

# Grapes: NLP Web Craft

## Design Document



Session: 2021-2025

Submitted by:

Naqeeb Ahmed	2021-CS-616
Munib Ur Rehman	2021-CS-605
Ahsan Bashir	2021-CS-628

Supervised by:  
Dr. Zeeshan Ramzan

Department of Computer Science, New Campus  
**University of Engineering and Technology**  
**Lahore, Pakistan**

# Contents

# List of Figures

# List of Tables

# Chapter 1

## Requirement Specification

### 1.1 REQUIREMENT SPECIFICATION

#### 1.1.1 Functional Requirements

In developing a robust NLP Web Craft system, a comprehensive set of functional requirements has been defined. The functional requirements are grouped into four categories: Business requirements, administrative requirements, user requirements, and service requirements. Each category is assigned a unique identifier, such as B for business, A for administrative, U for user, and S for service requirements. The requirements are then numbered within each category, starting with 01.

The following list describes the main functions the system will perform:

- **FR-B-01:** The system shall provide web development business services aimed at individuals and small businesses.
- **FR-B-02:** The system shall target businesses looking for quick and efficient website solutions.
- **FR-B-03:** The system shall cater to content creators seeking to establish their online presence through customizable websites.
- **FR-B-04:** The system shall provide value-added services to enhance user experience, such as SEO optimization.

- **FR-B-05:** The system shall create business opportunities through affiliate marketing and partnerships with template providers.
- **FR-B-06:** The system shall offer subscription-based services for users seeking premium templates and advanced features.
- **FR-A-01:** The system shall enable and disable admin access for managing user accounts and roles.
- **FR-A-02:** The system shall allow admins to manage user roles and permissions, ensuring proper access control for different services.
- **FR-A-03:** The system shall share login IDs and new passwords with admins as needed for account recovery.
- **FR-A-04:** The system shall enable admins to view user activity logs to monitor interactions with the chatbot and website creation services.
- **FR-U-01:** The system shall provide a chatbot that interacts with users, asking questions about the type of website they want (e-commerce, blog, portfolio) to facilitate web development services.
- **FR-U-02:** The chatbot shall understand the user's responses and create a website plan based on their input, guiding them in content management and design services.
- **FR-U-03:** The system shall offer ready-to-use templates for different types of websites, including e-commerce, blogs, and portfolios, enhancing the template design services.
- **FR-U-04:** Users shall have the ability to customize design elements such as headers, footers, and color schemes for their websites, utilizing user experience (UX) services.
- **FR-U-05:** After editing, users shall be able to download their websites as a ZIP file containing all the HTML, CSS, and JS files, providing interoperability and export functionality.
- **FR-U-06:** The downloaded website files shall be fully editable by users for future modifications, ensuring ongoing user support and technical assistance.

- **FR-S-01:** The system shall provide a chatbot service to gather user requirements and preferences for website creation.
- **FR-S-02:** The system shall offer template design services, allowing users to select from various pre-built website templates.
- **FR-S-03:** The system shall facilitate customization services, enabling users to modify design elements of their websites.
- **FR-S-04:** The system shall support content management services, allowing users to organize and manage their website content effectively.
- **FR-S-05:** The system shall enable downloading services for users to export their website files as editable ZIP files.
- **FR-S-06:** The system shall provide ongoing technical support services for users to assist with any issues related to their websites.

### 1.1.2 Non-functional Requirements

In developing the NLP Web Craft system, we aim to create a robust and user-friendly platform that empowers users to effortlessly build and customize their websites using advanced natural language processing technologies. The project is designed to simplify the web development process for individuals and businesses, making it accessible even to those without technical expertise. By integrating a chatbot interface and ready-to-use templates, users can quickly generate website plans and customize design elements, ultimately enhancing their online presence.

To ensure the system meets the needs of diverse users, we've defined a comprehensive set of non-functional requirements. These requirements focus on various aspects of the system's performance, usability, reliability, and scalability. Each requirement has been categorized and assigned a unique identifier for easy reference.

- **NFR-U-01:** The interface must be simple and intuitive for non-technical users.
- **NFR-U-02:** Users must be able to preview their websites in real-time while editing.
- **NFR-U-03:** The system must be mobile-friendly for easy use across all devices.

- **NFR-U-04:** Users must have the ability to undo/redo changes during website editing.
- **NFR-R-01:** The system must handle temporary internet disruptions gracefully.
- **NFR-R-02:** The system must gradually degrade without failure under heavy load.
- **NFR-S-01:** The system must accommodate increases in data storage without performance degradation.
- **NFR-S-02:** The system must support new features without requiring significant rewrites.
- **NFR-S-03:** Specific components of the system must scale independently (e.g., the chatbot or API).
- **NFR-S-04:** New templates and design elements must be easy to add over time.
- **NFR-P-01:** The system must respond to user requests within 2 seconds.
- **NFR-P-02:** API data searches must complete in 1 second or less.
- **NFR-P-03:** Templates and previews must be updated in real-time during editing.
- **NFR-P-04:** The system must function smoothly on low-bandwidth connections.

### 1.1.3 Use Case Diagram

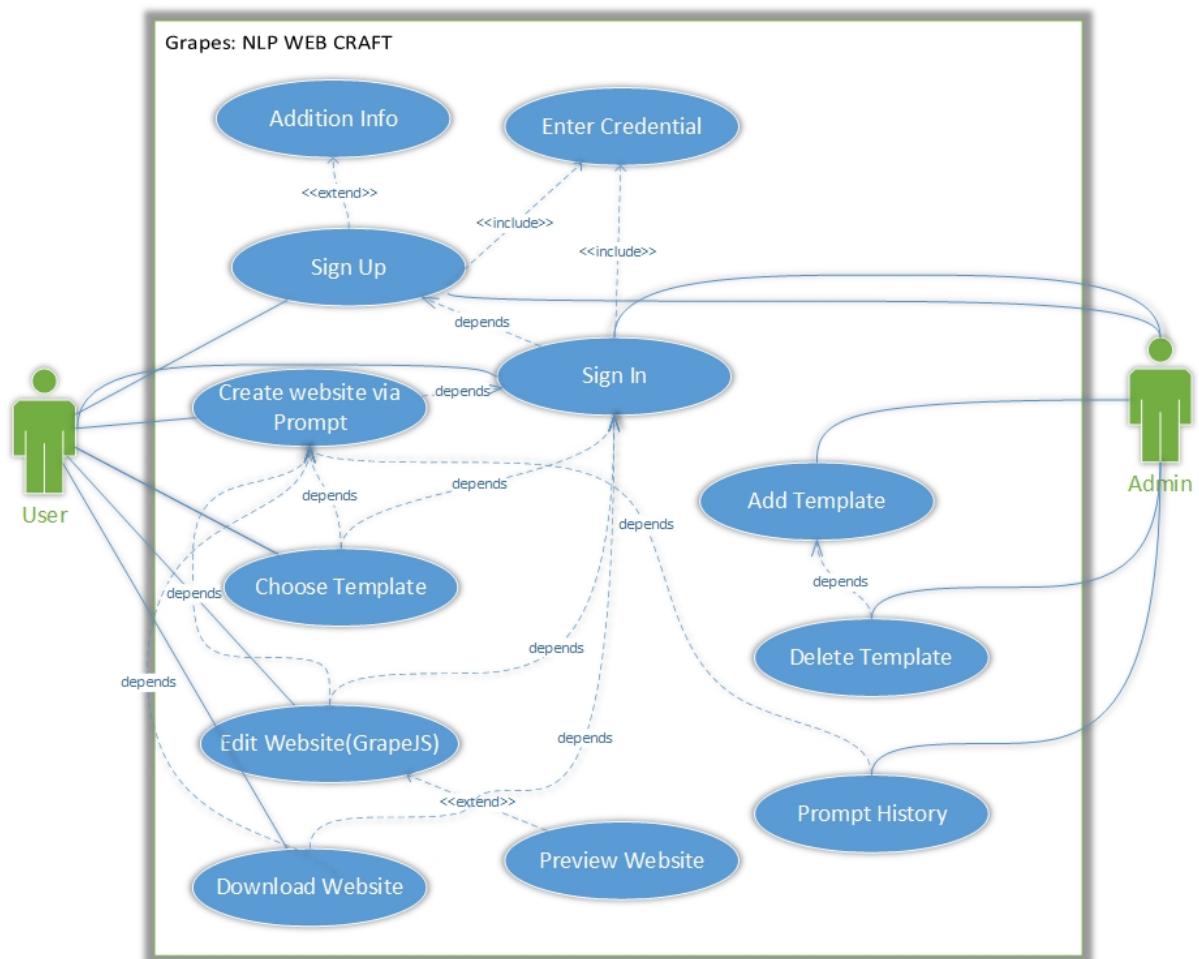


Figure 1.1: Use Case Diagram

<b>Use Case Name</b>	User Sign-Up for NLP Web Craft
<b>Primary Actor</b>	User
<b>Trigger</b>	When the "Create Account" button is pressed to register a new user.
<b>Goal</b>	Successfully create a user account to use the chatbot and website-building tools.
<b>Precondition</b>	The user is not already registered in the system.
<b>Postcondition</b>	User successfully creates an account and gains access to the system features.
<b>Basic Flow</b>	<ul style="list-style-type: none"><li>• User opens the NLP Web Craft platform.</li><li>• User navigates to the "Sign-Up" subsection.</li><li>• System prompts for user details (name, email, password).</li><li>• User enters the required information.</li><li>• System validates the information (e.g., email, password strength).</li><li>• If valid, the system creates a new user account.</li></ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"><li>• Must be available 24/7 to ensure continuous service.</li><li>• Must be responsive and work across all devices and screen sizes</li></ul>
<b>Exception</b>	<ul style="list-style-type: none"><li>• Connection error: User should check the internet connection and retry.</li><li>• Session expired: User needs to re-login to continue</li></ul>

Table 1.1: Use Case for User Sign-Up in NLP Web Craft

<b>Use Case Name</b>	Admin Sign-Up
<b>Primary Actor</b>	Admin
<b>Trigger</b>	When the "Sign Up" button is pressed to create a new admin account.
<b>Goal</b>	Successfully create a new admin account for accessing and managing the system.
<b>Precondition</b>	The administrator is not already registered in the system.
<b>Postcondition</b>	The administrator successfully creates an admin account and gains access to the administrative features of the application.
<b>Basic Flow</b>	<ul style="list-style-type: none"><li>• The administrator opens the car showroom application.</li><li>• The administrator navigates to the "Admin Sign-Up" subsection.</li><li>• The system prompts the administrator to provide necessary information (username, email, password, and contact details).</li><li>• The administrator enters the required information.</li><li>• The system validates the entered information (e.g., checks for valid email format, password strength).</li><li>• If the information is valid, the system creates a new admin account.</li></ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"><li>• Must be available 24/7 to ensure continuous service.</li><li>• Must be responsive and work across all devices and screen sizes</li></ul>
<b>Exception</b>	<ul style="list-style-type: none"><li>• Connection error: Admin should check the internet connection and retry.</li><li>• Session expired: Admin needs to re-login to continue</li></ul>

Table 1.2: Use Case for Admin Sign-Up

<b>Use Case Name</b>	User Sign-In for NLP Web Craft
<b>Primary Actor</b>	User
<b>Trigger</b>	When the "Log In" button is pressed to access the User dashboard.
<b>Goal</b>	Successfully create a user account to use the chatbot and website-building tools.
<b>Precondition</b>	The user is not already registered in the system.
<b>Postcondition</b>	User successfully creates an account and gains access to the system features.
<b>Basic Flow</b>	<ul style="list-style-type: none"><li>• User opens the NLP Web Craft platform.</li><li>• User navigates to the "Sign-Up" section.</li><li>• System prompts for user details (name, email, password).</li><li>• User enters the required information.</li><li>• System validates the information (e.g., email, password strength).</li><li>• If valid, the system creates a new user account.</li></ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"><li>• Must be available 24/7 to ensure continuous service.</li><li>• Must be responsive and work across all devices and screen sizes</li></ul>
<b>Exception</b>	<ul style="list-style-type: none"><li>• Connection error: User should check the internet connection and retry.</li><li>• Session expired: User needs to re-login to continue</li></ul>

Table 1.3: Use Case: User Sign-In for NLP Web Craft

<b>Use Case Name</b>	Admin Sign-In
<b>Primary Actor</b>	Admin
<b>Trigger</b>	When the "Log In" button is pressed to access the admin dashboard.
<b>Goal</b>	Successfully log in to the admin account to manage the application.
<b>Precondition</b>	The administrator has a registered admin account.
<b>Postcondition</b>	The administrator is logged into the system and can access administrative features.
<b>Basic Flow</b>	<ul style="list-style-type: none"><li>• The administrator navigates to the "Admin Sign-In" section.</li><li>• The system prompts the administrator to enter their username and password.</li><li>• The administrator enters the required login credentials.</li><li>• The system validates the credentials against the database.</li><li>• If the credentials are valid, the system grants access and redirects the administrator to the admin dashboard.</li></ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"><li>• Must be available 24/7 to ensure continuous service.</li><li>• Must be responsive and work across all devices and screen sizes</li></ul>
<b>Exception</b>	<ul style="list-style-type: none"><li>• Connection error: Admin should check the internet connection and retry.</li><li>• Session expired: Admin needs to re-login to continue</li></ul>

Table 1.4: Use Case for Admin Sign-In

<b>Use Case Name</b>	Create Website Via Prompt
<b>Primary Actor</b>	User
<b>Trigger</b>	When the "Create Website" button is pressed after selecting a type and writing a prompt.
<b>Goal</b>	Successfully create a website based on the user's prompt and selected type.
<b>Precondition</b>	The user is logged in to the system.
<b>Postcondition</b>	The website is created based on the user's specifications and is accessible for further editing.
<b>Basic Flow</b>	<ul style="list-style-type: none"> <li>• The system presents three options for website types: E-commerce, Blog, and Portfolio.</li> <li>• The system prompts the user to enter a description or prompt for the website.</li> <li>• The user writes and submits the prompt.</li> </ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"> <li>• Must be available 24/7 to ensure continuous service.</li> <li>• Must be responsive and work across all devices and screen sizes</li> </ul>
<b>Exception</b>	<ul style="list-style-type: none"> <li>• Connection error: User should check the internet connection and retry.</li> <li>• Session expired: User needs to re-login to continue</li> </ul>

Table 1.5: Use Case for Create Website Via Prompt

<b>Use Case Name</b>	Choose Template Theme
<b>Primary Actor</b>	User
<b>Trigger</b>	When the "Select Template" button is pressed to choose a template for the website.
<b>Goal</b>	Successfully choose a template that fits the user's needs.
<b>Precondition</b>	The user has created a website and is ready to choose a template.
<b>Postcondition</b>	The user successfully selects a template, and the website is updated accordingly.
<b>Basic Flow</b>	<ul style="list-style-type: none"> <li>• The user opens the template selection section of the NLP Web Craft platform.</li> <li>• The system presents a gallery of available templates.</li> <li>• The user browses through the templates and selects one.</li> <li>• The system updates the website with the selected template.</li> </ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"> <li>• Must be available 24/7 to ensure continuous service.</li> <li>• Must be responsive and work across all devices and screen sizes</li> </ul>
<b>Exception</b>	<ul style="list-style-type: none"> <li>• Connection error: User should check the internet connection and retry.</li> <li>• Session expired: User needs to re-login to continue</li> </ul>

Table 1.6: Use Case for Choose Template

<b>Use Case Name</b>	Customize Website
<b>Primary Actor</b>	User
<b>Trigger</b>	When the "Edit" button is pressed after selecting a website template.
<b>Goal</b>	Successfully customize the website according to user preferences.
<b>Precondition</b>	The user has selected a template for the website.
<b>Postcondition</b>	The website is customized according to user preferences and is saved for future access.
<b>Basic Flow</b>	<ul style="list-style-type: none"> <li>• The user navigates to the website dashboard.</li> <li>• The user selects the website they wish to edit.</li> <li>• The system opens the GrapeJS editor for the selected website.</li> <li>• The user customizes the website using the editing tools available in GrapeJS.</li> <li>• The user saves the changes made to the website.</li> </ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"> <li>• Must be available 24/7 to ensure continuous service.</li> <li>• Must be responsive and work across all devices and screen sizes</li> </ul>
<b>Exception</b>	<ul style="list-style-type: none"> <li>• Connection error: User should check the internet connection and retry.</li> <li>• Customization failed: User must refresh the browser and try the customization again</li> </ul>

Table 1.7: Use Case for Customize Website

<b>Use Case Name</b>	Edit Website Using GrapeJS
<b>Primary Actor</b>	User
<b>Trigger</b>	When the "Edit" button is pressed to open the GrapeJS editor for customization.
<b>Goal</b>	Successfully modify and customize the website using GrapeJS editor.
<b>Precondition</b>	The user has selected a template for their website.
<b>Postcondition</b>	The changes made to the website are saved, and the user can preview the updated website.
<b>Basic Flow</b>	<ul style="list-style-type: none"> <li>• The user navigates to the "Edit Website" section using GrapeJS.</li> <li>• The system loads the selected template into the GrapeJS editor.</li> <li>• The user interacts with the GrapeJS interface to modify elements (text, images, layout).</li> <li>• The user can add, remove, or rearrange components within the website.</li> </ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"> <li>• Must be available 24/7 to ensure continuous service.</li> <li>• Must be responsive and work across all devices and screen sizes</li> </ul>
<b>Exception</b>	<ul style="list-style-type: none"> <li>• Connection error: User should check the internet connection and retry.</li> <li>• Session expired: User needs to re-login to continue</li> </ul>

Table 1.8: Use Case: Edit Website Using GrapeJS

<b>Use Case Name</b>	Download Website
<b>Primary Actor</b>	User
<b>Trigger</b>	When the "Download" button is pressed to download the completed website files.
<b>Goal</b>	Successfully download the website files in a zip format.
<b>Precondition</b>	The user has edited and finalized their website using the GrapeJS editor.
<b>Postcondition</b>	The website files are downloaded to the user's device.
<b>Basic Flow</b>	<ul style="list-style-type: none"> <li>• The user navigates to the "Download Website" section.</li> <li>• The system presents an option to download the completed website.</li> <li>• The user clicks the "Download" button.</li> <li>• The system compiles the website files (HTML, CSS, JavaScript, assets) into a zip file.</li> <li>• The system prompts the user to save the zip file to their device.</li> </ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"> <li>• Must be available 24/7 to ensure continuous service.</li> <li>• Must ensure that all necessary files are included in the zip package.</li> </ul>
<b>Exception</b>	<ul style="list-style-type: none"> <li>• Connection error: User should check the internet connection and retry.</li> <li>• File upload failed: User needs to check the file format and size before uploading</li> </ul>

Table 1.9: Use Case: Download Website

<b>Use Case Name</b>	Add Template
<b>Primary Actor</b>	Admin
<b>Trigger</b>	When the "Add Template" button is pressed to upload a new template.
<b>Goal</b>	Successfully add a new template to the system for user selection.
<b>Precondition</b>	The admin is logged into the system with appropriate privileges.
<b>Postcondition</b>	The new template is available for users to select when creating their websites.
<b>Basic Flow</b>	<ul style="list-style-type: none"> <li>• The admin opens the NLP Web Craft platform.</li> <li>• The admin navigates to the "Add Template" section.</li> <li>• The system prompts the admin to upload the template files (HTML, CSS, JavaScript, assets).</li> <li>• The admin uploads the necessary files and enters relevant details (template name, description, category).</li> <li>• The system validates the uploaded files and details.</li> </ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"> <li>• Must be available 24/7 to ensure continuous service.</li> <li>• Must be responsive and work across all devices and screen sizes</li> </ul>
<b>Exception</b>	<ul style="list-style-type: none"> <li>• Connection error: User should check the internet connection and retry.</li> <li>• File upload failed: User needs to check the file format and size before uploading</li> </ul>

