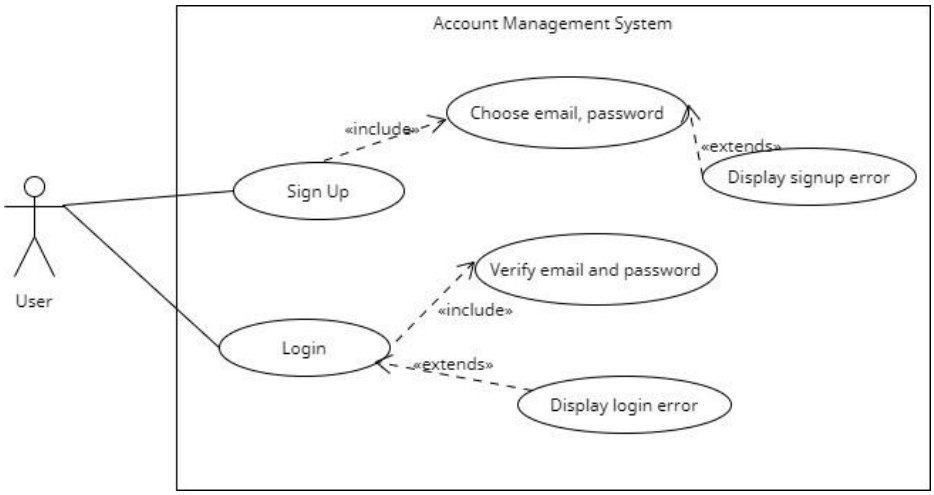
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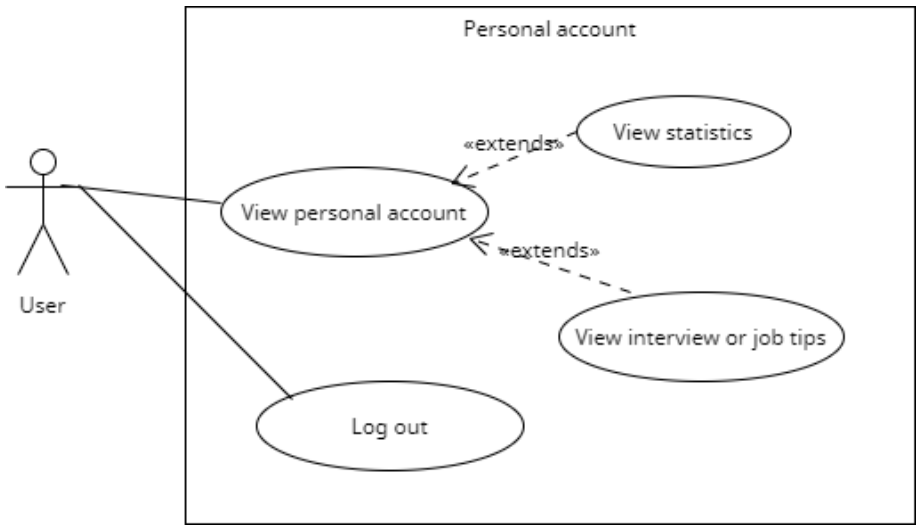
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