



UNIVERSITY OF
WOLVERHAMPTON



Artifact Design and Test Plan

Name: Krishma Khadgi

Student Number: 2329461

Course: Bachelors (Hons) in Computer Science

University email: k.khadgi@wlv.ac.uk

Supervisor: Mohit Acharya

Date: February 2, 2025

Table of Contents

User Registration and Authentication	1
Software Requirements Specification	1
Use case diagram.....	3
Sequence diagram.....	4
Testing	5
Skills Exchange System	8
Software Requirements Specification	8
Use case diagram.....	9
Sequence diagram.....	10
Testing	11
Time Banking System	13
Software Requirements Specification	13
Use case diagram.....	14
Sequence diagram.....	15
Testing	16
Ratings and Review Management System.....	18
Software Requirements Specification	18
Use case diagram.....	19
Sequence diagram.....	20
Testing	21
Achievement Badges Management System.....	23
Software Requirements Specification	23
Use case diagram.....	24
Sequence diagram.....	25
Testing	26
Discount Management System	28
Software Requirements Specification	28
Use case diagram.....	29
Sequence diagram.....	30
Testing	31

Chat System.....	33
Software Requirements Specification	33
Use case diagram.....	34
Sequence diagram.....	35
Testing	36
MongoDB Schema Design Diagram.....	38
Gantt	39
Wireframes.....	39

User Registration and Authentication

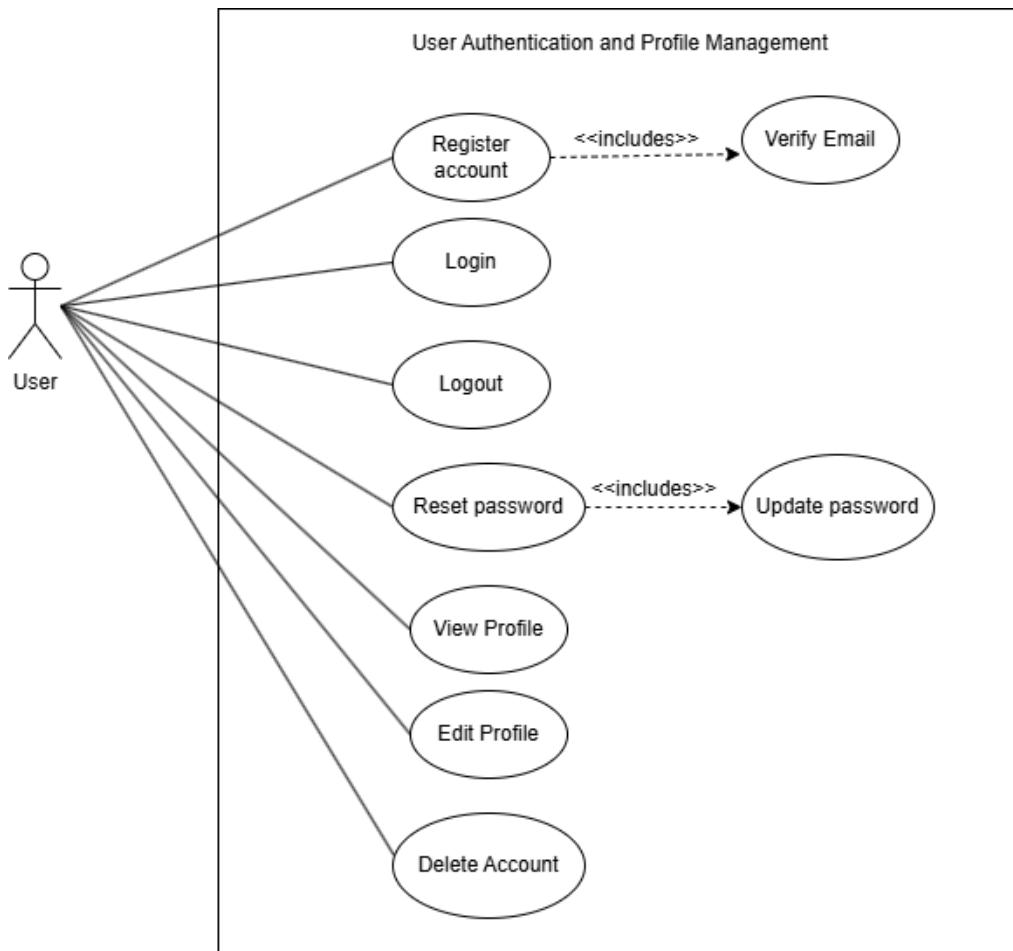
Software Requirements Specification

Req. Code	Req. Description	Use Case
HRF-UR-1.0	The platform shall allow new users to create an account with essential credentials.	User Registration
HRF-UR-1.1	Each user account must have a unique email address.	User Registration
HRF-UR-1.2	Passwords must adhere to security standards.	User Registration
HRF-UR-1.3	The platform should require users to confirm their password during registration.	User Registration
HRF-UR-1.4	The system must validate all the required registration fields.	User Registration
HRF-UR-1.5	User credentials should be stored in a database securely.	User Registration
HRF-UR-1.6	A verification email should be sent upon registration to confirm account ownership.	User Registration
HRF-UR-1.7	Users shall receive real-time error messages for invalid input during registration.	User Registration
HRF-UR-1.8	User login should be possible using their registered email and password.	User Login
HRF-UR-1.9	The platform should verify login credentials against stored data.	User Login

HRF-UR-1.10	Secure authentication methods like JSON Web token should be used to prevent unauthorized access.	User Login
HRF-UR-1.11	Important data like password must be stored after encryption.	User Login
HRF-UR-1.12	Upon successful login, the system shall initiate a user session.	User Login
HRF-UR-1.13	Users shall be redirected to their dashboard after logging in.	User Login
HRF-UR-1.14	The platform should allow users to log out securely.	User Logout
HRF-UR-1.15	User sessions shall be invalidated upon logout.	User Logout
HRF-UR-1.16	If login fails due to incorrect credentials, an appropriate error message shall be displayed.	User Login
HRF-UR-1.17	The system shall provide a password reset mechanism.	Password Reset
HRF-UR-1.18	User authentication and authorization mechanisms shall be designed to protect against security threats.	Security
HRF-UR-1.19	Passwords and authentication tokens shall never be stored in plaintext.	Security
HRF-UR-1.20	The platform should respond to user requests.	General