Table 1.10: Use Case: Add Template

<b>Use Case Name</b>	Delete Template
<b>Primary Actor</b>	Admin
<b>Trigger</b>	When the "Delete" button is pressed to remove an existing template from the system.
<b>Goal</b>	Successfully delete a template from the system.
<b>Precondition</b>	The admin is logged into the system with appropriate privileges.
<b>Postcondition</b>	The selected template is removed from the system and is no longer available for user selection.
<b>Basic Flow</b>	<ul style="list-style-type: none"> <li>• The admin navigates to the "Manage Templates" section.</li> <li>• The system displays a list of existing templates.</li> <li>• The admin selects the template they wish to delete.</li> <li>• The system prompts the admin to confirm the deletion.</li> </ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"> <li>• Must be available 24/7 to ensure continuous service.</li> <li>• Must be responsive and work across all devices and screen sizes</li> </ul>
<b>Exception</b>	<ul style="list-style-type: none"> <li>• Connection error: User should check the internet connection and retry.</li> <li>• Session expired: User needs to re-login to continue</li> </ul>

Table 1.11: Use Case: Delete Template

<b>Use Case Name</b>	View Prompt History
<b>Primary Actor</b>	Admin
<b>Trigger</b>	When the "View Prompt History" button is pressed to access the list of previous prompts.
<b>Goal</b>	Successfully access and view the history of prompts used in the system.
<b>Precondition</b>	The admin is logged into the system with appropriate privileges.
<b>Postcondition</b>	The admin can review the history of prompts and their usage.
<b>Basic Flow</b>	<ul style="list-style-type: none"> <li>• The admin navigates to the "Prompt History" section.</li> <li>• The system displays a list of all previous prompts used in the system.</li> <li>• The admin can view details about each prompt (date, time, user who initiated, etc.).</li> </ul>
<b>Alternate Flow</b>	N/A
<b>Quality Requirements</b>	<ul style="list-style-type: none"> <li>• Must be available 24/7 to ensure continuous service.</li> <li>• Must be responsive and work across all devices and screen sizes</li> </ul>
<b>Exception</b>	<ul style="list-style-type: none"> <li>• Connection error: User should check the internet connection and retry.</li> <li>• Session expired: User needs to re-login to continue</li> </ul>

Table 1.12: Use Case: View Prompt History

# Chapter 2

## Design Specification

### 2.1 USER INTERPHASE DESIGN

#### 2.1.1 WireFrames

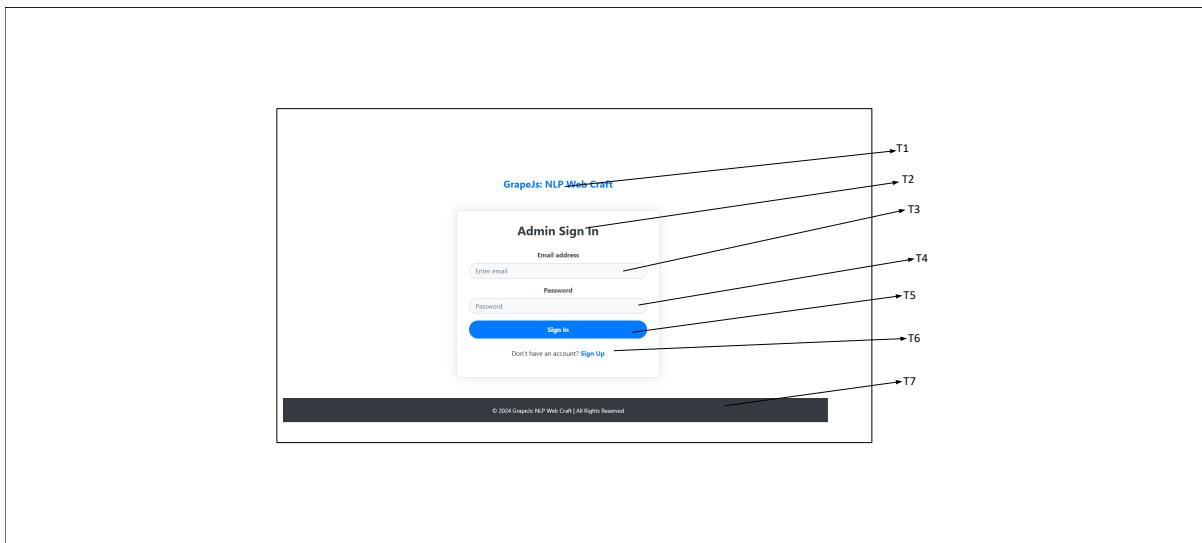


Figure 2.1: Class Diagram

Element	Description
T1	As an admin, I shall view the logo.
T2	As an admin, I shall view the Sign in page.
T3	As an admin, I shall enter my email ID.
T4	As an admin, I shall enter my password.
T5	As an admin, I shall click on the Sign in button.
T6	As an admin, I shall click on the Sign up link.
T7	As an admin, I shall view the "All rights reserved" label.

Table 2.1: Admin User Actions

Element	Description
T1	As an admin, I shall click on the dashboard.
T2	As an admin, I shall click on users.
T3	As an admin, I shall click on templates.
T4	As an admin, I shall click on notifications.
T5	As an admin, I shall click on view templates.
T6	As an admin, I shall view the admin Dashboard label.
T7	As an admin, I shall click on view users.
T8	As an admin, I shall click on view templates.
T9	As an admin, I shall click on view notifications.
T10	As an admin, I shall click on view history.
T11	As an admin, I shall view the "All rights reserved" label.

Table 2.2: Admin User Actions

<b>Element</b>	<b>Description</b>
T1	As an admin, I shall click on the dashboard.
T2	As an admin, I shall click on users.
T3	As an admin, I shall click on templates.
T4	As an admin, I shall click on notifications.
T5	As an admin, I shall click on view prompts.
T6	As an admin, I shall view the "Notifications" label.
T7	As an admin, I shall click on the view user description row.
T8	As an admin, I shall click on the respond button.
T9	As an admin, I shall click on the delete button.
T10	As an admin, I shall click on the view user name.
T11	As an admin, I shall view the user email.
T12	As an admin, I shall view the user message.
T13	As an admin, I shall view the "All rights reserved" label.

Table 2.3: Admin User Management Actions

<b>Element</b>	<b>Description</b>
T1	As an admin, I shall view the GrapesJS NLP Web Craft label.
T2	As an admin, I shall view the Sign Up page.
T3	As an admin, I shall enter my name.
T4	As an admin, I shall enter my email address.
T5	As an admin, I shall enter my password.
T6	As an admin, I shall enter my confirm password.
T7	As an admin, I shall click on the sign up button.
T8	As an admin, I shall click on the sign in link.
T9	As an admin, I shall view the "All rights reserved" label.

Table 2.4: Admin User Sign Up Actions

<b>Element</b>	<b>Description</b>
T1	As an admin, I shall click on the dashboard.
T2	As an admin, I shall click on users.
T3	As an admin, I shall click on templates.
T4	As an admin, I shall click on notifications.
T5	As an admin, I shall click on view prompts.
T6	As an admin, I shall view the "Manage templates" label.
T7	As an admin, I shall view the "Template name" label.
T8	As an admin, I shall view the "Action" label.
T9	As an admin, I shall view the "Upload template" label.
T10	As an admin, I shall click on the "Choose file" button.
T11	As an admin, I shall click on the "Add template" button.
T12	As an admin, I shall view the template name.
T13	As an admin, I shall click on the delete button.
T14	As an admin, I shall view the "All rights reserved" label.

Table 2.5: Admin User Template Management Actions

<b>Element</b>	<b>Description</b>
T1	As an admin, I shall click on the dashboard.
T2	As an admin, I shall click on users.
T3	As an admin, I shall click on templates.
T4	As an admin, I shall click on notifications.
T5	As an admin, I shall click on view prompts.
T6	As an admin, I shall view the "Encrypted password" label.
T7	As an admin, I shall view the "Total Users" label.
T8	As an admin, I shall view the "Action" label.
T9	As an admin, I shall click the delete button.
T10	As an admin, I shall view the "Username" label.
T11	As an admin, I shall view the "Email" label.
T12	As an admin, I shall view the username.
T13	As an admin, I shall view the email.
T14	As an admin, I shall view the encrypted password.
T15	As an admin, I shall view the "All rights reserved" label.

Table 2.6: Admin User Management Actions

Element	Description
T1	As an admin, I shall click on the dashboard.
T2	As an admin, I shall click on users.
T3	As an admin, I shall click on templates.
T4	As an admin, I shall click on notifications.
T5	As an admin, I shall click on view prompts.
T6	As an admin, I shall view the "All prompts" label.
T7	As an admin, I shall view the "Action" label.
T8	As an admin, I shall view the "Created At" label.
T9	As an admin, I shall click the delete button.
T10	As an admin, I shall view "Created At."
T11	As an admin, I shall view the "Created By" label.
T12	As an admin, I shall view the "ID" label.
T13	As an admin, I shall view the "Prompt" label.
T14	As an admin, I shall view the ID number.
T15	As an admin, I shall view the prompt.
T16	As an admin, I shall view the "Created By" name.
T17	As an admin, I shall view the "All rights reserved" label.

Table 2.7: Admin Prompt Management Actions

## 2.2 SYSTEM BEHAVIORAL DESIGN

### 2.2.1 Activity Diagram

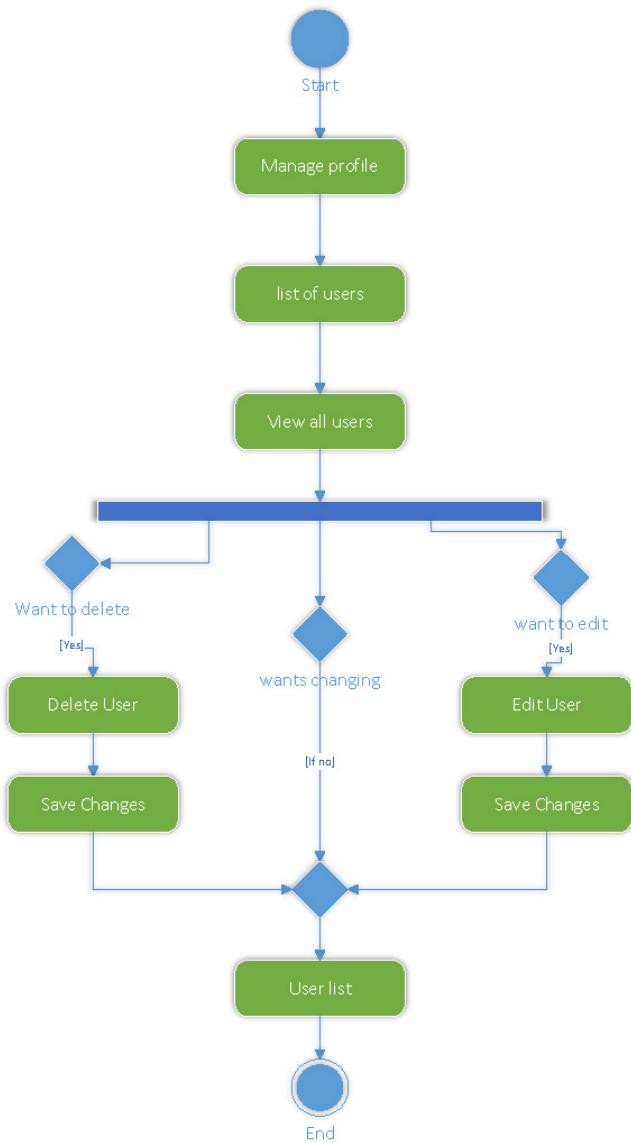


Figure 2.2: Activity Diagram: Manage User Profile (Admin)

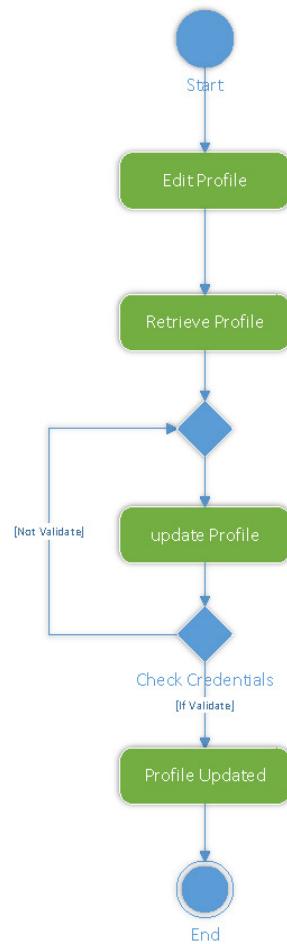


Figure 2.3: Activity Diagram: Edit Profile (Admin)

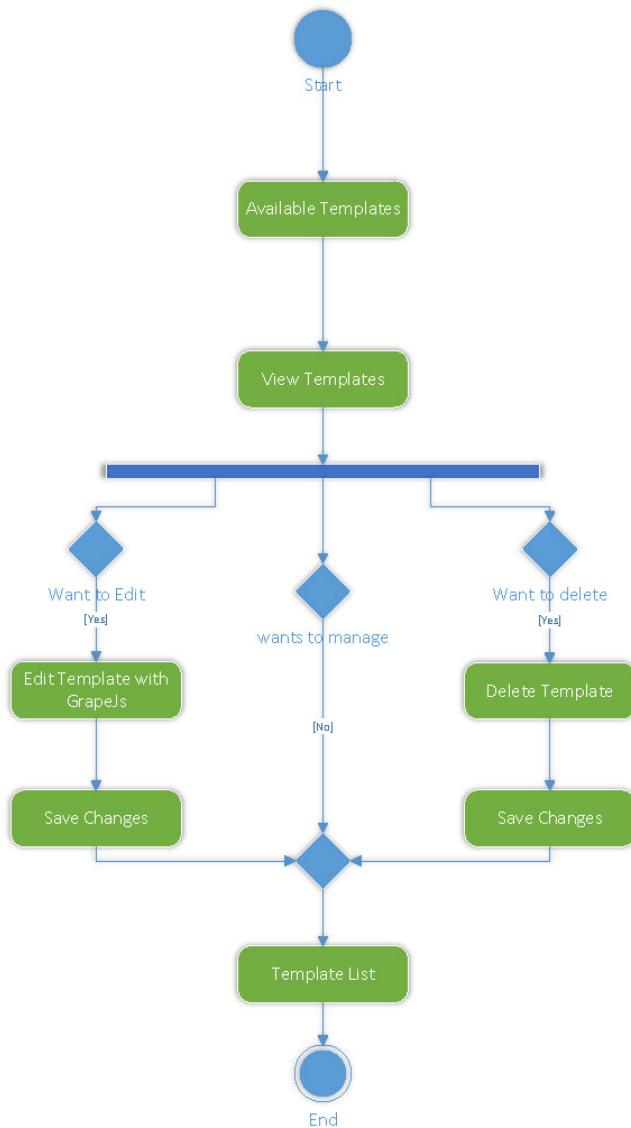


Figure 2.4: Activity Diagram: Manage Templates (Admin)

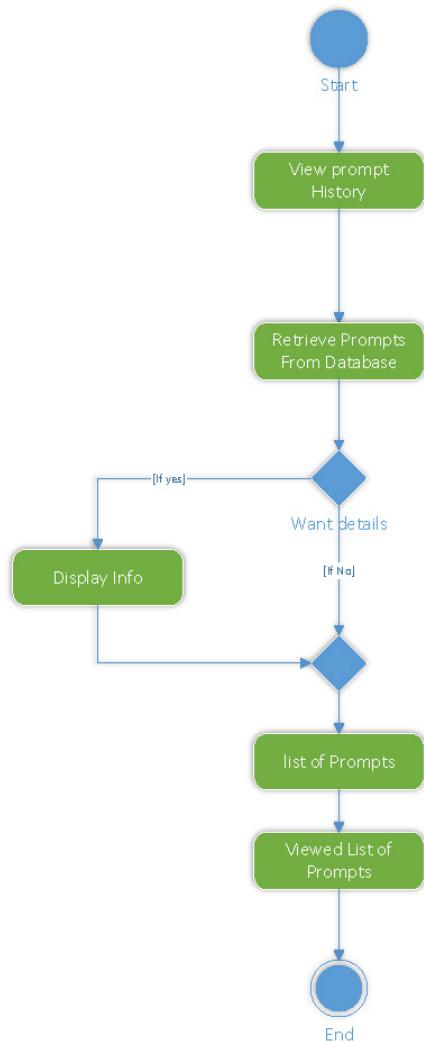


Figure 2.5: Activity Diagram: View Prompt History (Admin)

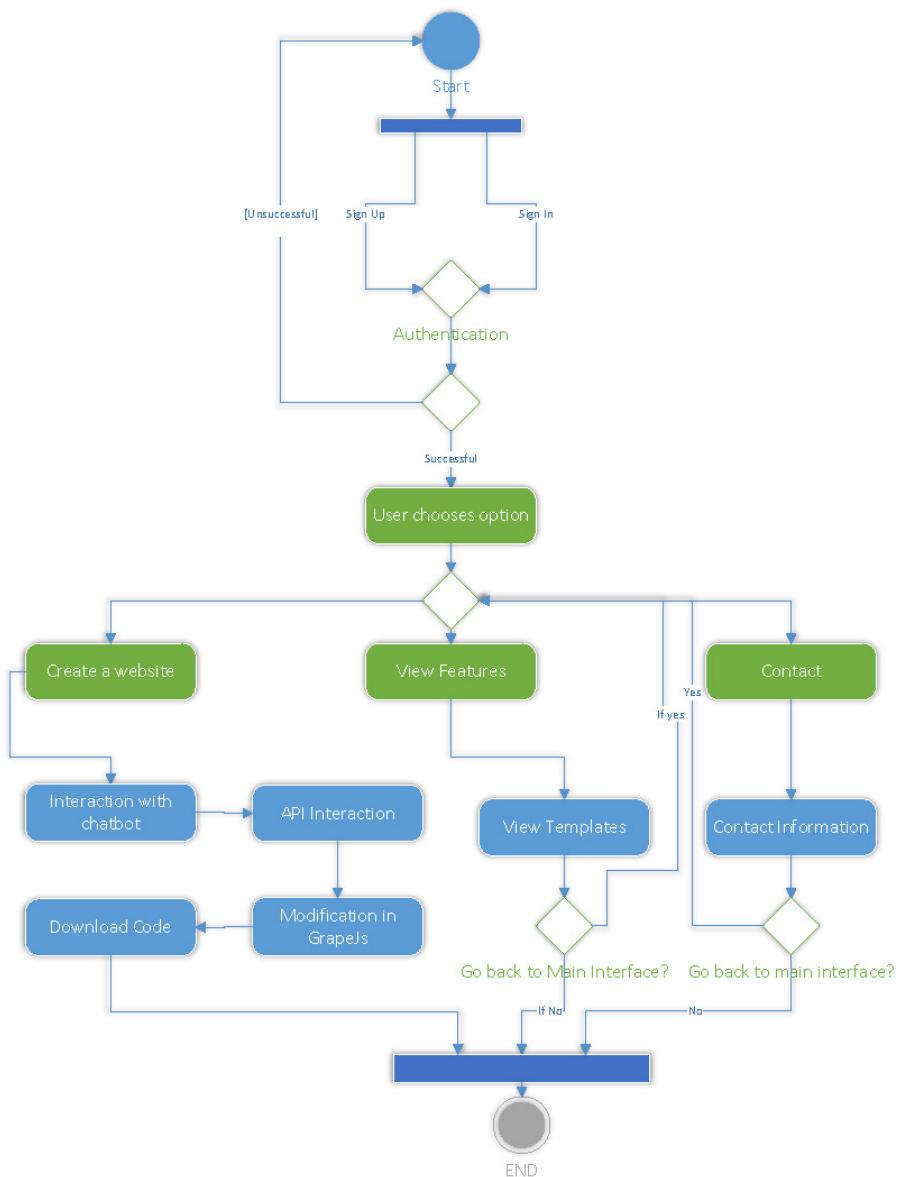


Figure 2.6: Activity Diagram: Web Creation Process (User)