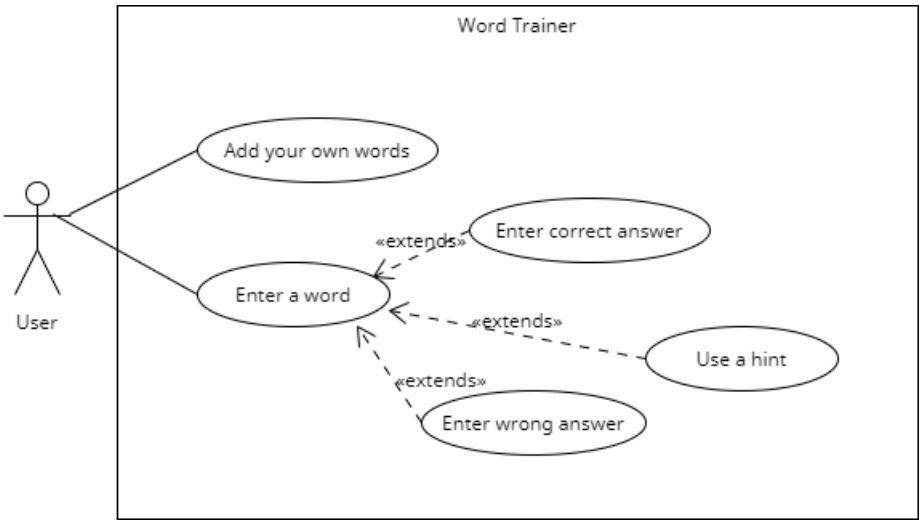
User
View interview or job tips
Log out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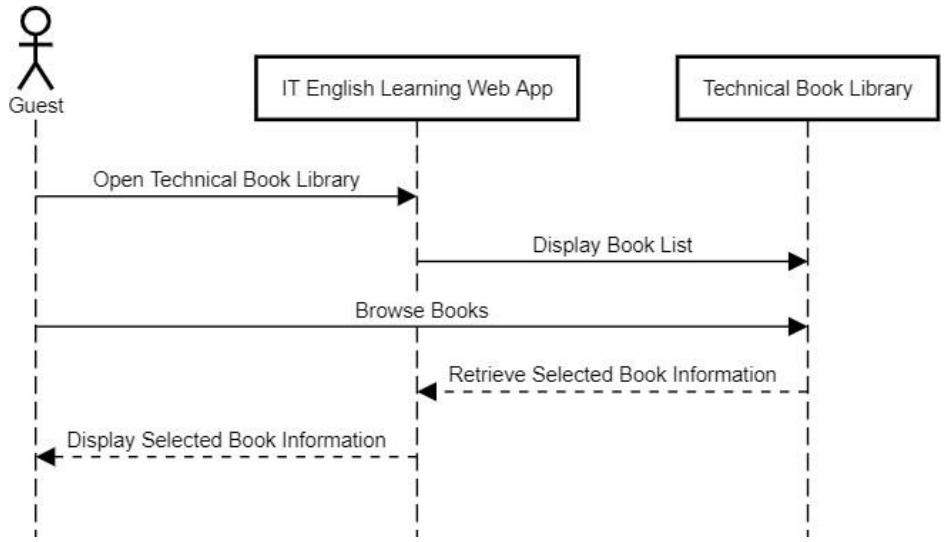