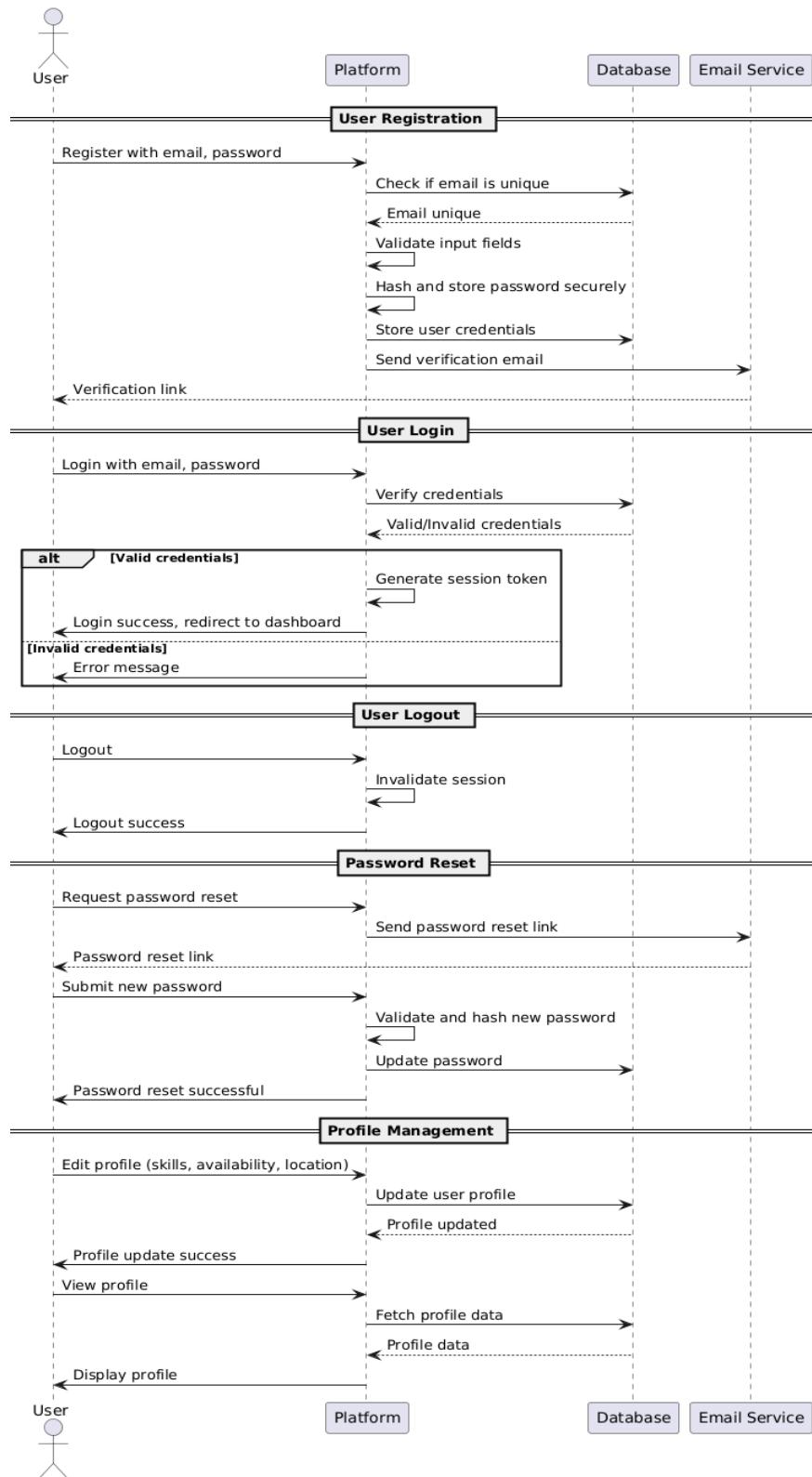
HRF-UR 1.21	The system shall provide visual feedback when processing user requests.	User Experience
HRF-UR 1.22	The platform should be fully responsive.	User Experience
HRF-UR 1.23	The system shall allow users to edit their profile information, including skills offered, availability, and location.	Profile Management
HRF-UR 1.24	The system shall display user profiles with relevant information (skills, availability, ratings, etc.).	Profile Management

Use case diagram



Use case diagram for User Authentication 1

Sequence diagram



Sequence diagram for User Authentication 1

Testing

Req. Code	Req. Description	Test ID	Test Case Description	Expected Result	Status
UM-F-1.0	The platform shall allow new users to create an account with essential credentials.	TC-001	Verify that a new user can successfully create an account with required credentials	User should be able to create an account successfully	Success
UM-F-1.1	Each user account must have a unique email address.	TC-002	Ensure that a duplicate email address cannot be used for registration	System should reject duplicate email addresses	Success
UM-F-1.2	Passwords must adhere to security standards.	TC-003	Validate password strength requirements (e.g. minimum length, special characters)	System should enforce password security rules	Success
UM-F-1.3	The platform should require users to confirm their password during registration.	TC-004	Check if users must re-enter and match their password before proceeding	Passwords must match for registration to succeed	Success
UM-F-1.4	The system must validate all the required registration fields.	TC-005	Verify that registration fails if required fields are missing	System should display appropriate error messages	Success
UM-F-1.5	User credentials should be stored in a database securely.	TC-006	Confirm that passwords are not stored in plaintext and use encryption	Passwords should be securely hashed	Success
UM-F-1.6	A verification email should be sent upon registration to	TC-007	Ensure that a verification email is sent	User should receive a verification email	Success