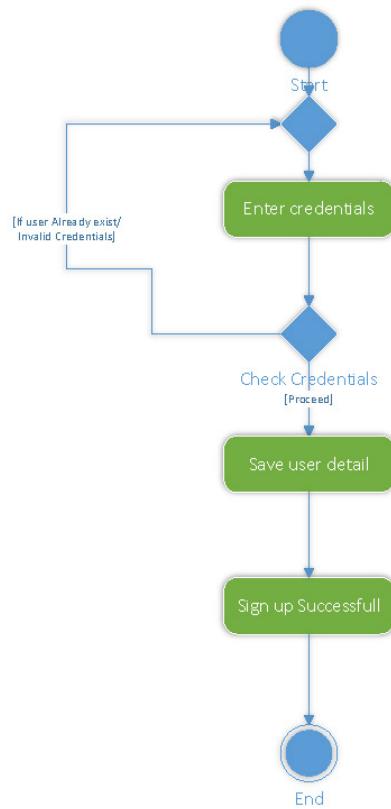


Figure 2.7: Activity Diagram: Sign Up (User/Admin)

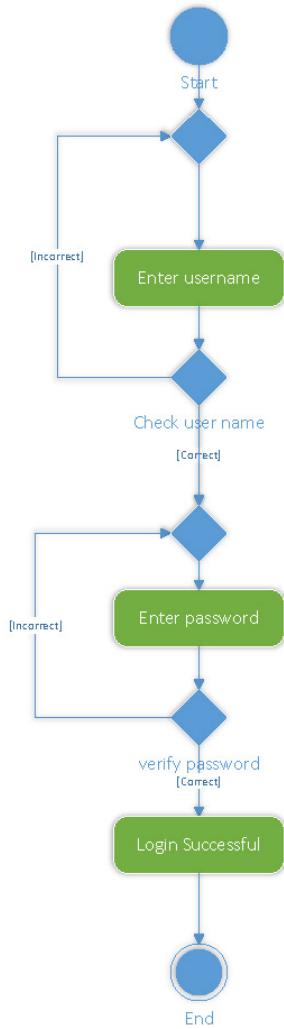


Figure 2.8: Activity Diagram: Sign In (User/Admin)

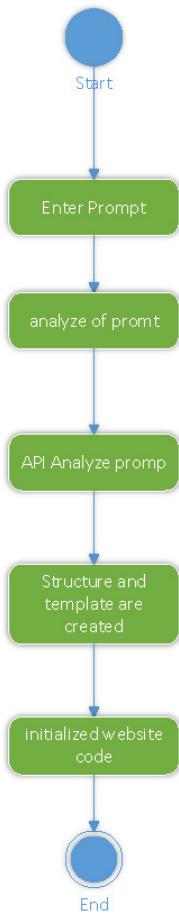


Figure 2.9: Activity Diagram: Rendering of Prompt (User)

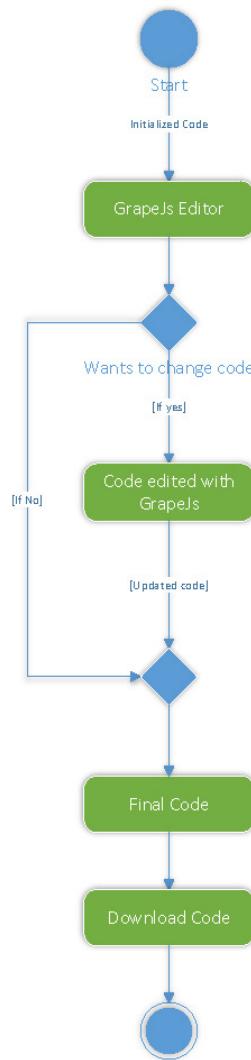


Figure 2.10: Activity Diagram: Editing With Grapejs (User)

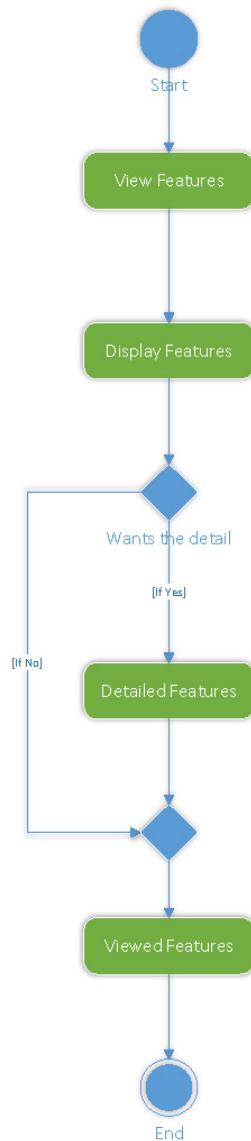


Figure 2.11: Activity Diagram: Feature View (User)

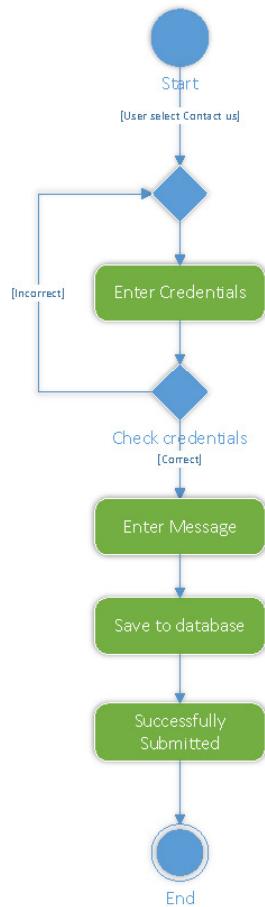


Figure 2.12: Activity Diagram: Contact (User)

### 2.2.2 State Diagram

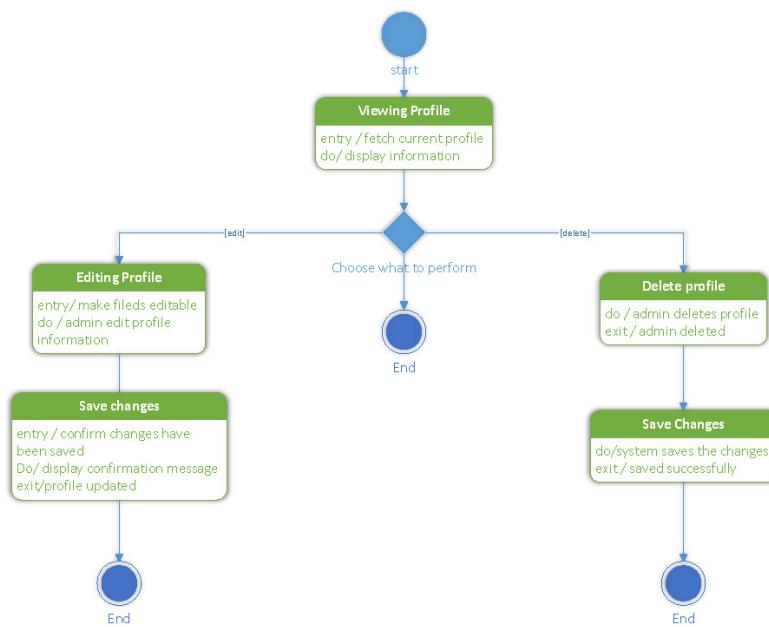


Figure 2.13: State Diagram: Manage User Profile (Admin)

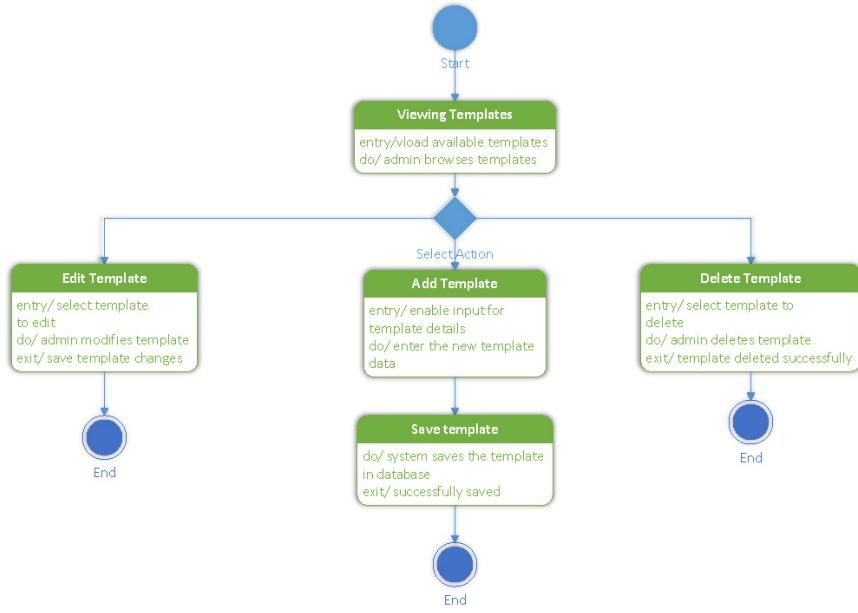


Figure 2.14: State Diagram: Manage Templates (Admin)

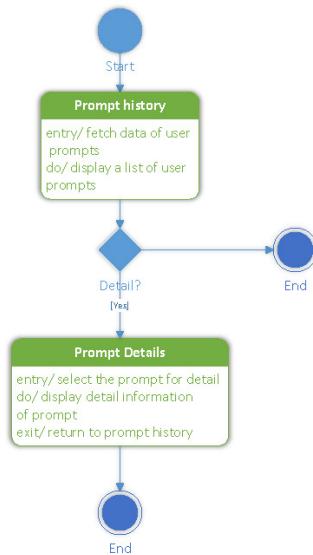


Figure 2.15: State Diagram: View Prompt History (Admin)

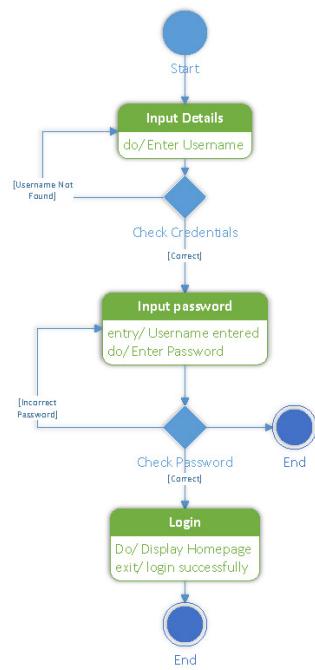


Figure 2.16: State Diagram: SignUp (Admin/User)

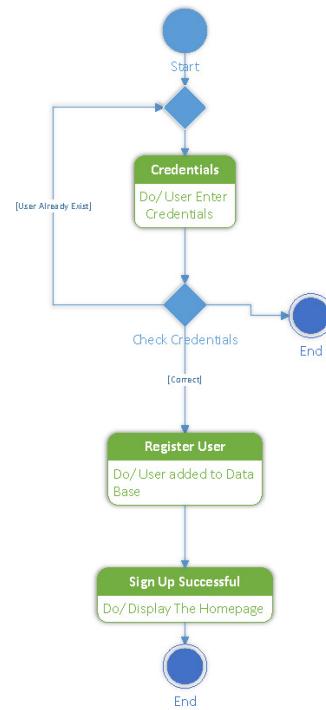


Figure 2.17: State Diagram: SignIn (Admin/User)

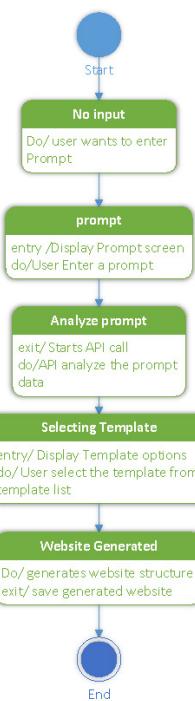


Figure 2.18: State Diagram: Rendering of Prompt (User)

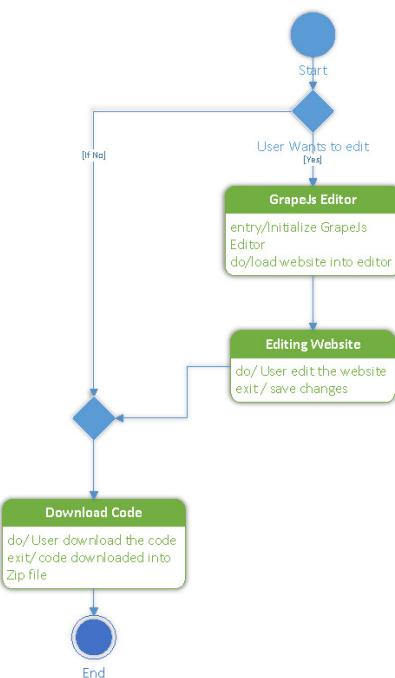


Figure 2.19: State Diagram: Download Code (User)

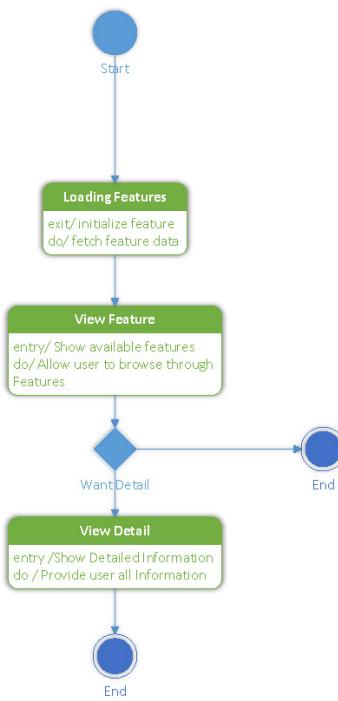


Figure 2.20: State Diagram: Editing with GrapeJS (User)

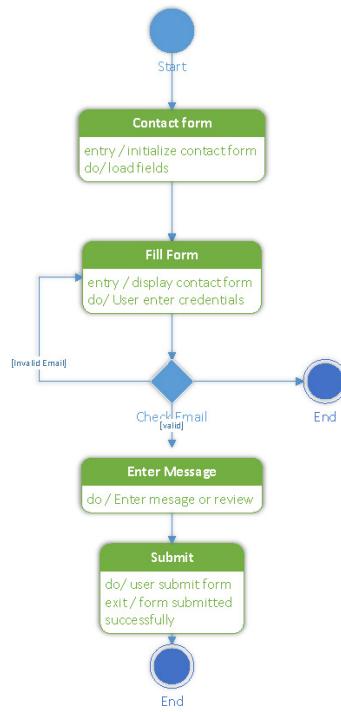


Figure 2.21: State Diagram: Contact (User)

### 2.2.3 Sequence Diagrams

The following sequence diagrams illustrate the interactions within the system.

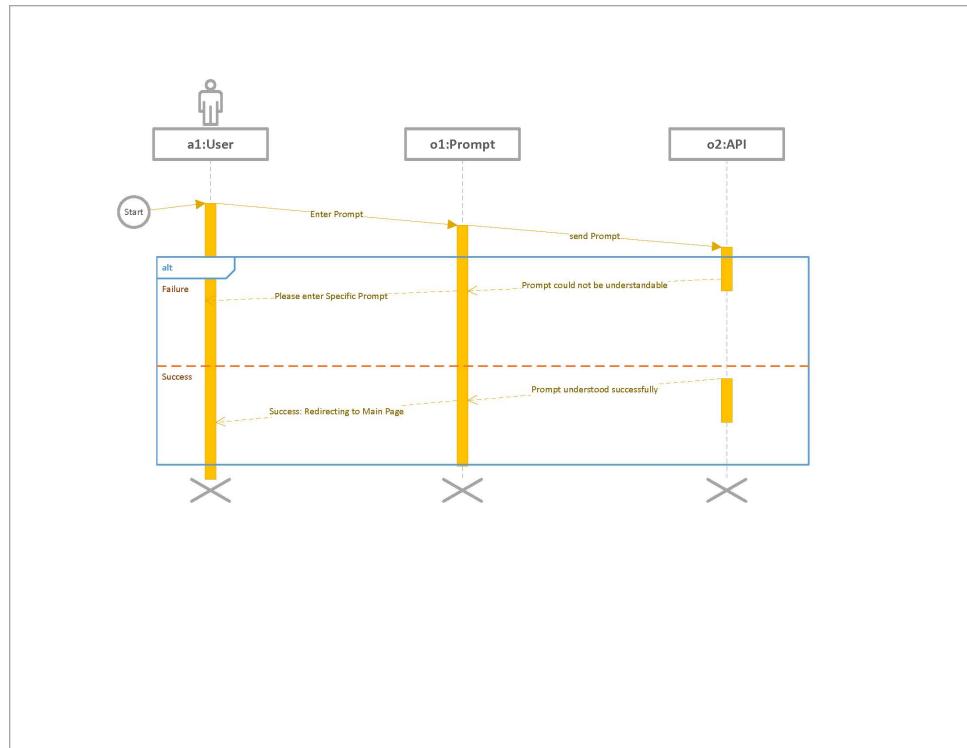


Figure 2.22: Sequence Diagram: Prompt (User)

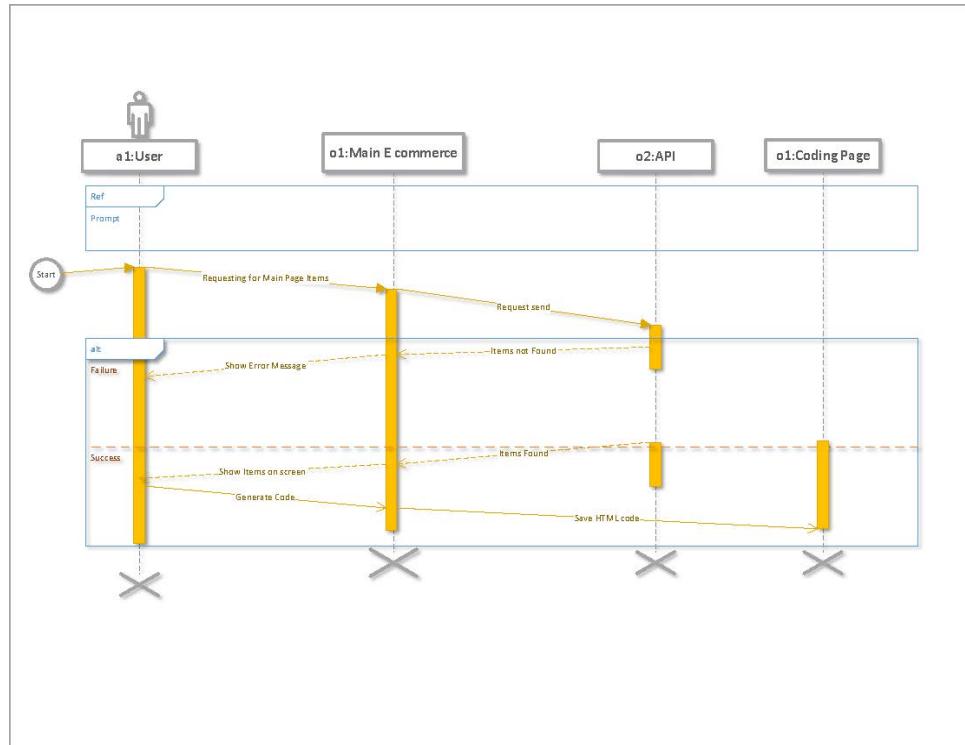


Figure 2.23: Sequence Diagram: Main of E-commerce a (User)