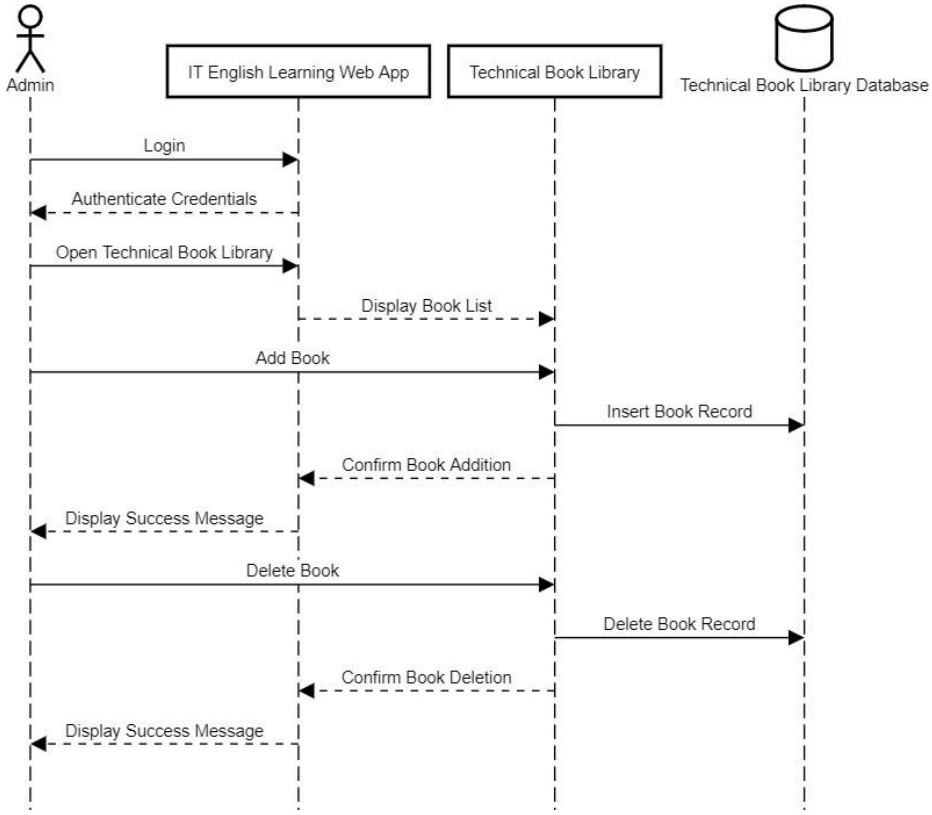
Enter a word
«extends»
User
Use a hint
«extends»
Enter wrong answer

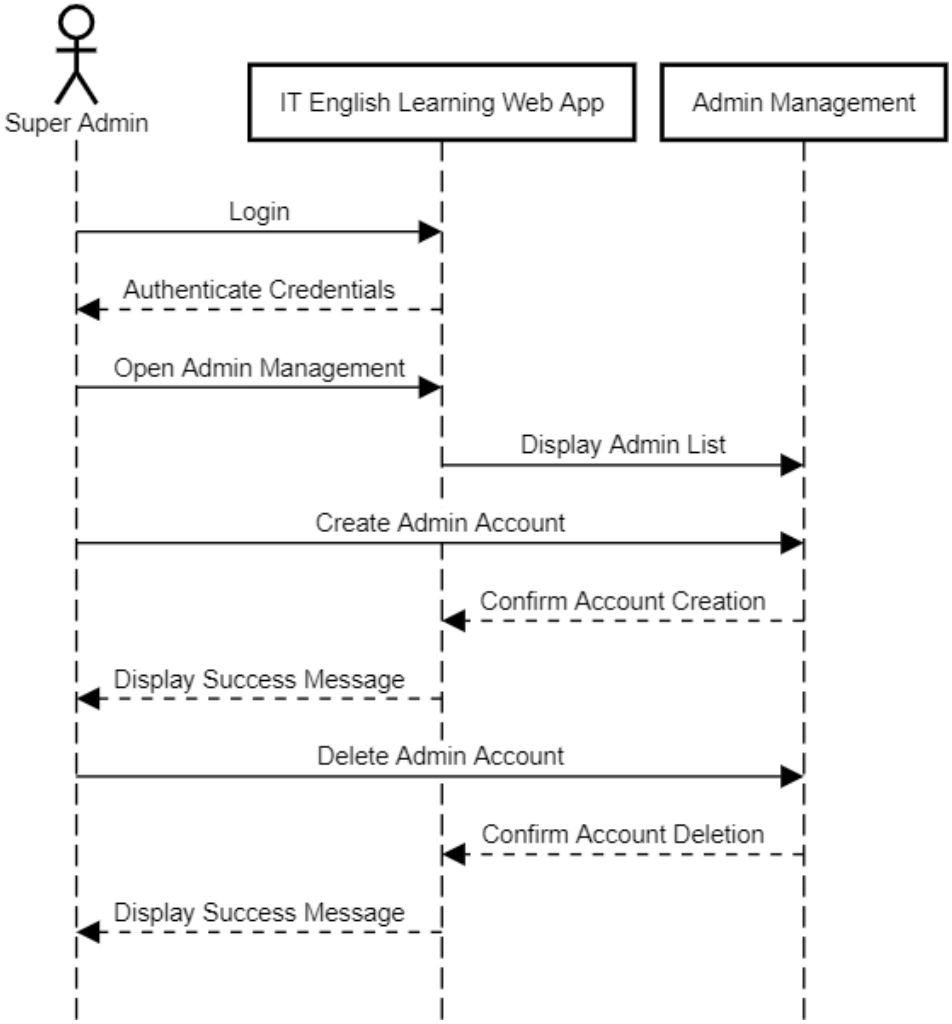