	confirm account ownership.		after successful registration		
UM-F-1.7	Users shall receive real-time error messages for invalid input during registration.	TC-008	Check if invalid inputs display error messages in real time	System should provide immediate feedback	Success
UM-F-1.8	User login should be possible using their registered email and password.	TC-009	Verify that users can log in with correct credentials	User should be able to log in successfully	Success
UM-F-1.9	The platform should verify login credentials against stored data.	TC-010	Ensure the system correctly validates login credentials	Invalid credentials should be rejected	Success
UM-F-1.10	Secure authentication methods like JSON Web Token should be used to prevent unauthorized access.	TC-011	Verify that JWT is issued upon successful login	JWT should be generated and used for authentication	Success
UM-NF-1.11	Important data like passwords must be stored after encryption.	TC-012	Confirm that sensitive data is encrypted in storage	Data should not be stored in plaintext	Success
UM-F-1.12	Upon successful login the system shall initiate a user session.	TC-013	Verify that a user session starts after login	System should create a session for authenticated users	Success
UM-F-1.13	Users shall be redirected to their dashboard after logging in.	TC-014	Check if users are redirected to their dashboard post-login	User should land on the dashboard	Success
UM-F-1.14	The platform should allow users to log out securely.	TC-015	Ensure that users can log out successfully	User should be logged out and redirected appropriately	Success

UM-F-1.15	User sessions shall be invalidated upon logout.	TC-016	Confirm that user sessions are terminated after logout	Session should be invalidated upon logout	Success
UM-F-1.16	If login fails due to incorrect credentials, an appropriate error message shall be displayed.	TC-017	Verify that incorrect login attempts show a relevant error message	User should see a meaningful error message	Success
UM-F-1.17	The system shall provide a password reset mechanism.	TC-018	Ensure users can reset passwords via email	Users should receive password reset instructions	Success
UM-NF-1.18	User authentication and authorization mechanisms shall be designed to protect against security threats.	TC-019	Test if authentication mechanisms are resilient against common attacks	System should prevent unauthorized access	Success
UM-NF-1.19	Passwords and authentication tokens shall never be stored in plaintext.	TC-020	Confirm that passwords and tokens are securely stored	Passwords/tokens should be encrypted	Success
UM-F-1.20	The platform should respond to user requests.	TC-021	Verify if the platform provides responses to various user requests	System should respond appropriately	Success
UM-UR-1.21	The system shall provide visual feedback when processing user requests.	TC-022	Check if visual indicators (e.g. loading spinners) appear during processing	Users should see feedback during operations	Success
UM-UR-1.22	The platform should be fully responsive.	TC-023	Ensure the platform adapts	System should be usable on all device types	Pending

			well to different screen sizes		
UM-F-1.23	The system shall allow users to edit their profile information including skills offered, availability, and location.	TC-024	Verify that users can update their profile details	Users should be able to save edited profiles	Success
UM-F-1.24	The system shall display user profiles with relevant information (skills, availability, ratings, etc.).	TC-025	Ensure that user profiles display accurate and relevant information	Profiles should show correct user details	Success

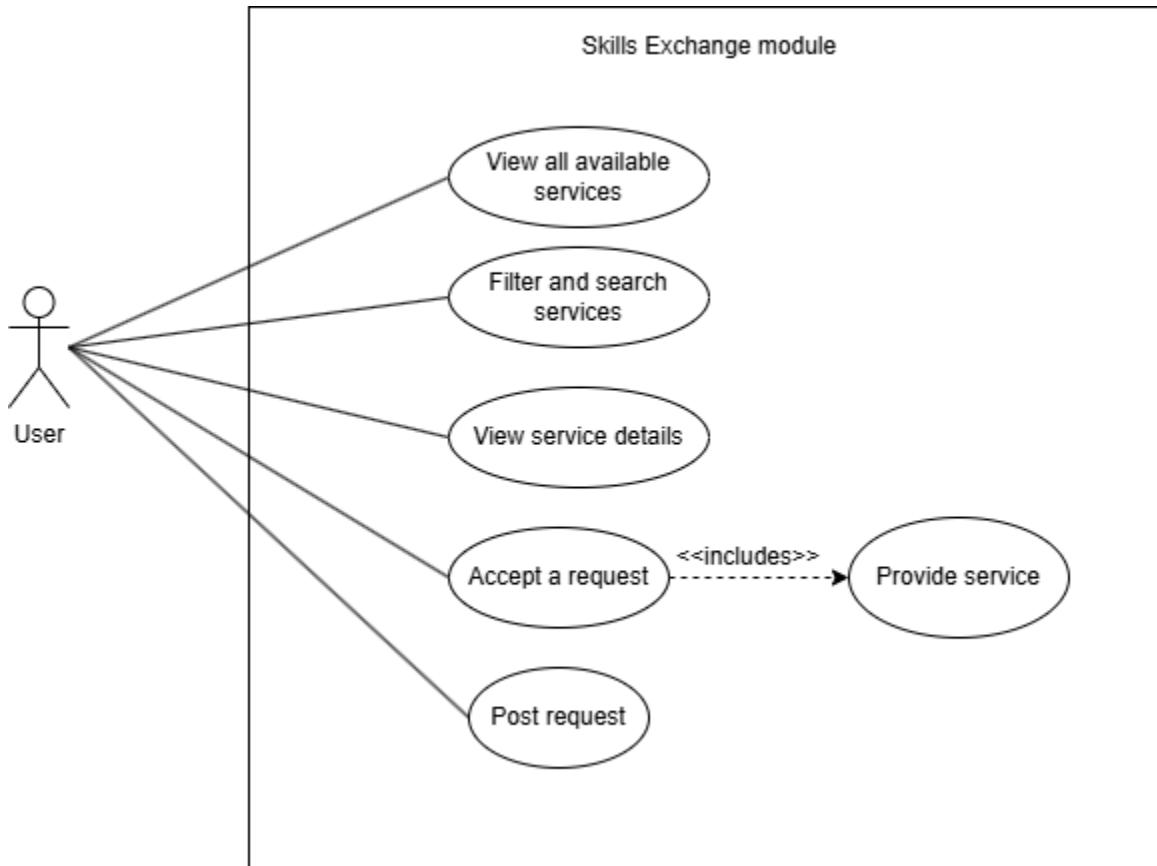
Skills Exchange System

Software Requirements Specification:

Req. Code	Req. Description	Use Case
HRF-SE- 1.0	Users shall be able to post a service request based on their needs.	Service Request
HRF-SE- 1.1	The system shall allow users to search for available services based on their location and skill type.	Service Exchange
HRF-SE- 1.2	The system shall allow users to request services from others.	Service Exchange
HRF-SE- 1.3	The system shall allow users to offer their services to others.	Service Exchange
HRF-SE- 1.4	The system shall use Geolocation API to capture the user's live location for service matching.	Service Matching

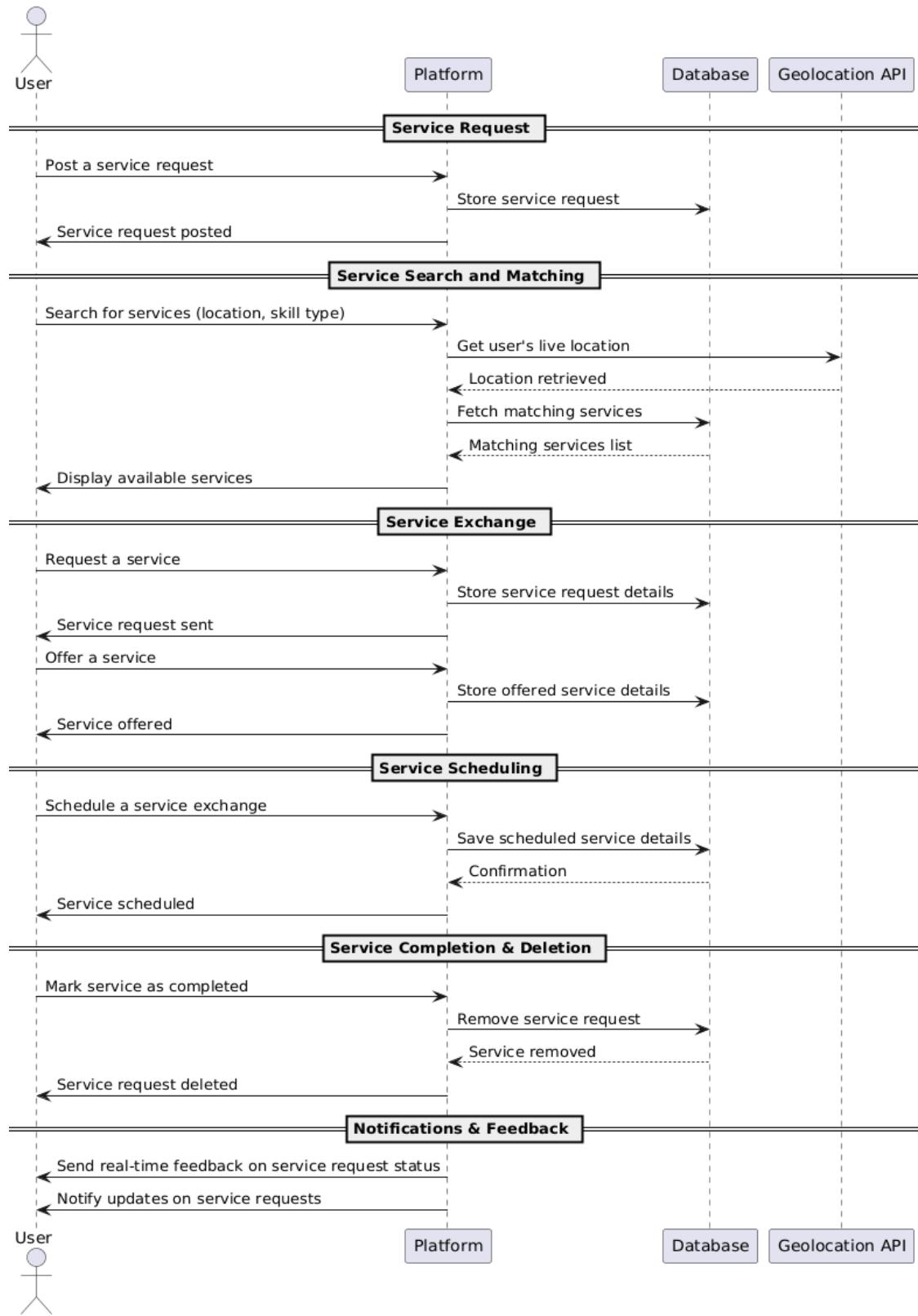
HRF-SE- 1.5	The system shall create a skills profile for each user based on the extracted and categorized skills.	Service Exchange
HRF-SE- 1.6	The system shall filter services based on the user's location and search radius.	Service Exchange
HRF-SE- 1.7	Each service shall have a time-based value	Service Exchange
HRF-SE- 1.8	Users shall be able to schedule service exchanges.	Service Scheduling
HRF-SE- 1.9	After service completion, the service request should be automatically removed from the "Services" page.	Service Deletion

Use case diagram



Use case diagram for Service Exchange 1

Sequence diagram



Sequence diagram for Service Exchange 1

Testing

Req. Code	Req. Description	Test ID	Test Case Description	Expected Result	Status
SES-F-1.0	Users shall be able to post a service request based on their needs.	TC-001	Verify that users can successfully post a service request based on their needs	User should be able to post a service request	Success
SES-F-1.1	The system shall allow users to search for available services based on their location and skill type.	TC-002	Ensure users can search for services based on location and skill type	User should see relevant service results based on search parameters	Success
SES-F-1.2	The system shall allow users to request services from others.	TC-003	Check if users can request services from others	User should be able to request services	Success
SES-F-1.3	The system shall allow users to offer their services to others.	TC-004	Verify that users can offer services to others	User should be able to offer services	Success
SES-F-1.4	The system shall use the Geolocation API to capture the user's live location for service matching.	TC-005	Confirm if the system captures the user's location using the Geolocation API	User's live location should be captured and used for service matching	Success
SES-F-1.5	The system shall create a skills profile for each user based on the extracted and categorized skills.	TC-006	Ensure the system creates a skills profile for each user	A profile should be created with categorized skills	Success
SES-F-1.6	The system shall filter services based on the user's location and search radius.	TC-007	Check if services are filtered by location and search radius	Services should be displayed according to location and radius	Pending