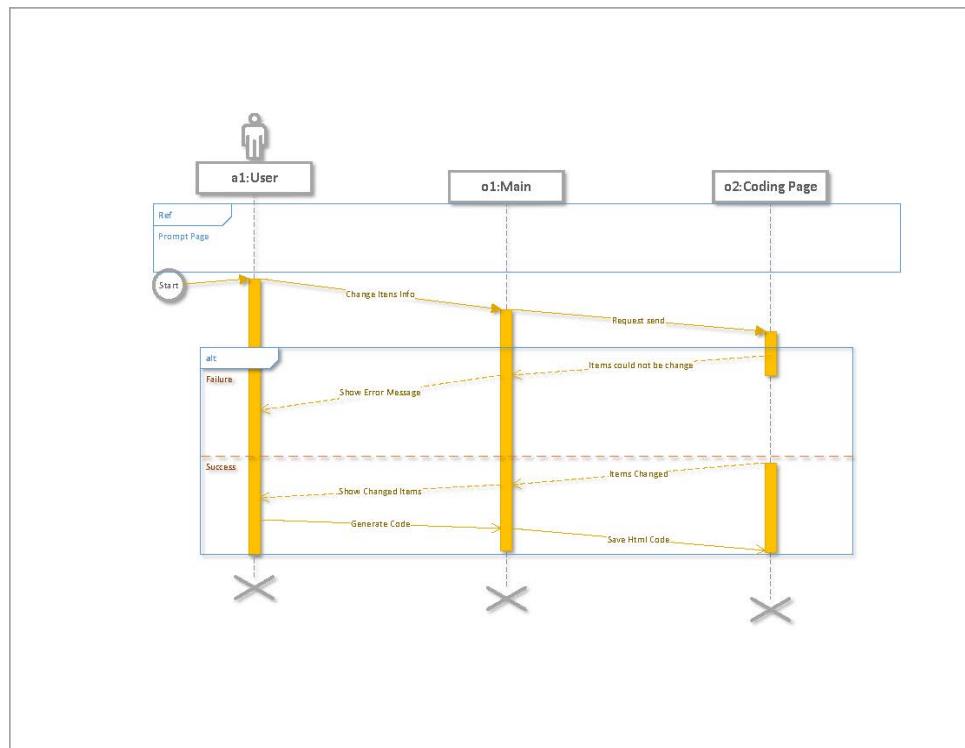


Figure 2.24: Sequence Diagram: Main of E-commerce b (User)

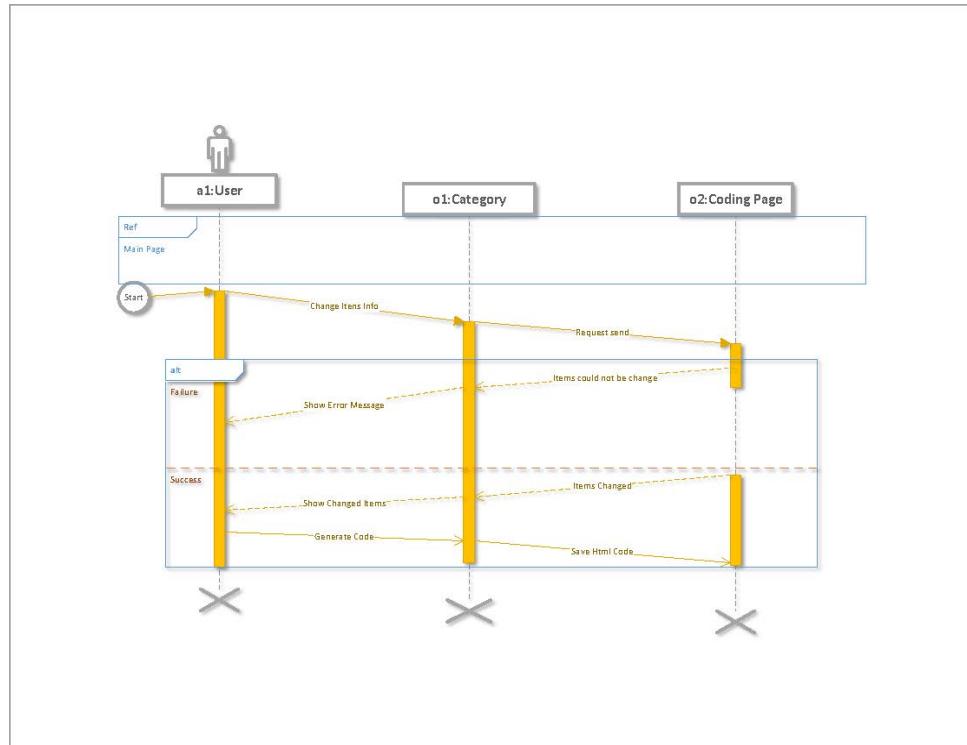


Figure 2.25: Sequence Diagram: Category of E-commerce a (User)

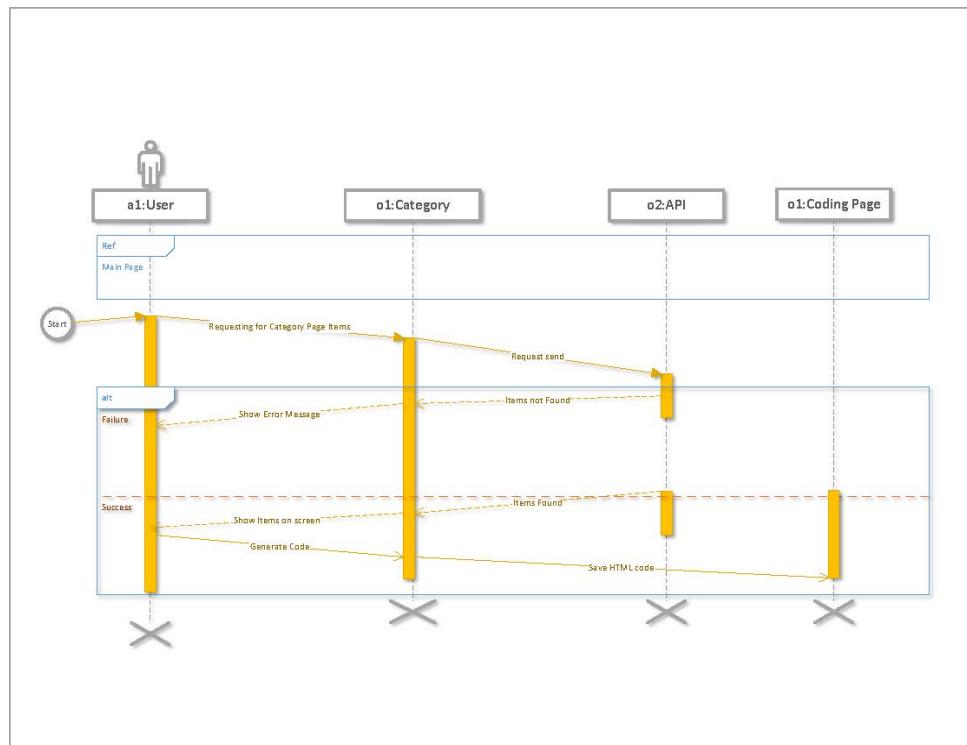


Figure 2.26: Sequence Diagram: Category of E-commerce b (User)

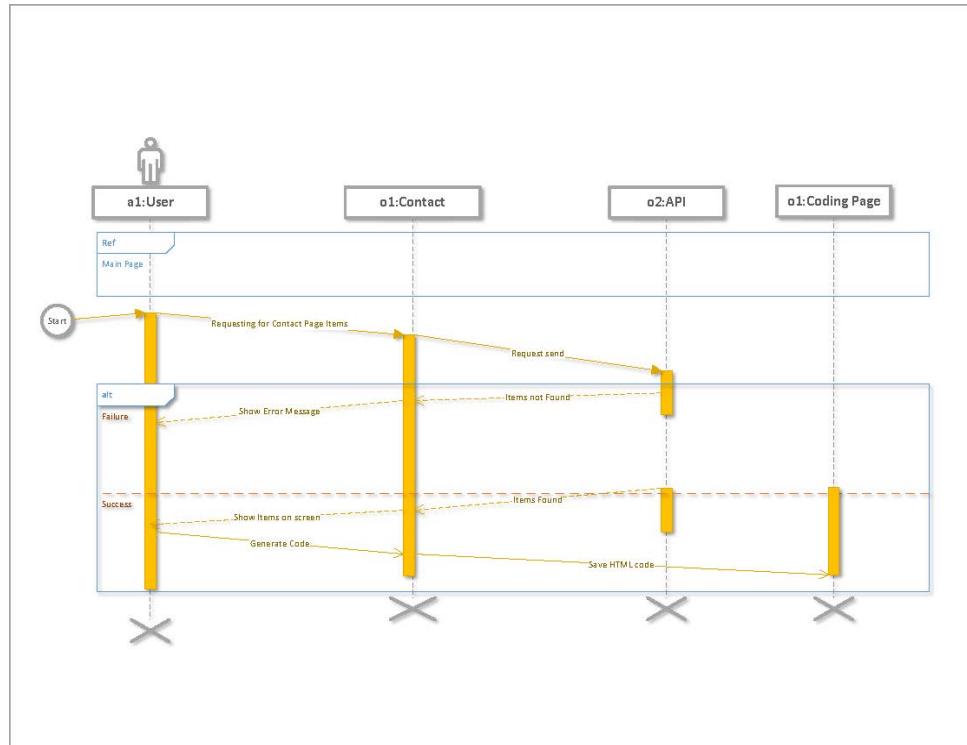


Figure 2.27: Sequence Diagram: Contact of E-commerce, Blogs and Portfolio a (User)

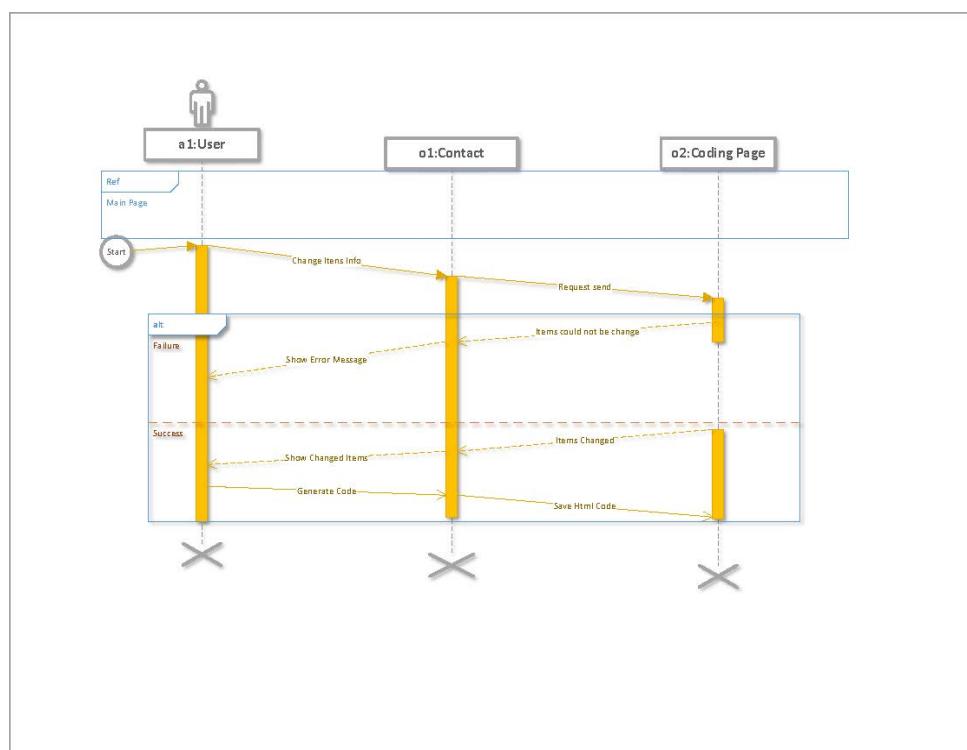


Figure 2.28: Sequence Diagram: Contact of E-commerce, Blogs and Portfolio b (User)

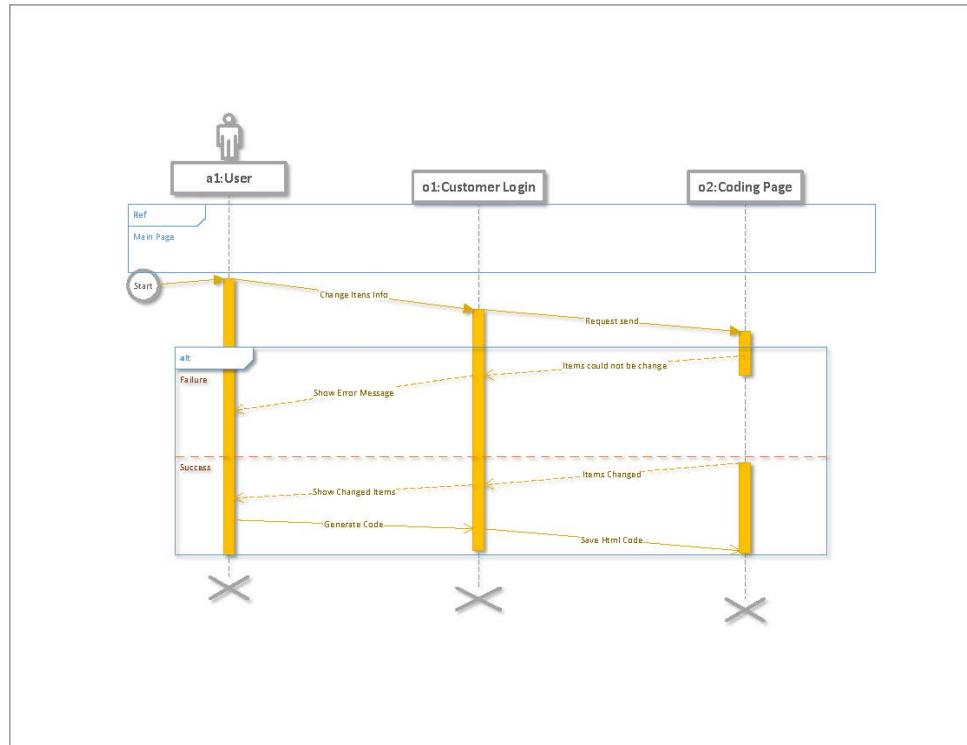


Figure 2.29: Sequence Diagram: Customer login of E-commerce a (User)

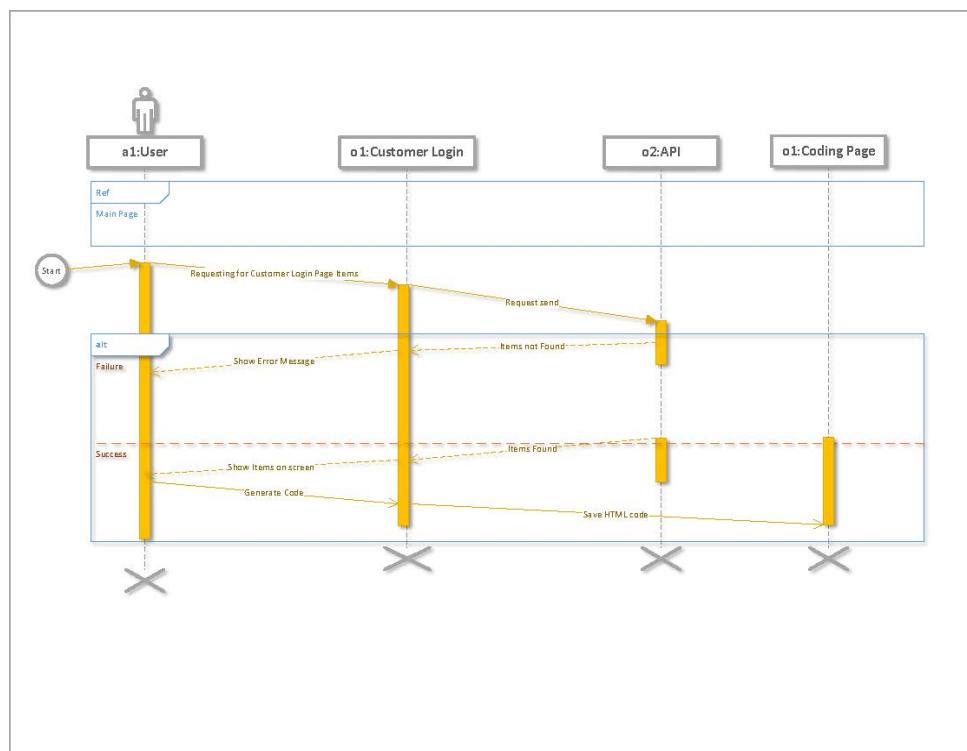


Figure 2.30: Sequence Diagram: Customer Login of E-commerce b (User)

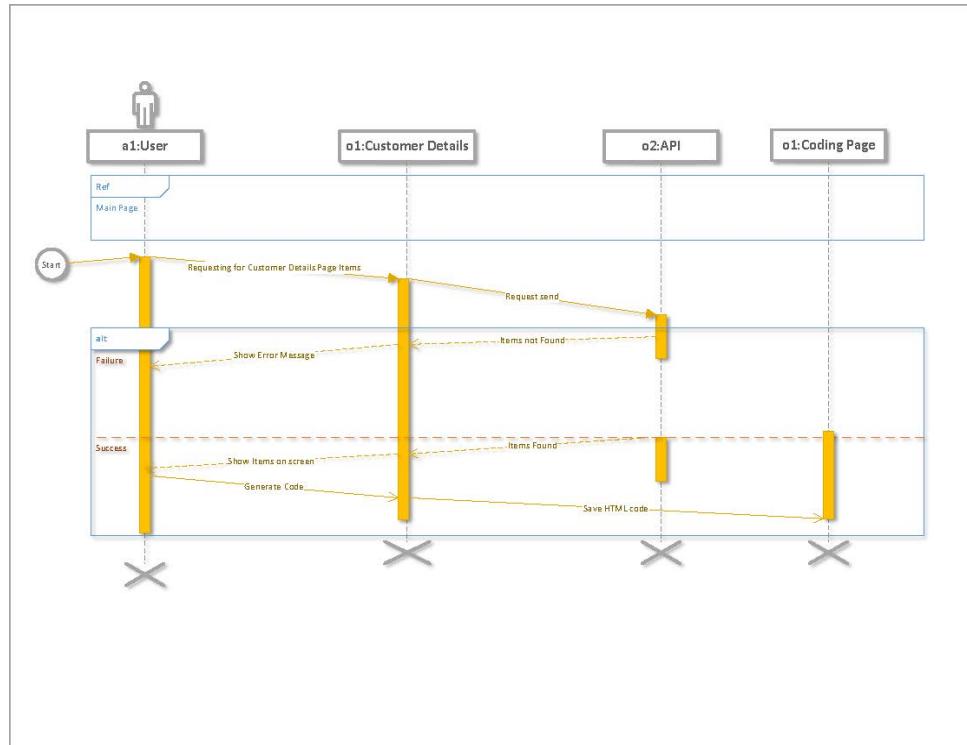


Figure 2.31: Sequence Diagram: Customer Details of E-commerce a (User)