Sequence diagrams:

Guest User Browse Technical Book Library

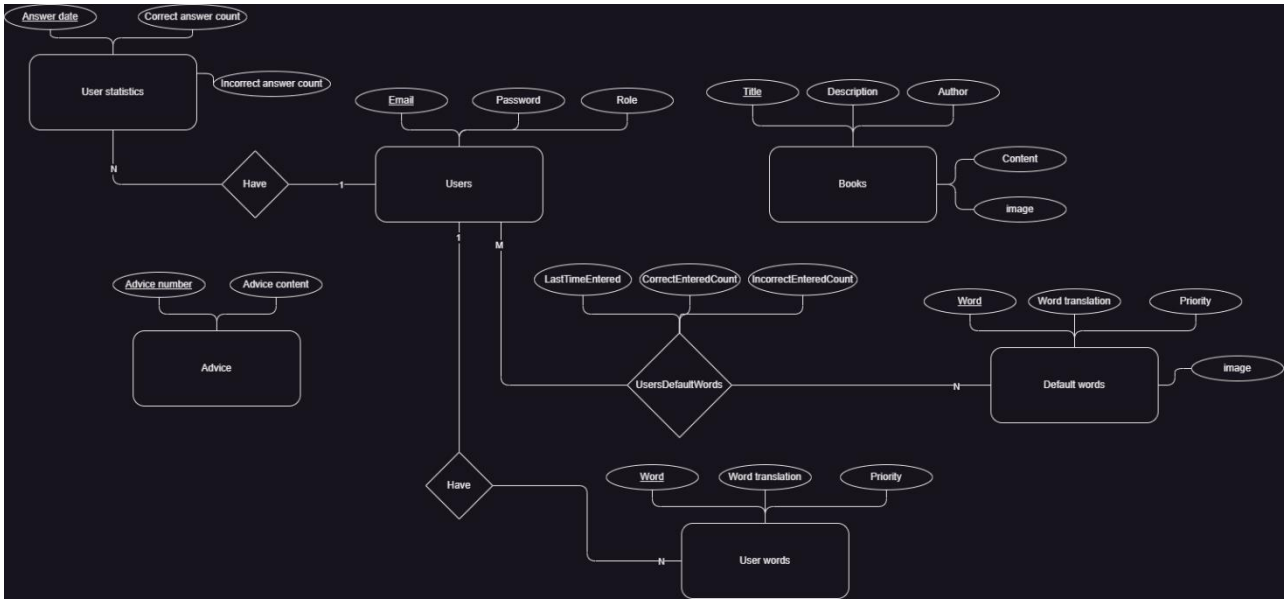




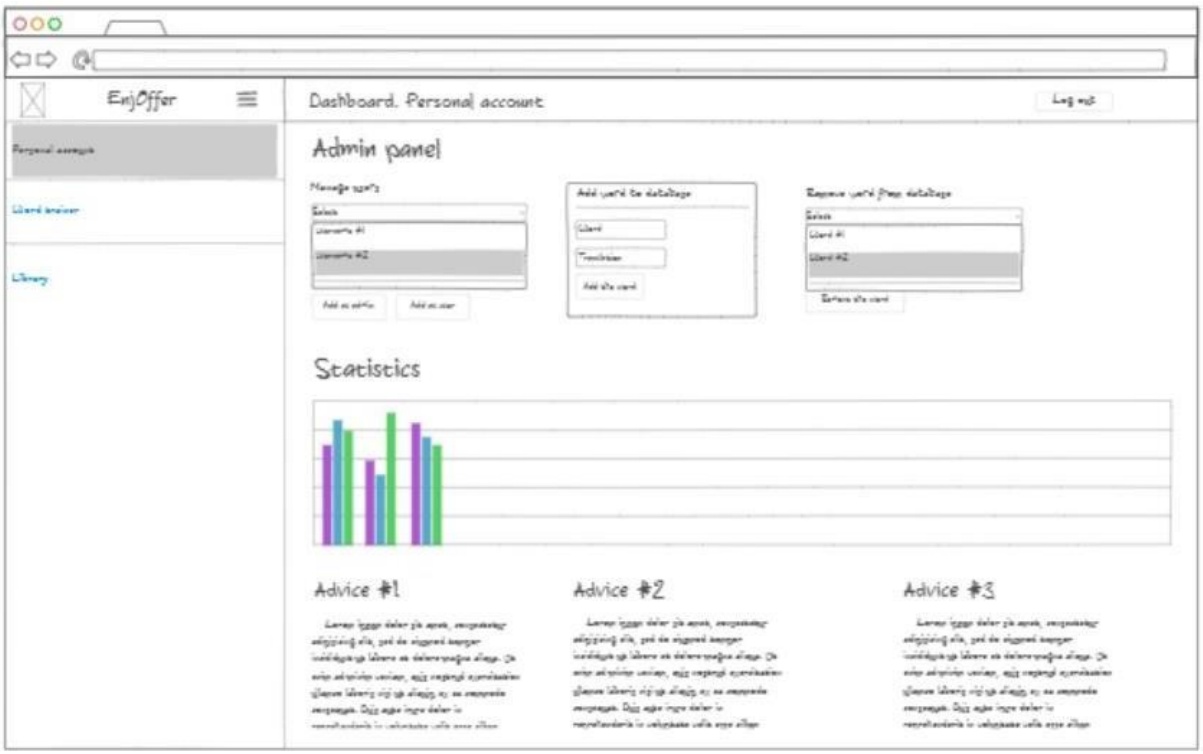
Super Admin User Manage Admin Accounts