SES-F-1.7	Each service shall have a time-based value.	TC-008	Verify if each service has a time-based value	Services should have a time-based value	Success
SES-F-1.8	Users shall be able to schedule service exchanges.	TC-009	Ensure users can schedule a service exchange	Users should be able to select a time for service exchanges	Success
SES-F-1.9	After service completion, the service request should be automatically removed from the 'Services' page.	TC-010	Check if service requests are removed after completion	Service requests should disappear from the page after completion	Success
SES-NF-1.10	The system shall ensure data security and privacy for all users.	TC-011	Verify that user data is secure and privacy is maintained	User data should be secure and private	Success
SES-NF-1.11	The system shall be available with 99.9% uptime for reliability.	TC-012	Test system availability and uptime	System should have 99.9% uptime	Success
SES-NF-1.12	Service matching algorithms shall process requests within 2 seconds.	TC-013	Ensure service matching requests are processed within 2 seconds	Requests should be processed within 2 seconds	Success
SES-NF-1.13	The system shall encrypt all personal user data in transit and at rest.	TC-014	Verify that personal data is encrypted in transit and at rest	Data should be encrypted both during transit and while stored	Success
SES-UR-1.14	The platform shall provide a user-friendly interface for browsing and posting service requests.	TC-015	Ensure the platform has an intuitive and user-friendly interface	Interface should be easy to navigate and use	Success
SES-UR-1.15	The system shall provide real-time feedback on service request status.	TC-016	Check if the system provides real-time status	Users should see real-time feedback on request status	Success

			updates for service requests		
SES-UR-1.16	Users shall receive clear notifications for service request updates.	TC-017	Ensure that users receive notifications for service request updates	Users should receive timely and clear notifications	Pending
SES-UR-1.17	The system shall support responsive design for mobile, tablet, and desktop users.	TC-018	Check if the system is responsive on mobile, tablet, and desktop devices	The platform should adapt to all device types	Pending

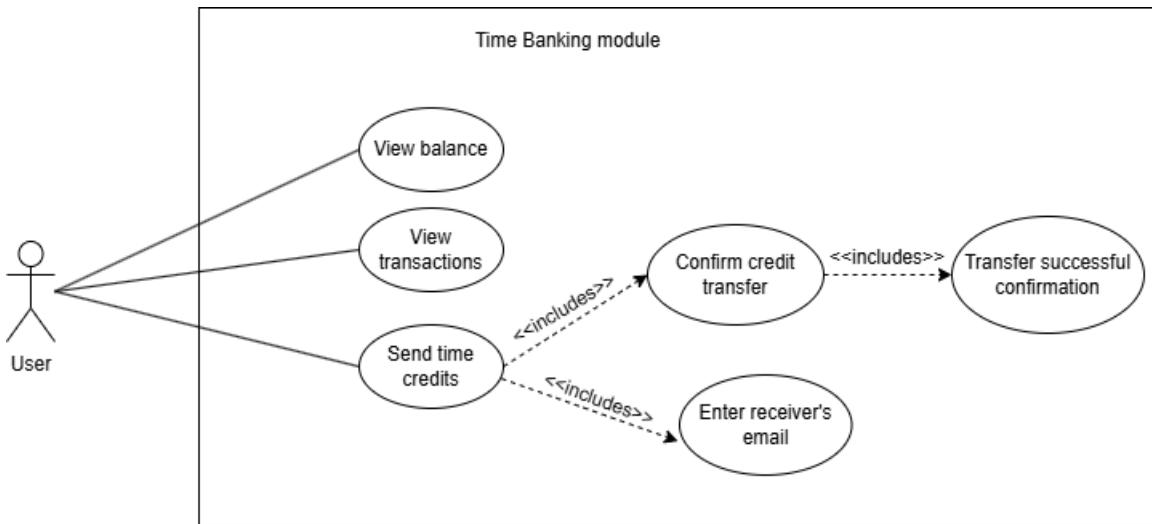
Time Banking System

Software Requirements Specification:

Req. Code	Req. Description	Use Case
HRF-TB- 1.0	The system shall allow users to send time credits after receiving services.	Time Banking
HRF-TB- 1.1	The system should dynamically update the service provider's time credits after clients send the amount.	Time Banking
HRF-TB- 1.2	The system shall track each user's time hours and update it in real-time.	Time Banking
HRF-TB- 1.3	The system shall display the user's current time balance on their profile.	Time Banking
HRF-TB- 1.4	The users should be allowed to view their recent transactions.	Time Banking