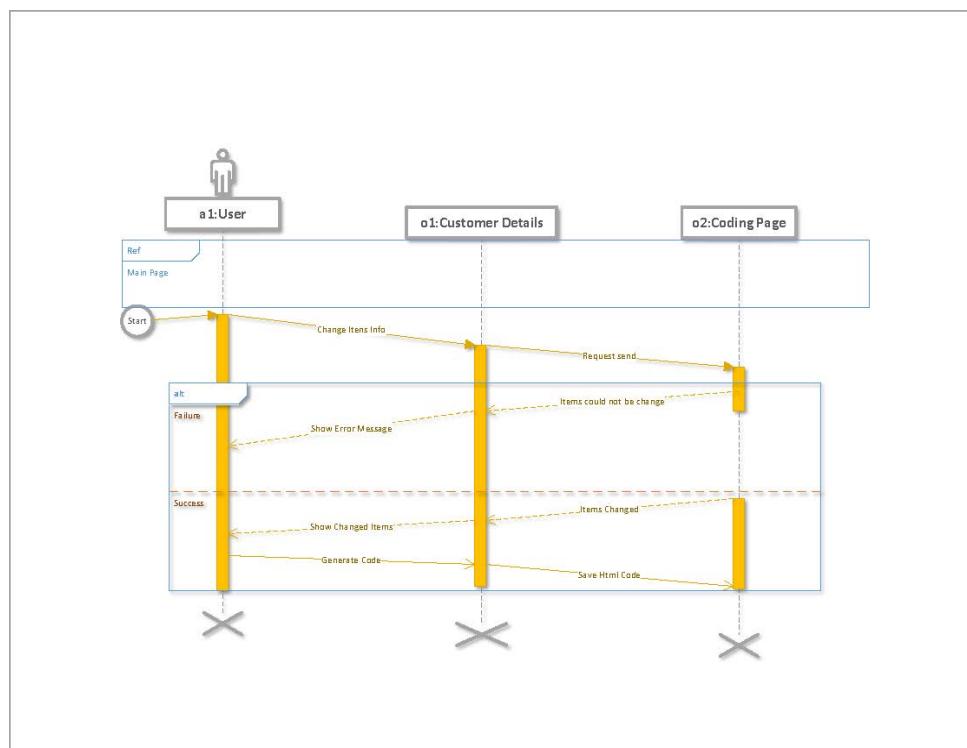


Figure 2.32: Sequence Diagram: Customer Details of E-commerce b (User)

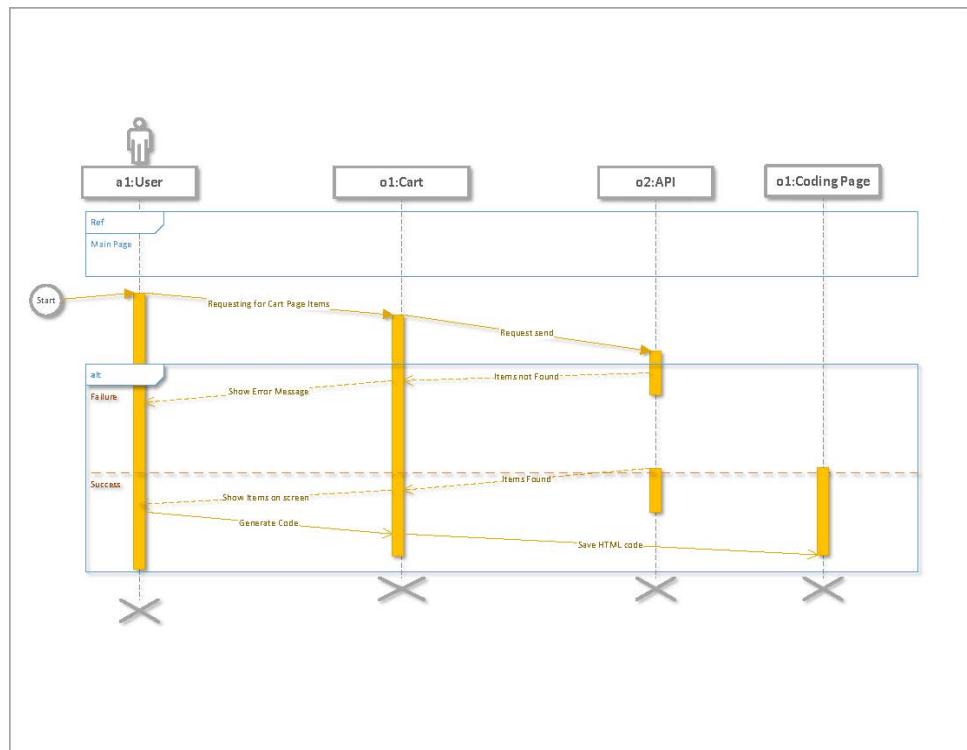


Figure 2.33: Sequence Diagram: Customer Details of E-commerce a (User)

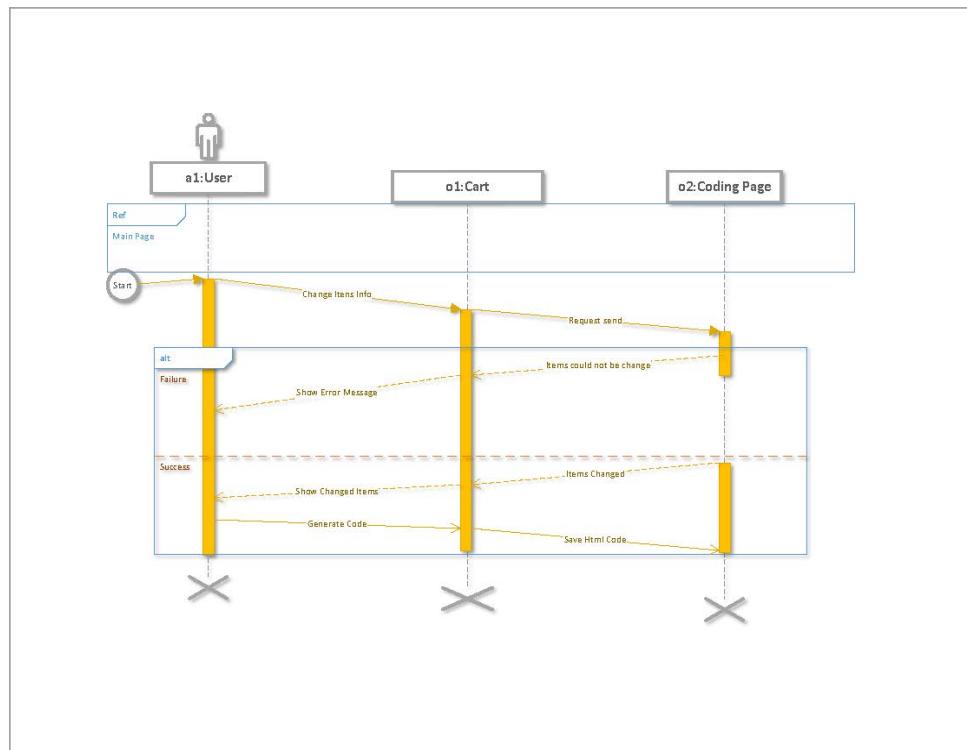


Figure 2.34: Sequence Diagram: Customer Details of E-commerce b (User)

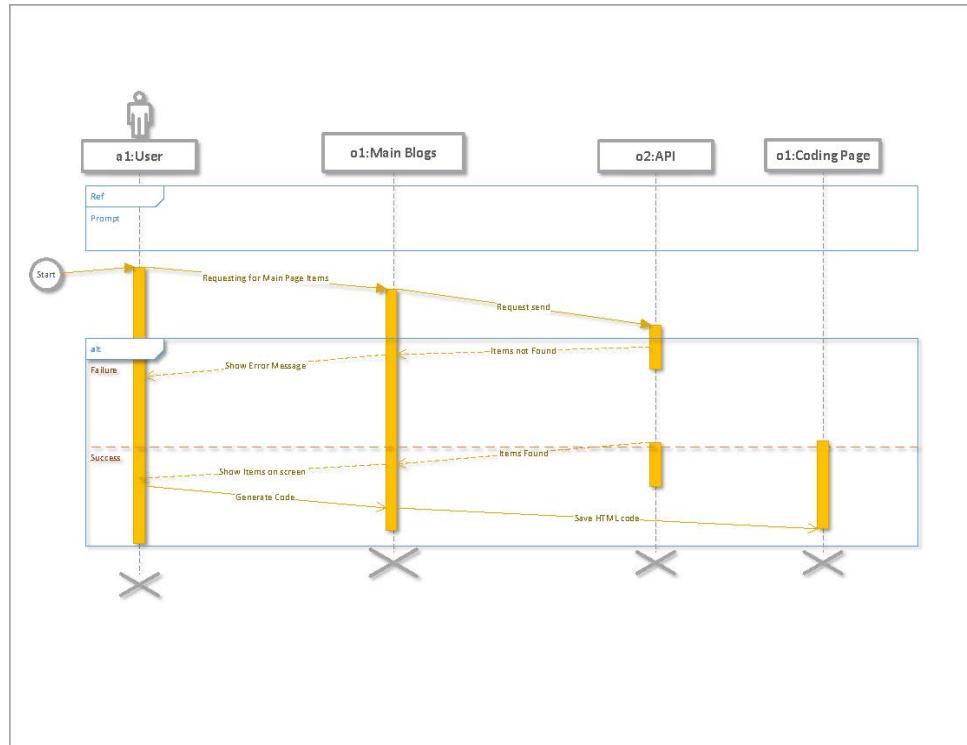


Figure 2.35: Sequence Diagram: Main of Blogs a (User)

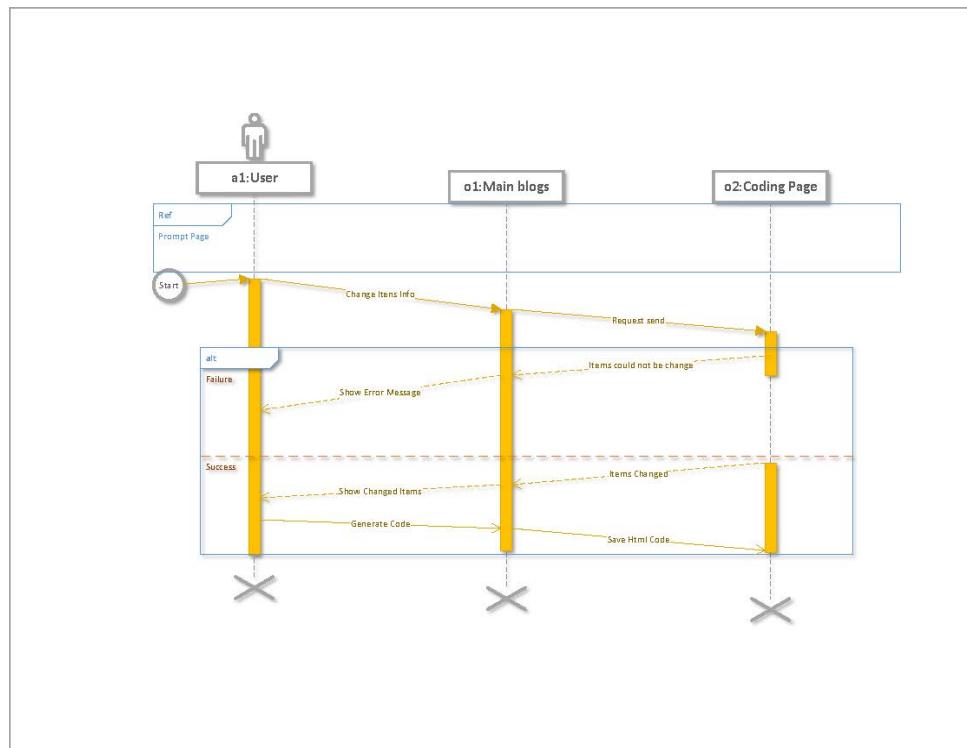


Figure 2.36: Sequence Diagram: Main of Blogs b (User)

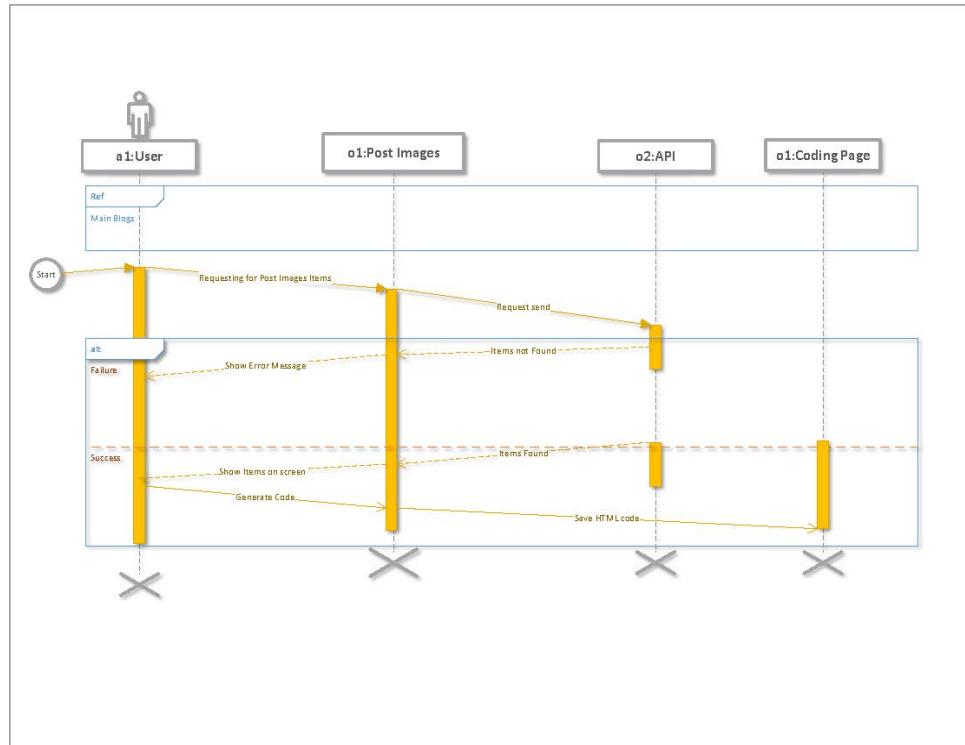


Figure 2.37: Sequence Diagram: Post Images of Blogs a (User)

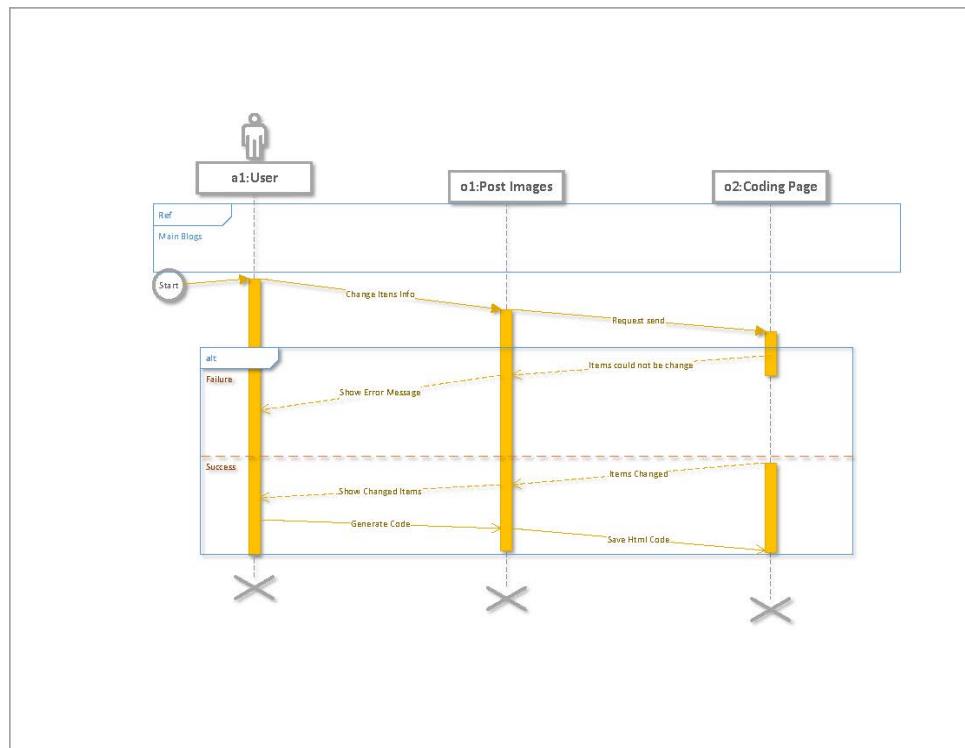


Figure 2.38: Sequence Diagram: Post Images of Blogs b (User)

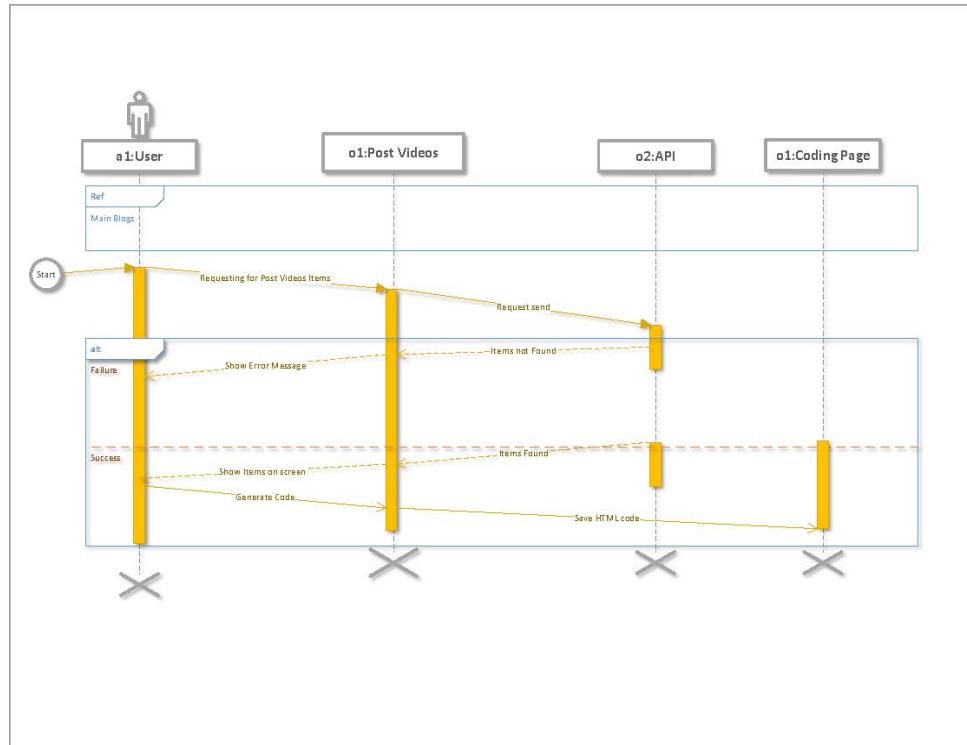


Figure 2.39: Sequence Diagram: Post Videos of Blogs a (User)