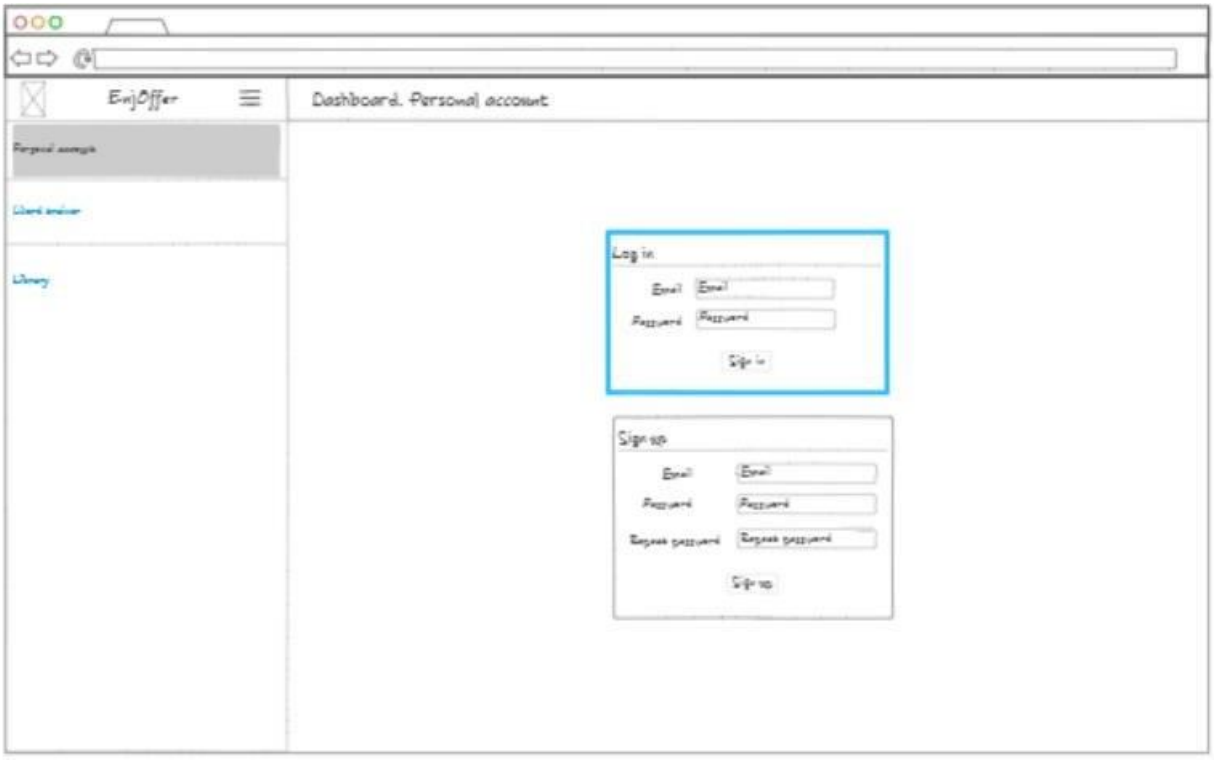


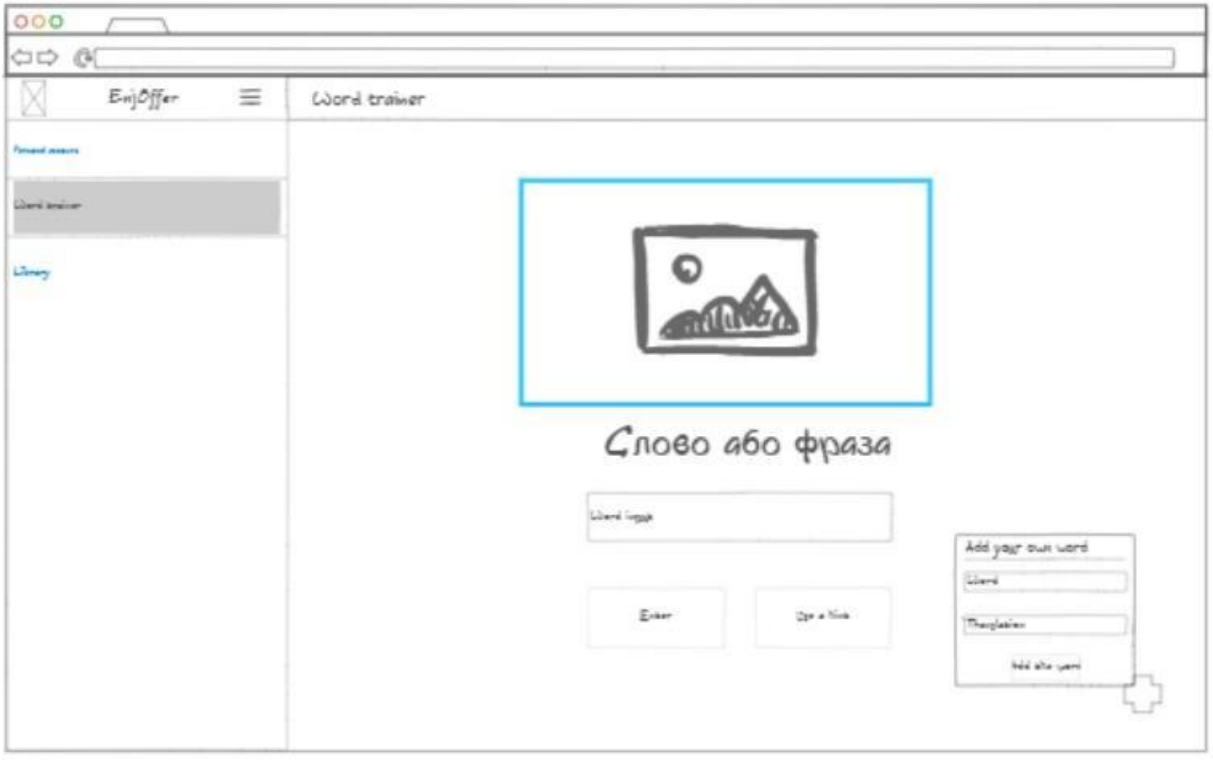
Entity-Relationship model:

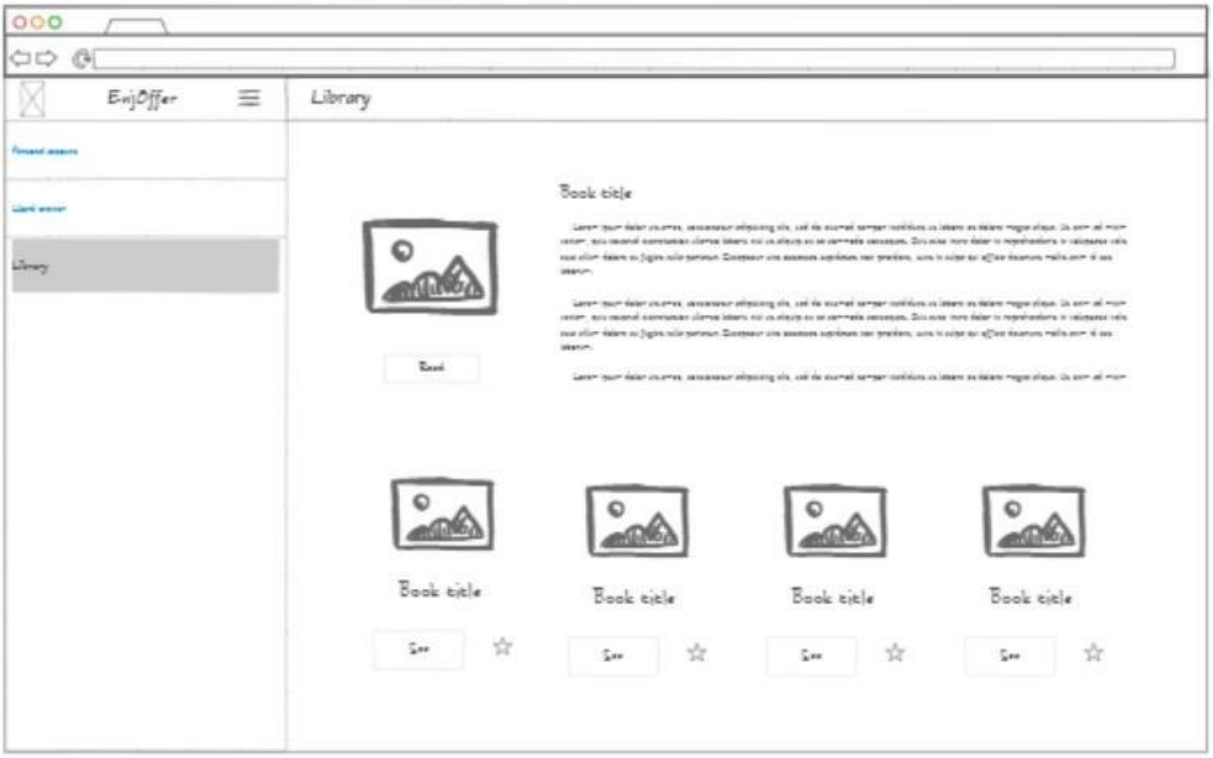