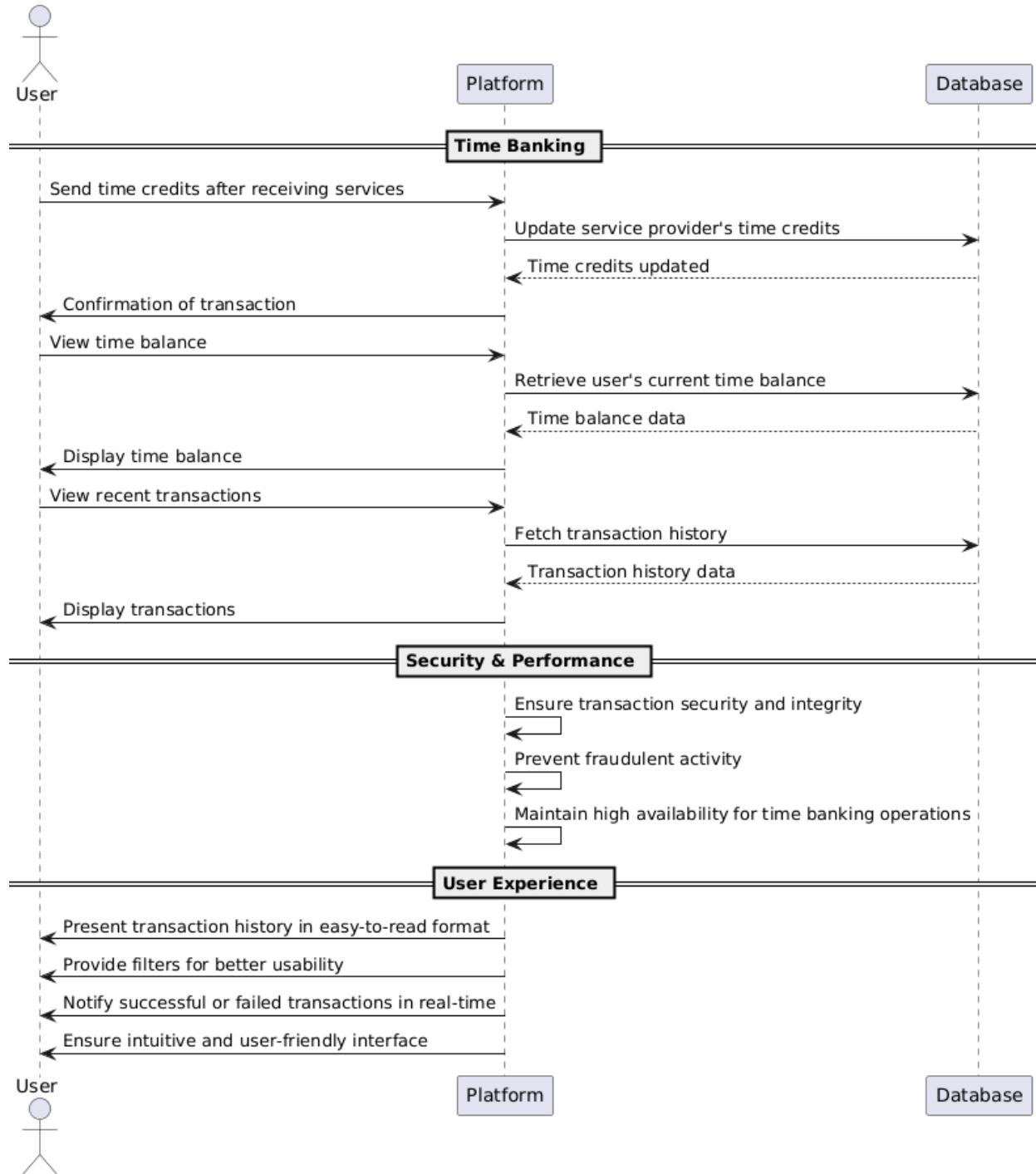
HRF- TB- 1.5	The system should be secure in handling transactions so that no blunder occurs.	Security
-----------------	---	----------

Use case diagram



Use case diagram for Time Banking 1

Sequence diagram



Sequence diagram for Time Banking 1

Testing

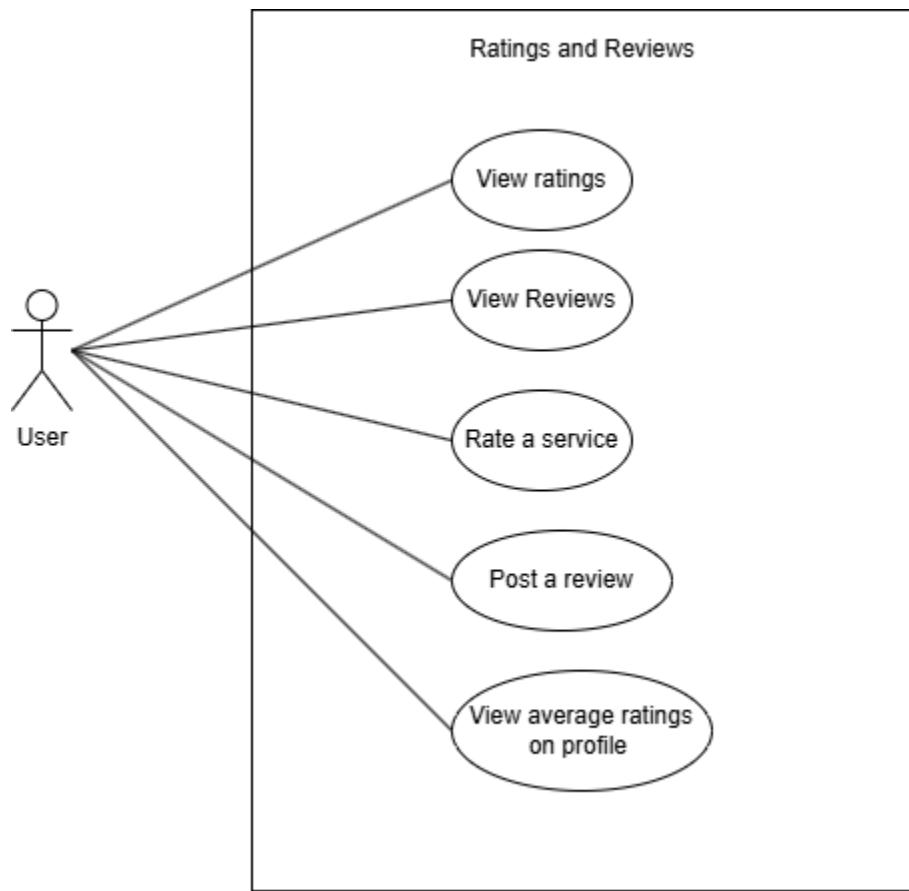
Req. Code	Req. Description	Test ID	Test Case Description	Expected Result	Status
TBS-F-1.0	The system shall allow users to send time credits after receiving services.	TC-001	Verify that users can send time credits after receiving services	Users should be able to send time credits after services	Success
TBS-F-1.1	The system should dynamically update the service provider's time credits after clients send the amount.	TC-002	Ensure that the service provider's time credits are updated dynamically	Time credits should be updated in real-time for service provider	Success
TBS-F-1.2	The system shall track each user's time hours and update it in real-time.	TC-003	Verify that the system tracks and updates each user's time hours in real-time	Time hours should be tracked and updated instantly	Success
TBS-F-1.3	The system shall display the user's current time balance on their profile.	TC-004	Ensure that the user's time balance is displayed on their profile	Time balance should be visible on the user profile	Success
TBS-F-1.4	The users should be allowed to view their recent transactions.	TC-005	Verify that users can view their recent transactions	Recent transactions should be accessible to users	Success
TBS-NF-1.5	The system should be secure in handling transactions so that no blunder occurs.	TC-006	Check if the system securely handles transactions without errors	Transactions should be securely processed without errors	Success
TBS-NF-1.6	The system shall ensure transaction integrity and prevent fraudulent activity.	TC-007	Ensure that the system prevents fraudulent activities and maintains	Transactions should be secure and fraud-free	Success