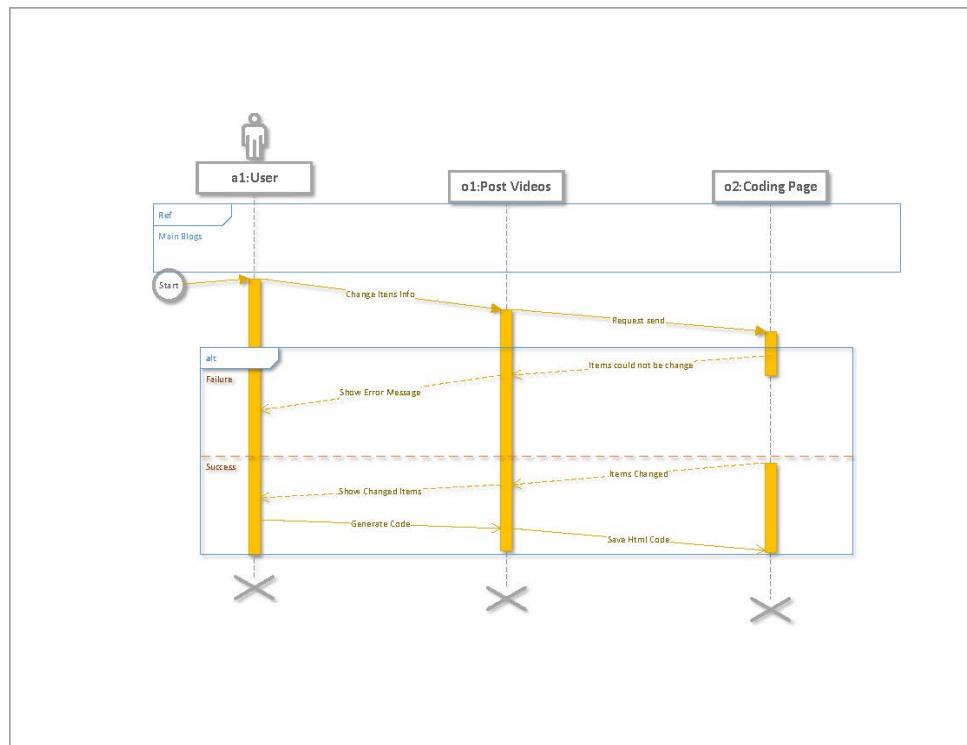


Figure 2.40: Sequence Diagram: Post Videos of Blogs b (User)

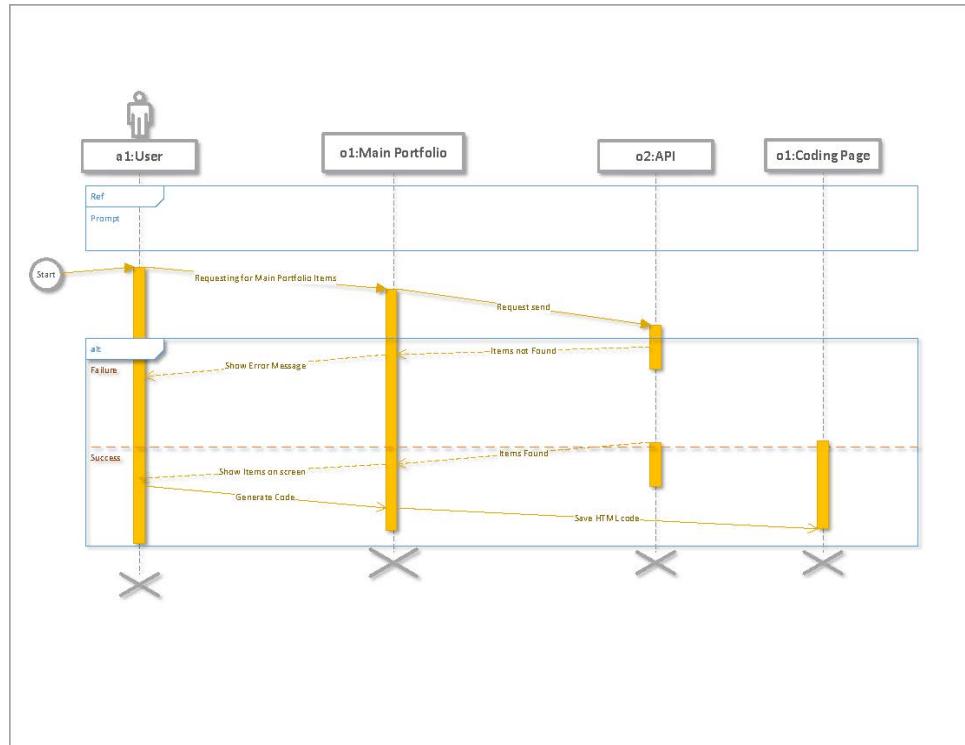


Figure 2.41: Sequence Diagram: Main of Portfolio a (User)

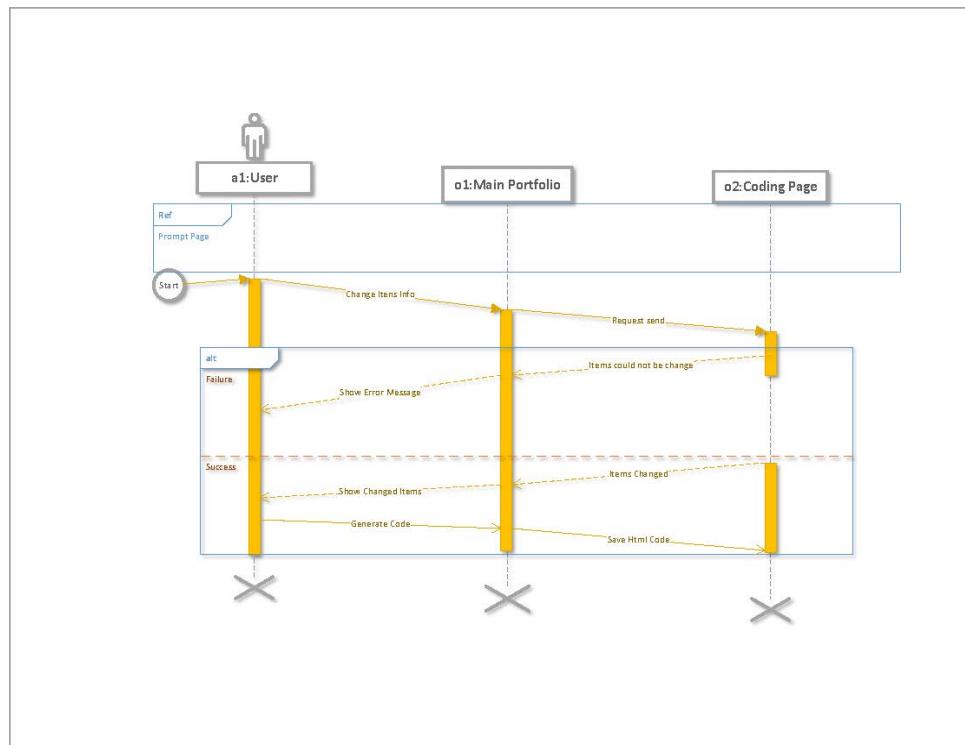


Figure 2.42: Sequence Diagram: Main of Portfolio b (User)

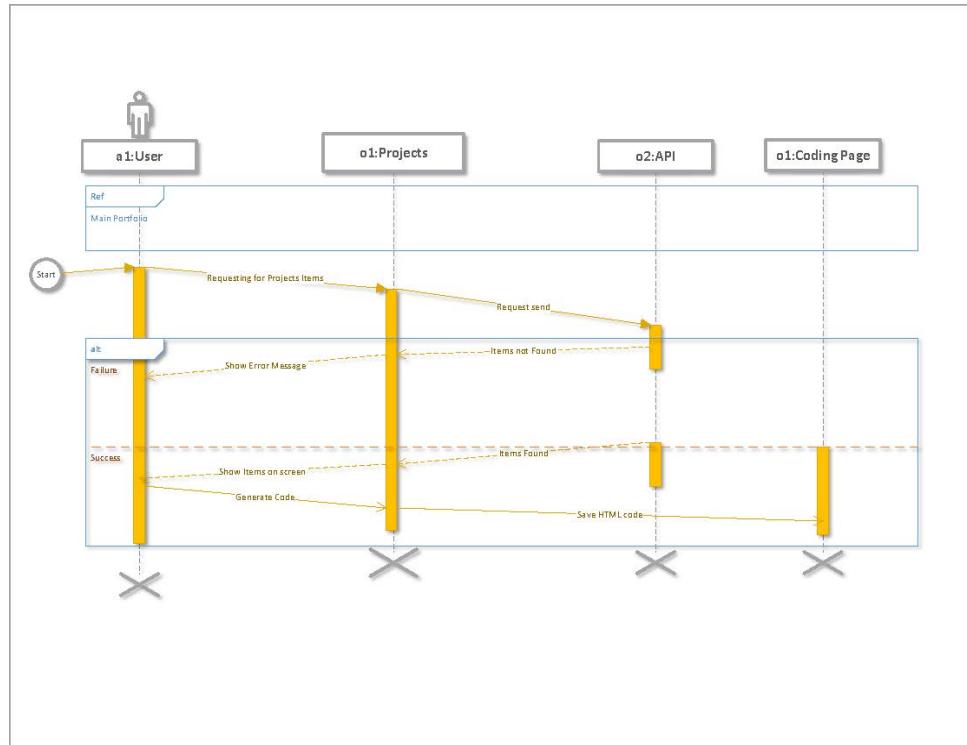


Figure 2.43: Sequence Diagram: Projects of Portfolio a (User)

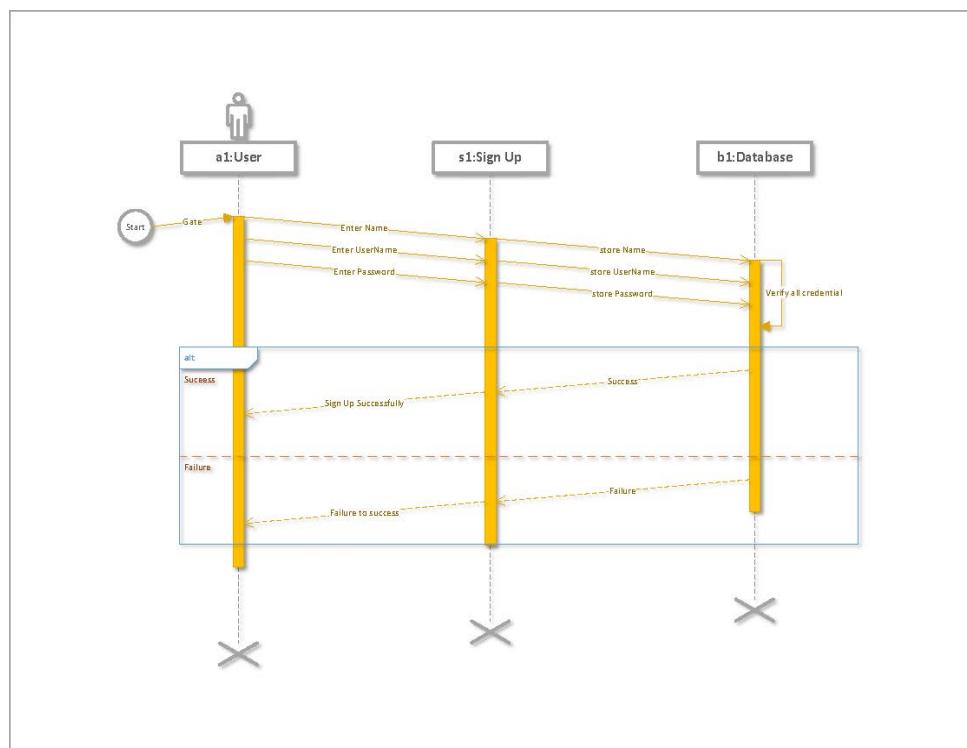


Figure 2.44: Sequence Diagram: SignUp (User)

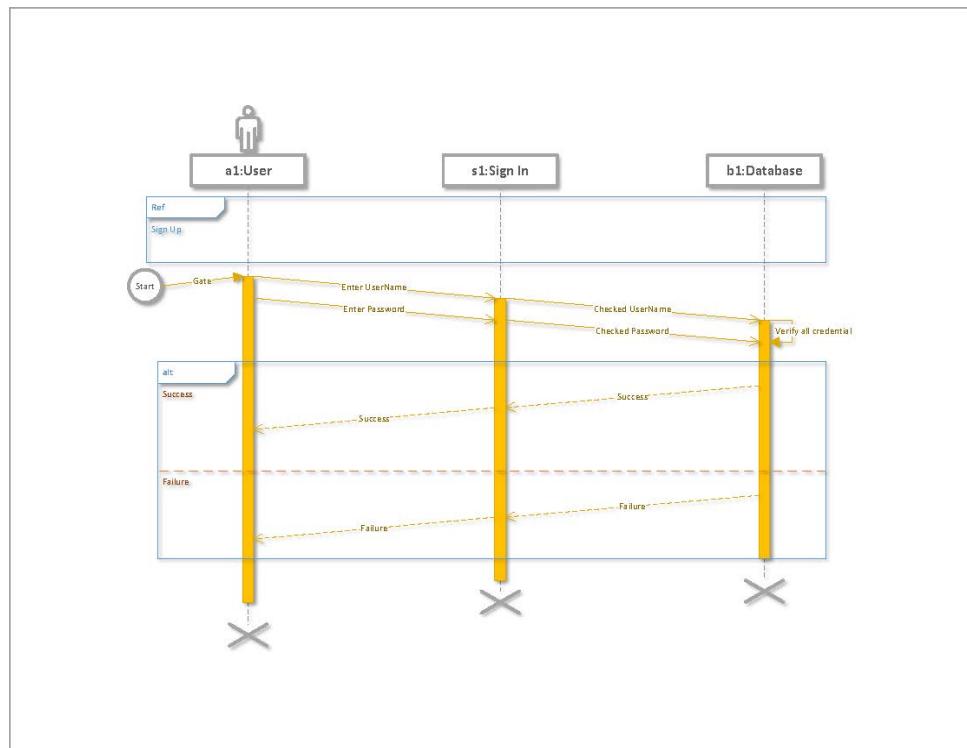


Figure 2.45: Sequence Diagram: SignIn (User)

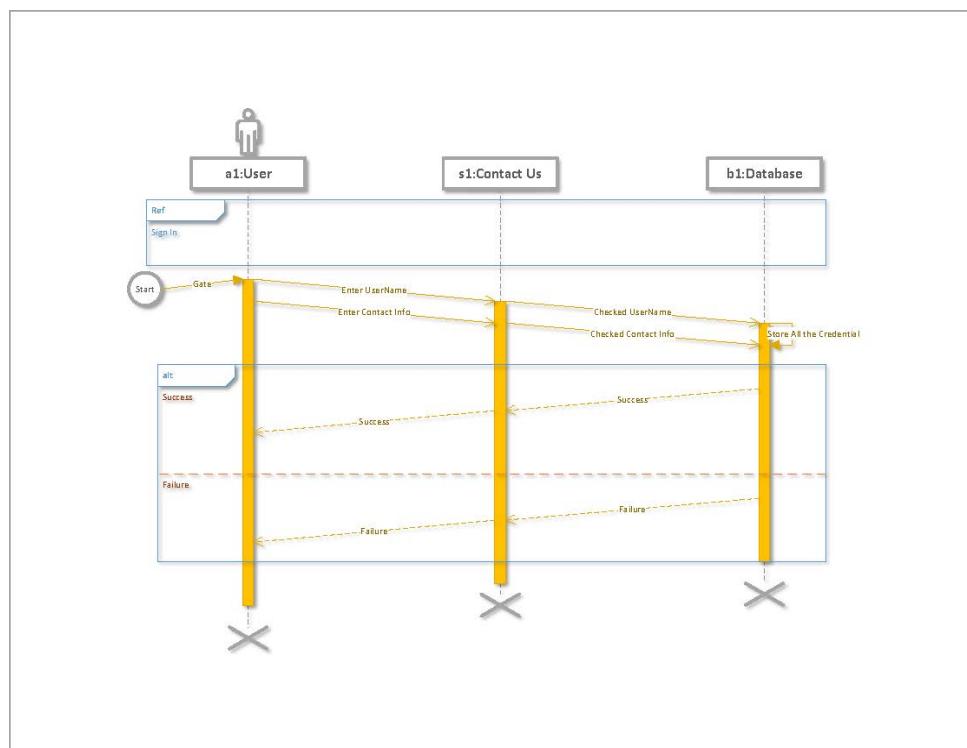


Figure 2.46: Sequence Diagram: Contact Us (User)

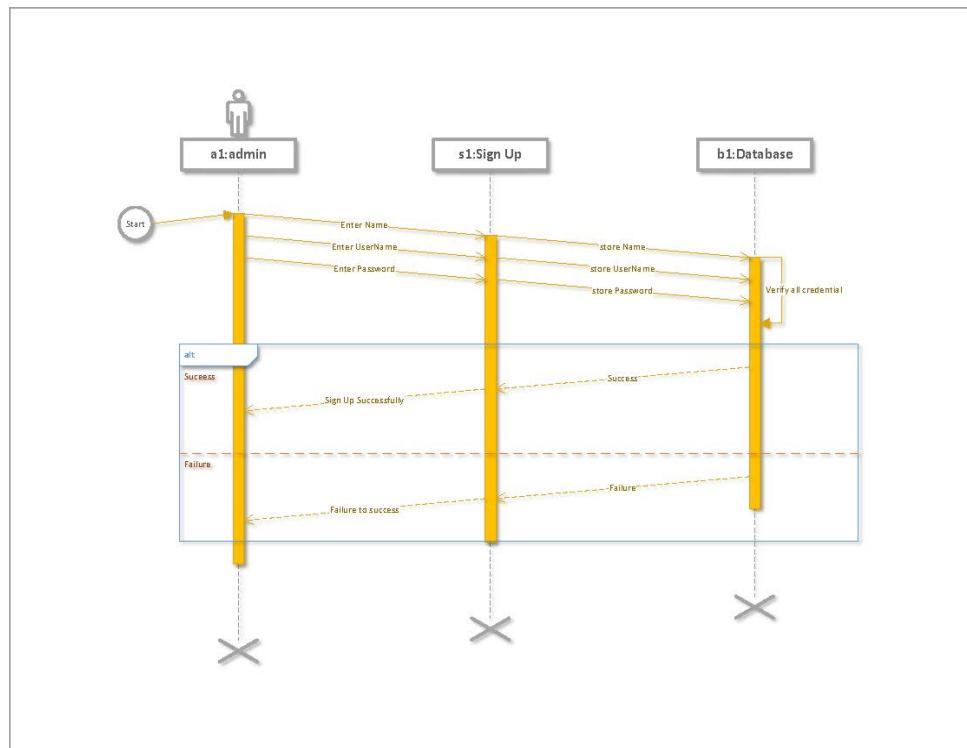


Figure 2.47: Sequence Diagram: SignUp (Admin)