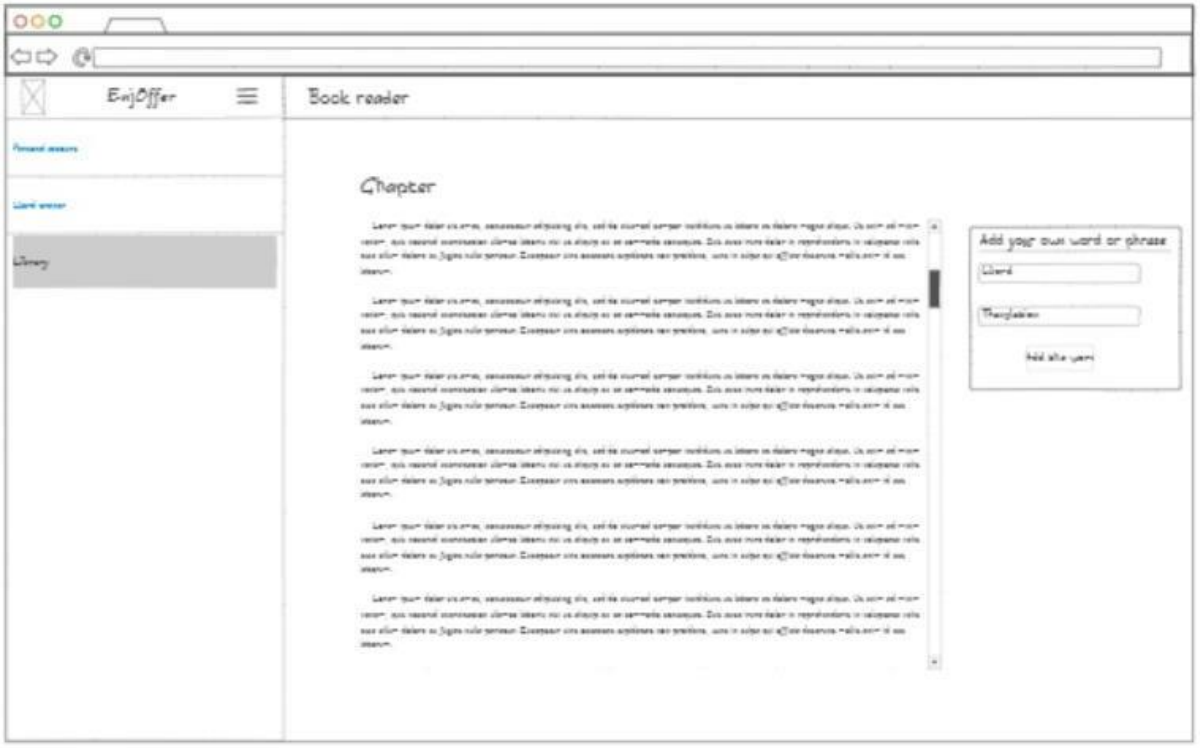
Mockup:




EnjOffer
Dashboard. Personal account
Log in
Email
Password
Sign up
Email
Password
Repeat password


EnjOffer
Word trainer
Слово або фраза
Enter
Add your own word


EnjOffer
Library
Book title
Book title
Book title
Book title
Book title


EnjOffer
Book reader
Chapter
Add your own word or phrase