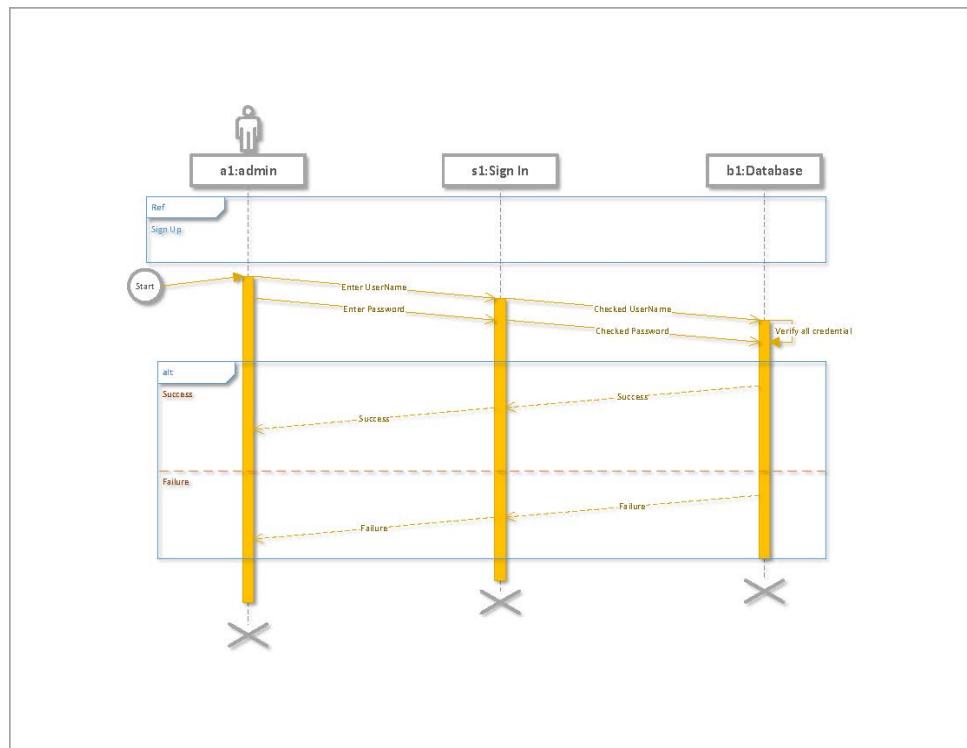


Figure 2.48: Sequence Diagram: SignIn (Admin)

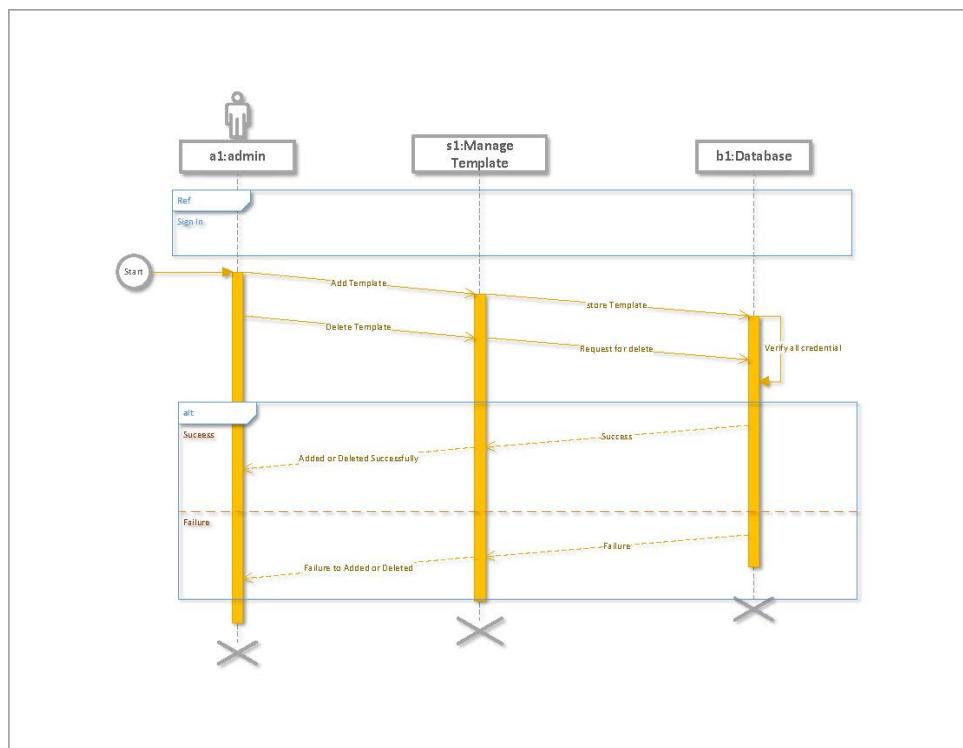


Figure 2.49: Sequence Diagram: Manage Template (Admin)

### 2.2.4 Collaboration Diagram

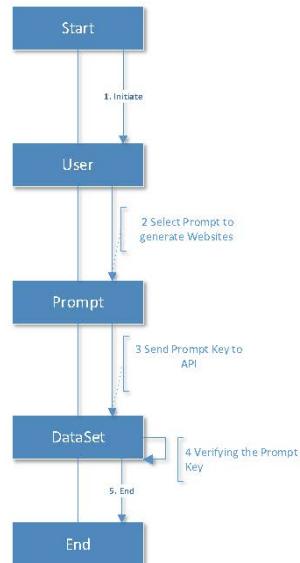


Figure 2.50: Collaboration Diagram: Prompt (User)

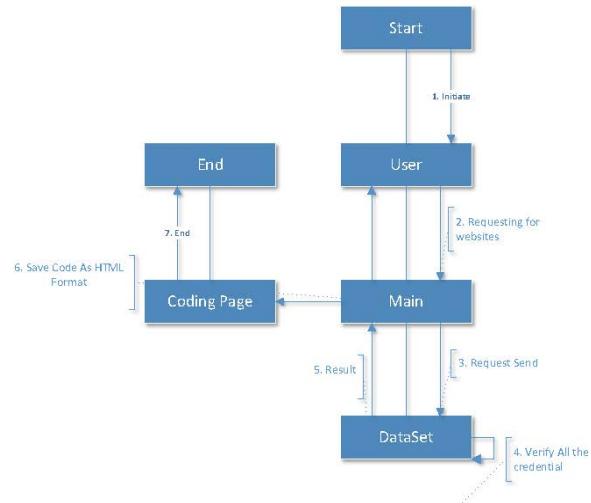


Figure 2.51: Collaboration Diagram: Main of E commerce,Blogs and Portfolio a (User)

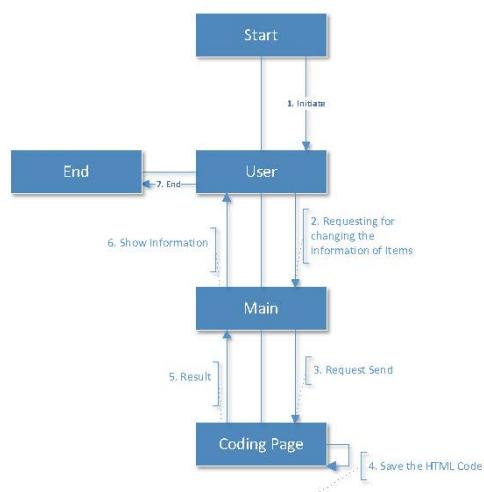


Figure 2.52: Collaboration Diagram: Main of E commerce,Blogs and Portfolio b (User)

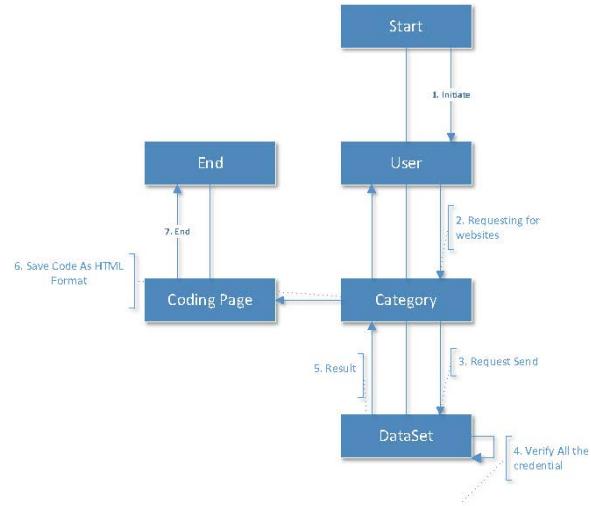


Figure 2.53: Collaboration Diagram: Category of E commerce,Blogs and Portfolio a (User)

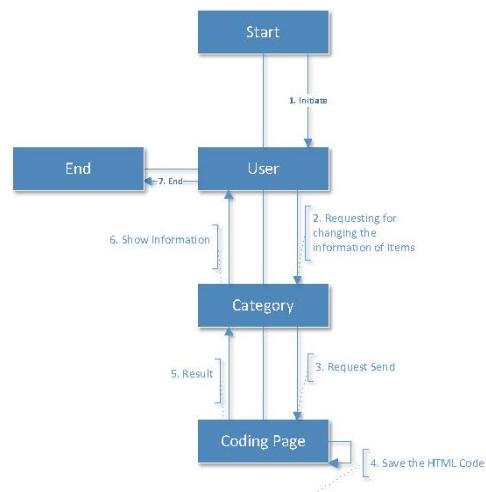


Figure 2.54: Collaboration Diagram: Category of E commerce,Blogs and Portfolio b (User)

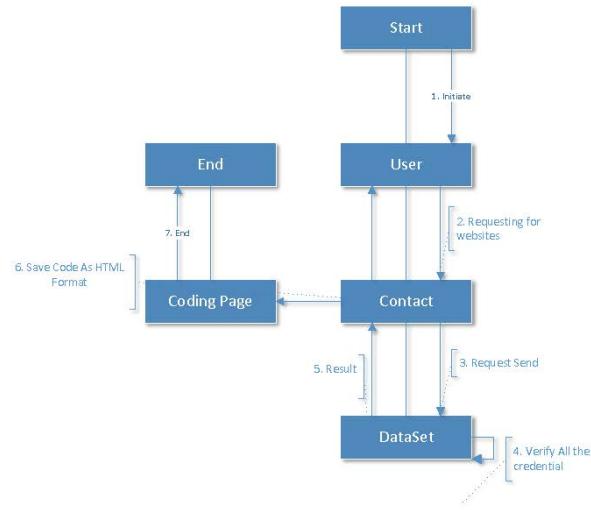


Figure 2.55: Collaboration Diagram: Contact of E commerce,Blogs and Portfolio a (User)

Figure 2.56:

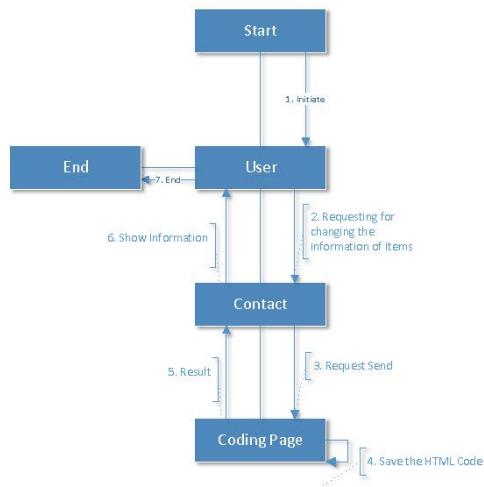


Figure 2.57: Collaboration Diagram: Contact of E commerce,Blogs and Portfolio b (User)

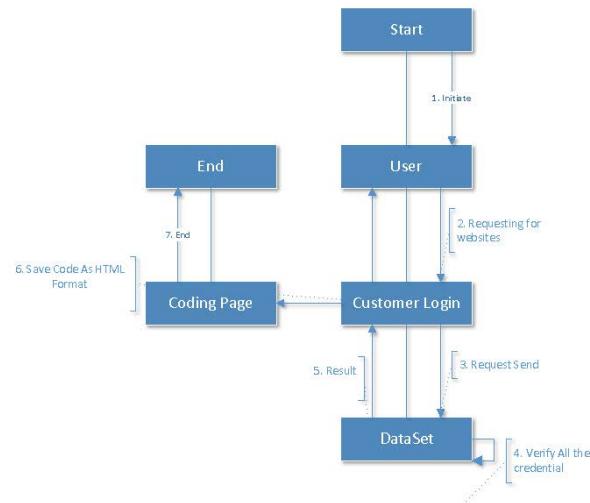


Figure 2.58: Collaboration Diagram: Customer login of E commerce a (User)

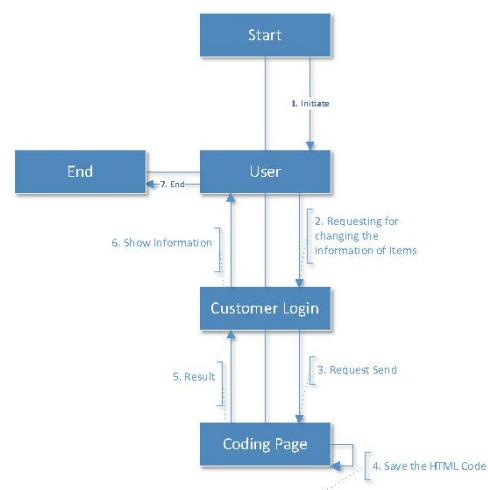


Figure 2.59: Collaboration Diagram: Customer login of E commerce a (User)

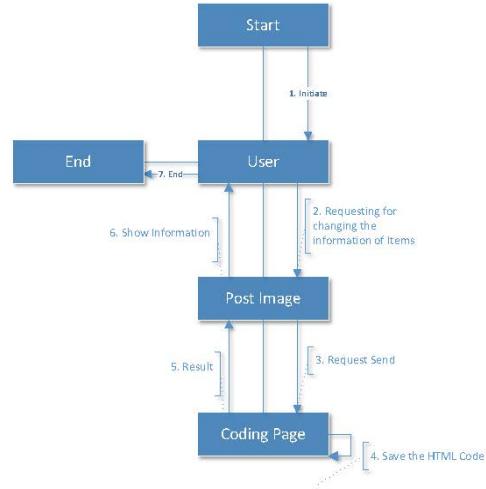


Figure 2.60: Collaboration Diagram: Post Image of E Blogs a (User)

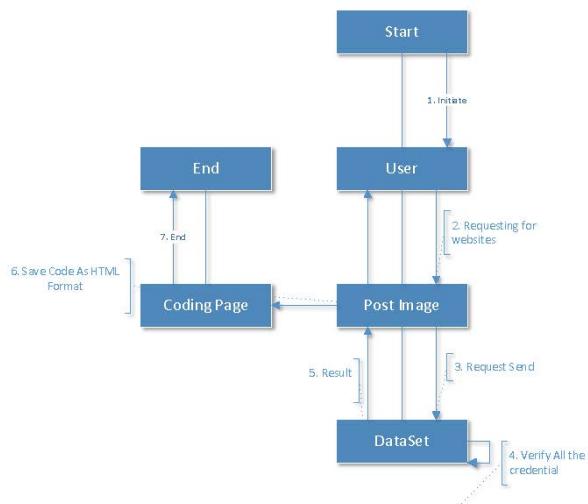


Figure 2.61: Collaboration Diagram: Post Image of Blogs b (User)

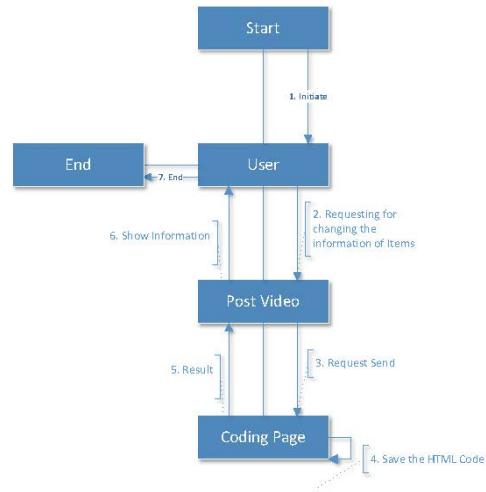


Figure 2.62: Collaboration Diagram: Post Videos of Blogs a (User)

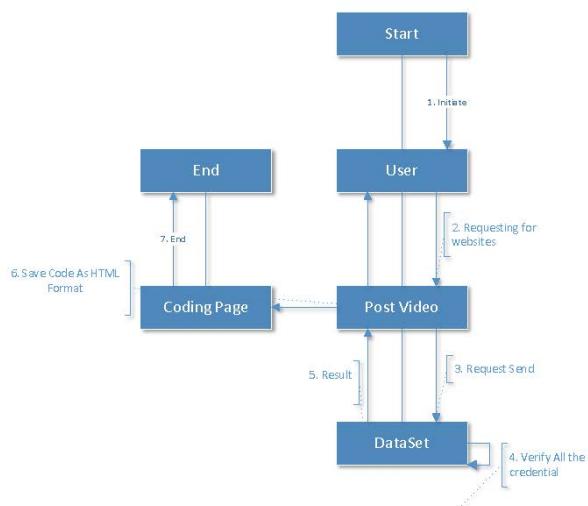


Figure 2.63: Collaboration Diagram: Post Videos of Blogs b (User)

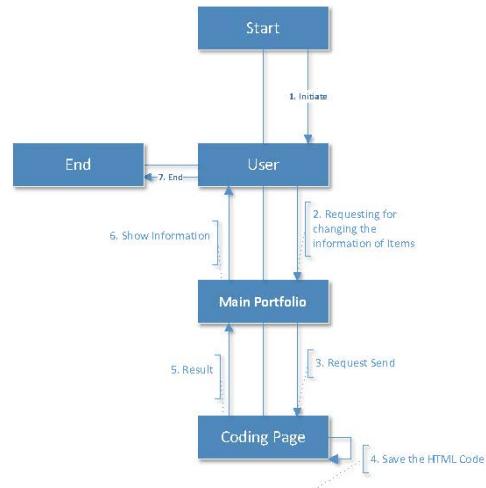


Figure 2.64: Deployment Diagram

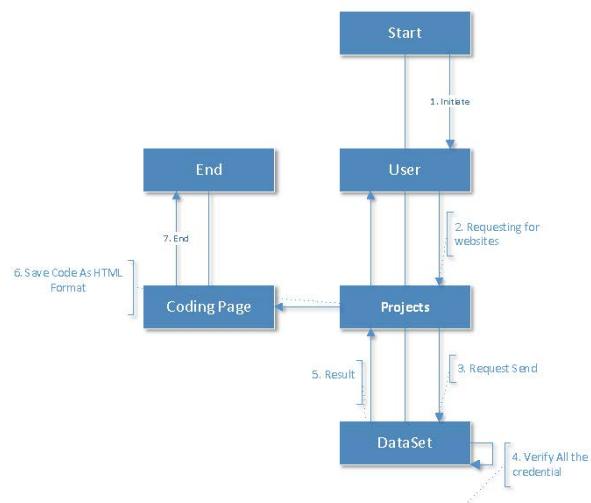


Figure 2.65: Collaboration Diagram: Projects of Portfolio a (User)

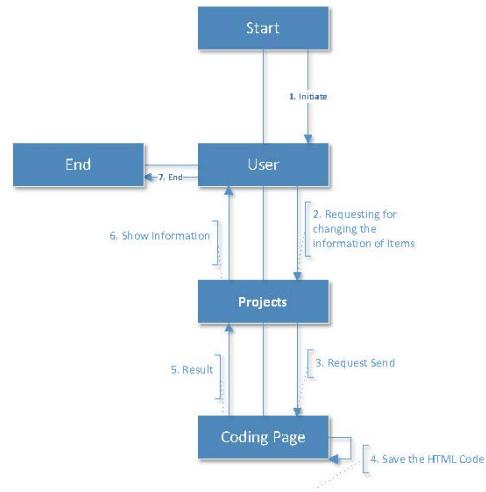


Figure 2.66: Collaboration Diagram: Projects of Portfolio b (User)

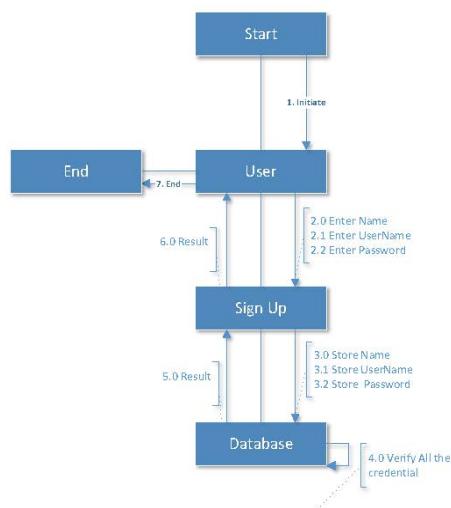


Figure 2.67: Collaboration Diagram: Sign Up (User)

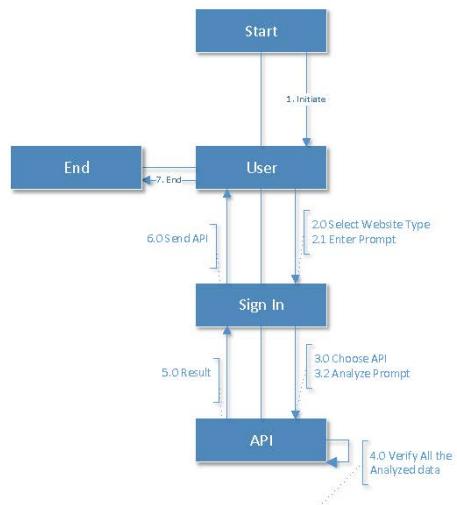


Figure 2.68: Collaboration Diagram: Sign In (User )

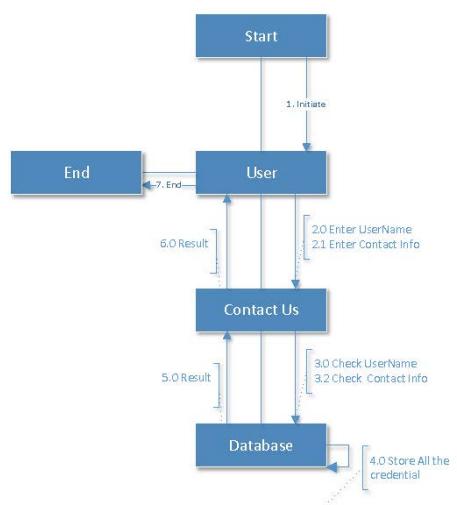


Figure 2.69: Collaboration Diagram: Contact Us (User )

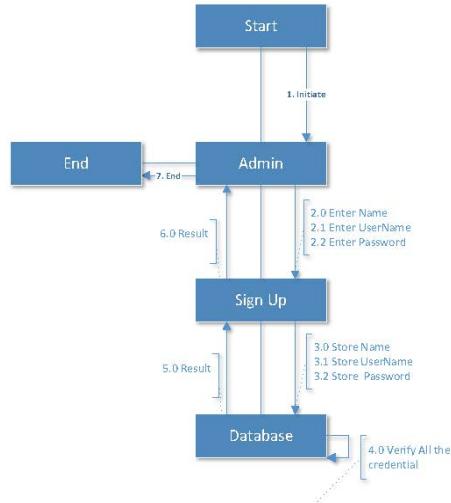


Figure 2.70: Collaboration Diagram: Sign Up (Admin)

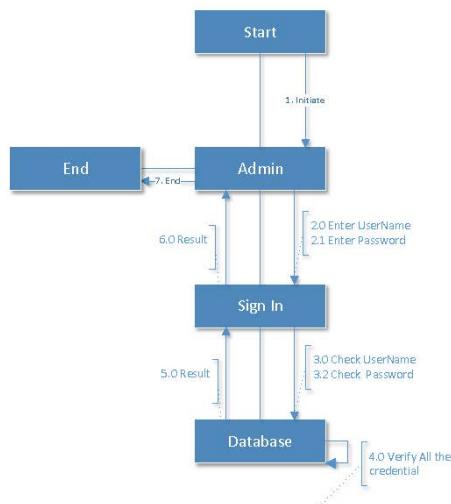


Figure 2.71: Collaboration Diagram: Sign In (Admin)

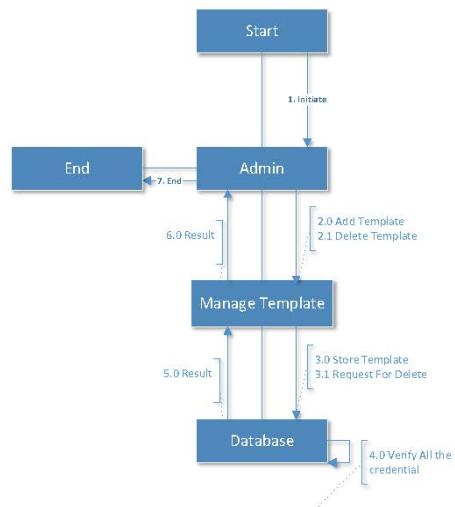


Figure 2.72: Collaboration Diagram: Manage Templates (Admin)

## 2.3 SYSTEM STRUCTURE DESIGN

### 2.3.1 Class Diagram

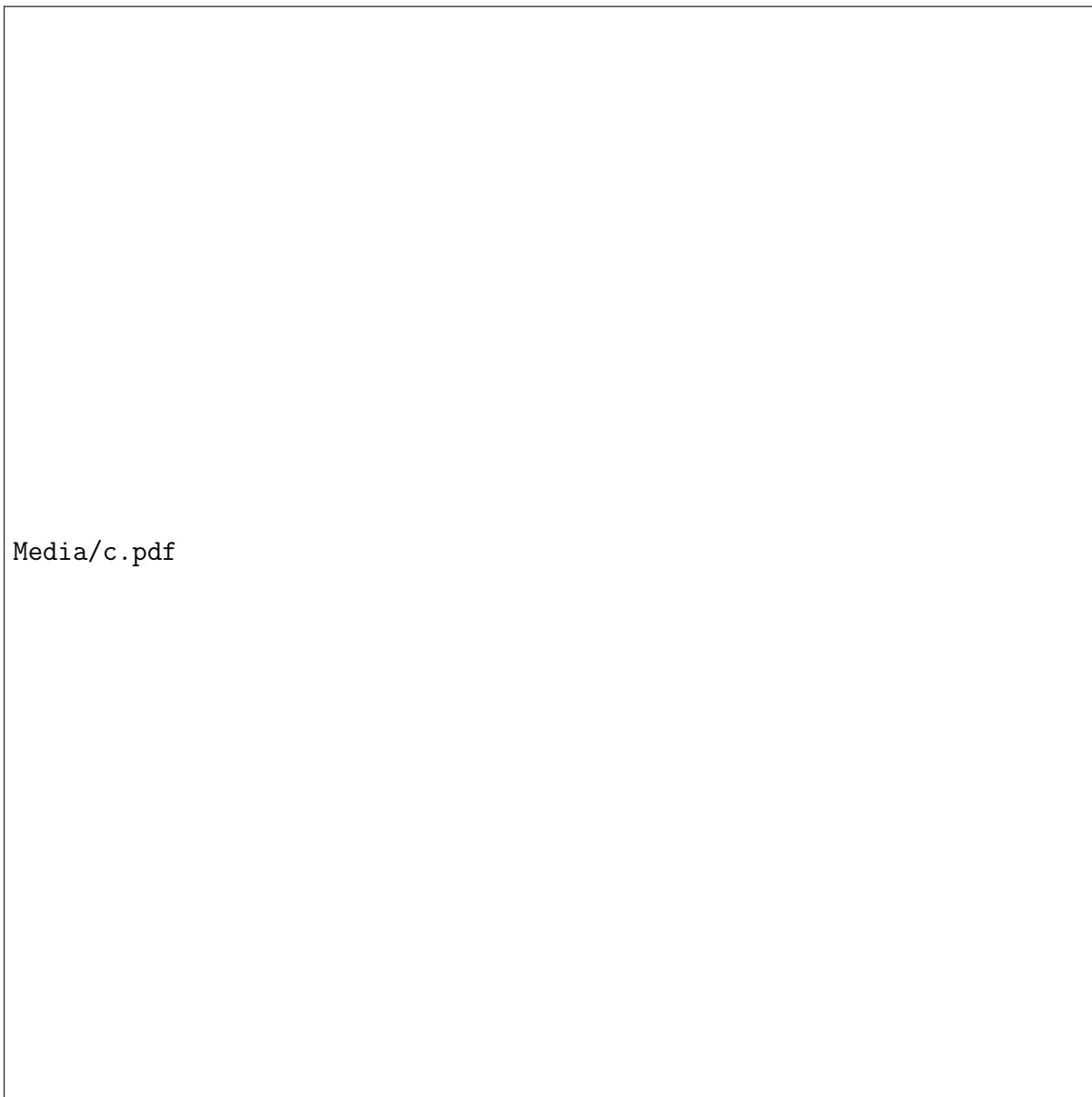


Figure 2.73: Class Diagram

### 2.3.2 Component Diagram

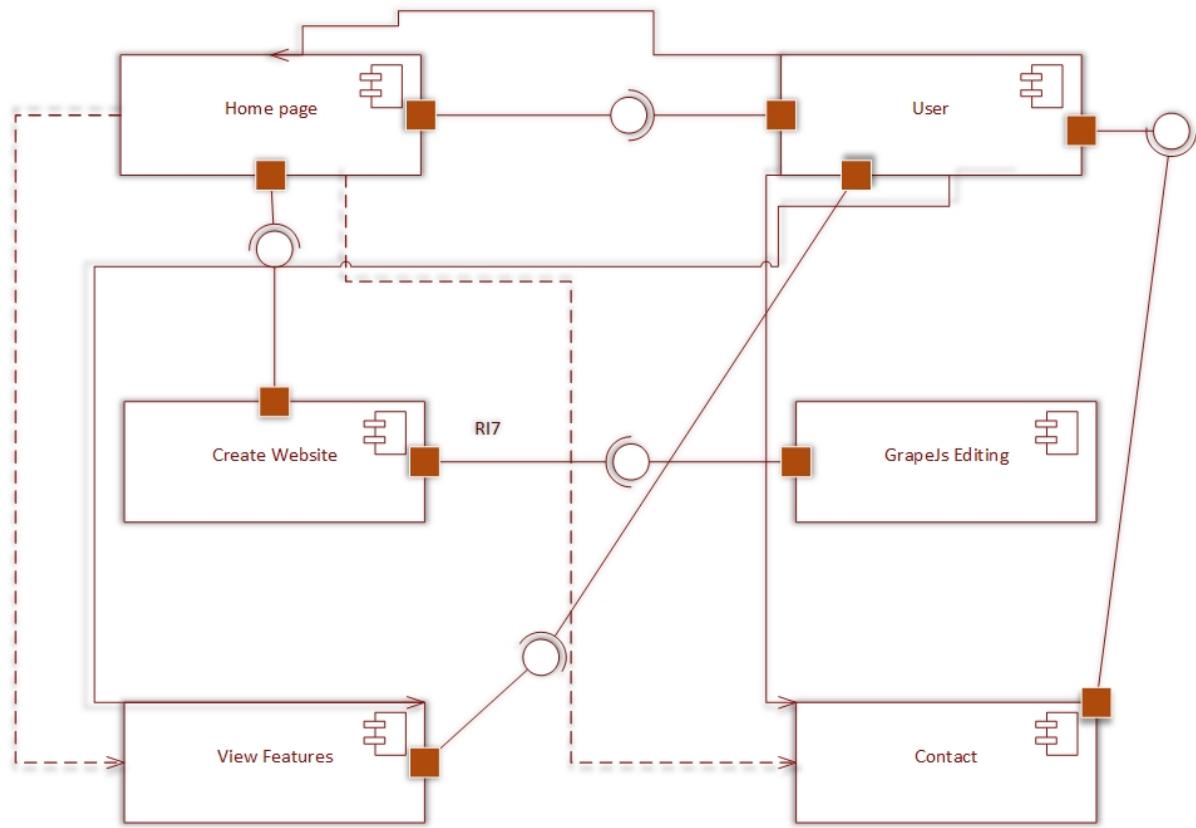


Figure 2.74: Component Diagram

### 2.3.3 Deployment Diagram

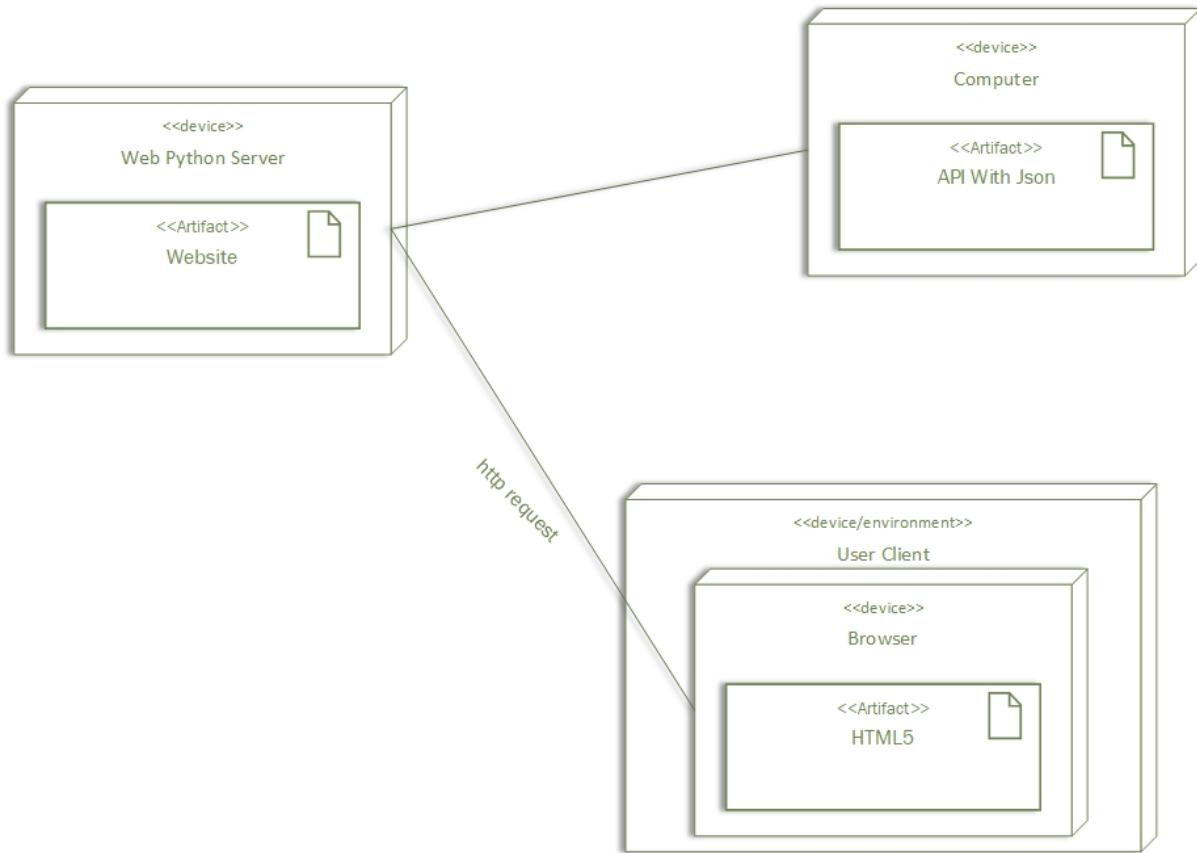


Figure 2.75: Deployment Diagram

## 2.4 DATABASE DESIGN

### 2.4.1 ER Diagram

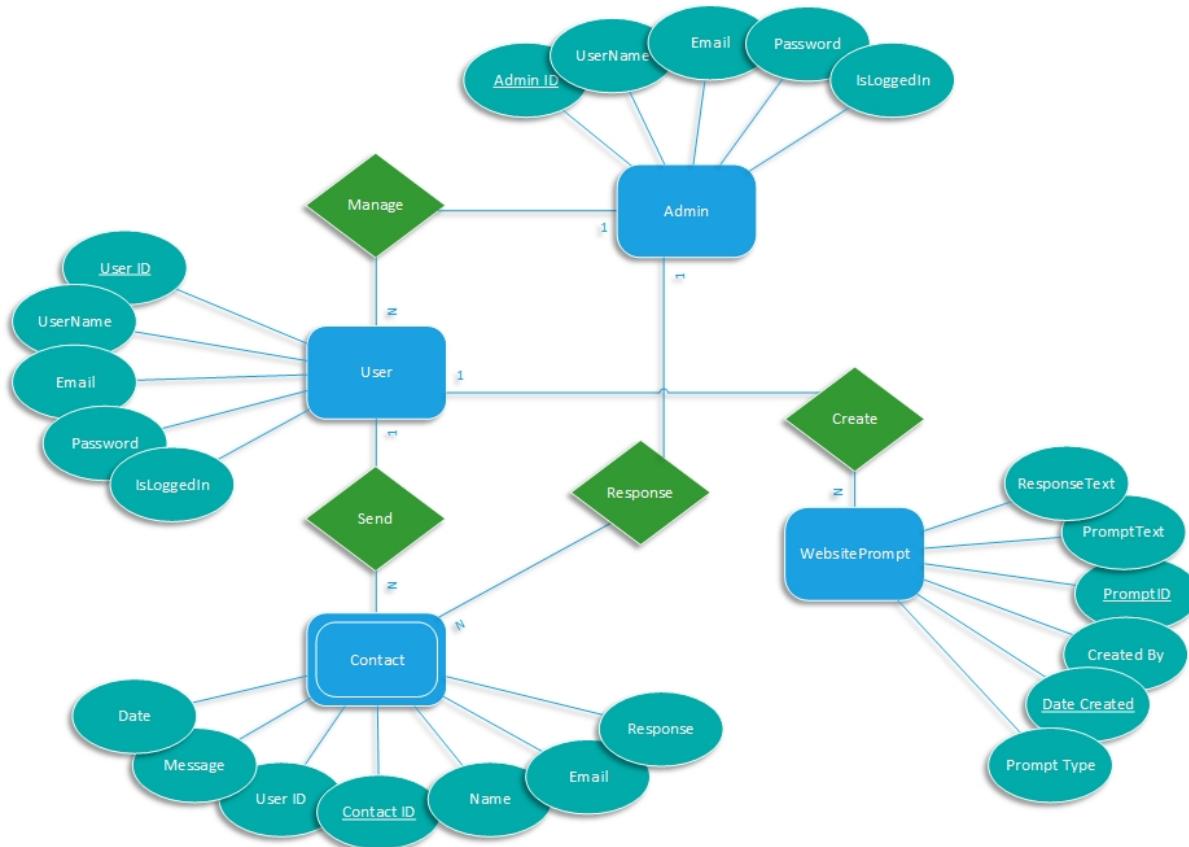


Figure 2.76: ER Diagram

## 2.5 REFERENCES

1. Wix, “Wix.” Accessed: Mar. 29, 2024. [Online]. Available: <https://wix.com/ai-assistant?flow=next>
2. Jimdo, “Jimdo Builder.” Accessed: Mar. 29, 2024. [Online]. Available: <https://cms.jimdo.com/cms/>
3. Unbounce, “Unbounce Web Builder,” [Online]. Available: <https://app.unbounce.com>
4. C. WP, “CodeWP,” [Online]. Available: <https://app.codewp.ai/dashboard/packages>
5. Zyro, “Zyro AI Builder.” Accessed: Mar. 29, 2024. [Online]. Available: <https://zyro.com/>
6. Grid, “Grid AI Web Builder.” Accessed: Mar. 29, 2024. [Online]. Available: <https://use.grid.studio/editor/c5VvkH50S1Yy5vsiemg9>
7. TypeForm, “Type Form Webflow.” Accessed: Mar. 29, 2024. [Online]. Available: <https://8ue430n1k59.typeform.com/to/IA2SnQRf>