			transaction integrity		
TBS-NF-1.7	The system should support high availability to ensure seamless time banking operations.	TC-008	Test the system's availability and performance during high traffic	The system should maintain high availability during heavy usage	Success
TBS-UR-1.8	The transaction history shall be presented in an easy-to-read format with filters for better usability.	TC-009	Ensure the transaction history is readable with available filters	Transaction history should be easy to read and filterable	Pending
TBS-UR-1.9	Users shall receive real-time notifications for successful and failed transactions.	TC-010	Verify that users receive notifications for both successful and failed transactions	Users should get real-time notifications for transaction outcomes	Success
TBS-UR-1.10	The interface for sending and receiving time credits should be intuitive and user-friendly.	TC-011	Check if the interface for sending and receiving time credits is user-friendly	The interface should be intuitive and easy to use	Success

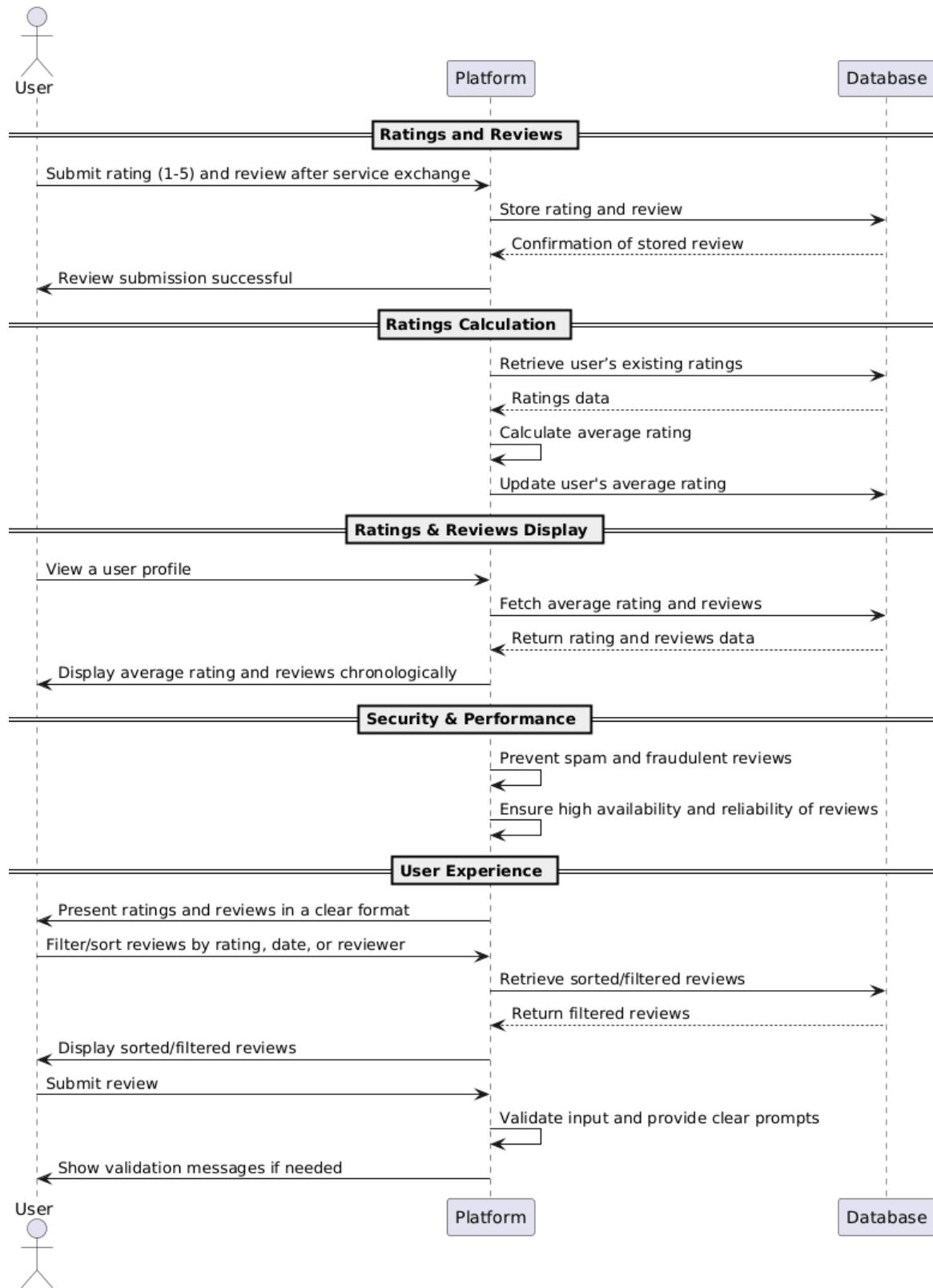
Ratings and Review Management System

Software Requirements Specification:

Req. Code	Req. Description	Use Case
HRF-RR-1.0	The system shall allow clients to rate and review individuals after service exchanges.	Ratings and Reviews
HRF-RR-1.1	The users can be rated on a scale of 1-5.	Ratings and Reviews
HRF-RR-1.2	The system shall calculate each user's average rating.	Ratings calculation
HRF-RR-1.3	The average rating should be dynamically updated on user profiles	Ratings display
HRF-RR-1.4	The system shall display individual reviews on user profiles.	Reviews display
HRF-RR-1.5	The system shall display the reviewer's name or alias with each review.	Ratings and Reviews
HRF-RR-1.6	The system shall display reviews in chronological order (most recent first).	Ratings and Reviews

Use case diagram*Use case diagram for Ratings and Reviews 1*

Sequence diagram



Sequence diagram for Ratings and Reviews 1

Testing

Req. Code	Req. Description	Test ID	Test Case Description	Expected Result	Status
RMS-F-1.0	The system shall allow clients to rate and review individuals after service exchanges.	TC-001	Verify that clients can rate and review individuals after service exchanges	Clients should be able to rate and review after completing service exchanges	Success
RMS-F-1.1	The users can be rated on a scale of 1-5.	TC-002	Ensure that users can be rated on a scale from 1 to 5	Users should be able to select a rating from 1 to 5	Success
RMS-F-1.2	The system shall calculate each user's average rating.	TC-003	Verify that the system calculates each user's average rating correctly	Average rating should be accurately calculated based on ratings	Success
RMS-F-1.3	The average rating should be dynamically updated on user profiles.	TC-004	Ensure that the average rating is updated in real-time on user profiles	Average rating should update immediately after a new rating	Success
RMS-F-1.4	The system shall display individual reviews on user profiles.	TC-005	Verify that individual reviews are displayed on user profiles	Each review should be visible on the user's profile	Success
RMS-F-1.5	The system shall display the reviewer's name or alias with each review.	TC-006	Ensure that each review displays the reviewer's name or alias	Reviewer's name or alias should appear with their review	Success
RMS-F-1.6	The system shall display reviews in chronological order (most recent first).	TC-007	Ensure reviews are shown in chronological order, with the most recent review displayed first	Reviews should appear in order with most recent at the top	Success

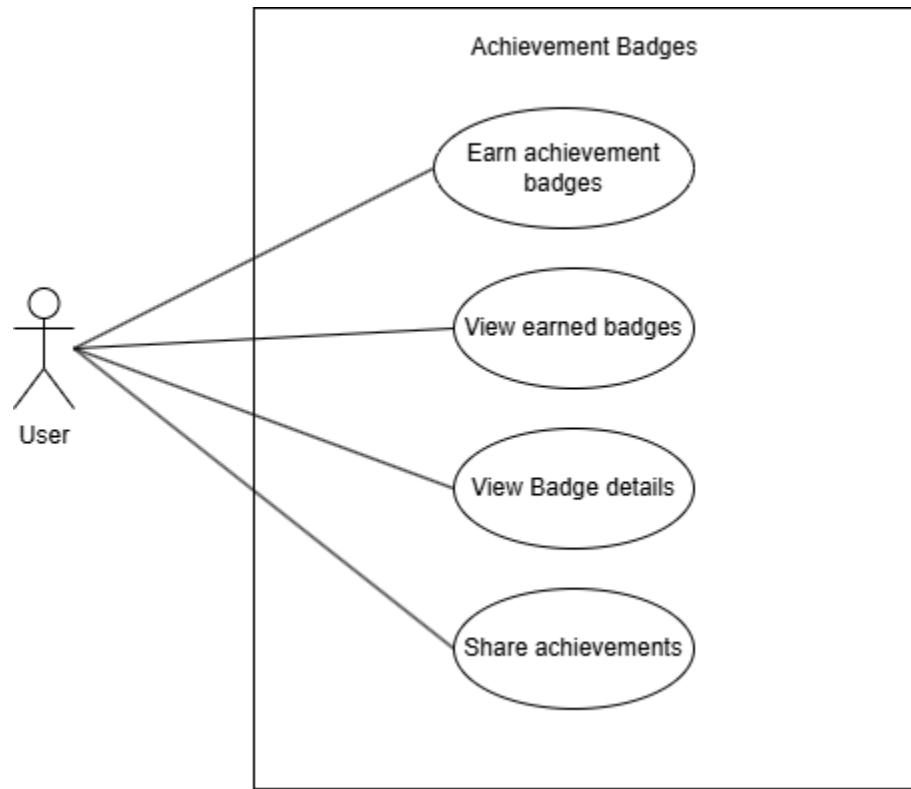
RMS-NF-1.7	The rating system shall be designed to prevent spam or fraudulent reviews.	TC-008	Verify that the rating system prevents spam or fraudulent reviews	The system should block fraudulent or spam reviews	Success
RMS-NF-1.8	The system should ensure high availability and reliability of the rating and review feature.	TC-009	Test if the rating and review feature works during high traffic	The rating and review feature should function smoothly during peak traffic	Success
RMS-UR-1.9	The ratings and reviews should be presented in a clear and readable format.	TC-010	Ensure that ratings and reviews are displayed in a readable format	Ratings and reviews should be easy to read and understand	Success
RMS-UR-1.10	Users shall be able to filter and sort reviews based on rating, date, or reviewer.	TC-011	Verify that users can filter and sort reviews by rating, date, or reviewer	Users should be able to filter and sort reviews by specified parameters	Pending
RMS-UR-1.11	The review submission process should be user-friendly with clear prompts and validation messages.	TC-012	Check if the review submission process is user-friendly with prompts and validation	The review submission should be easy to complete with helpful prompts	Success

Achievement Badges Management System

Software Requirements Specification:

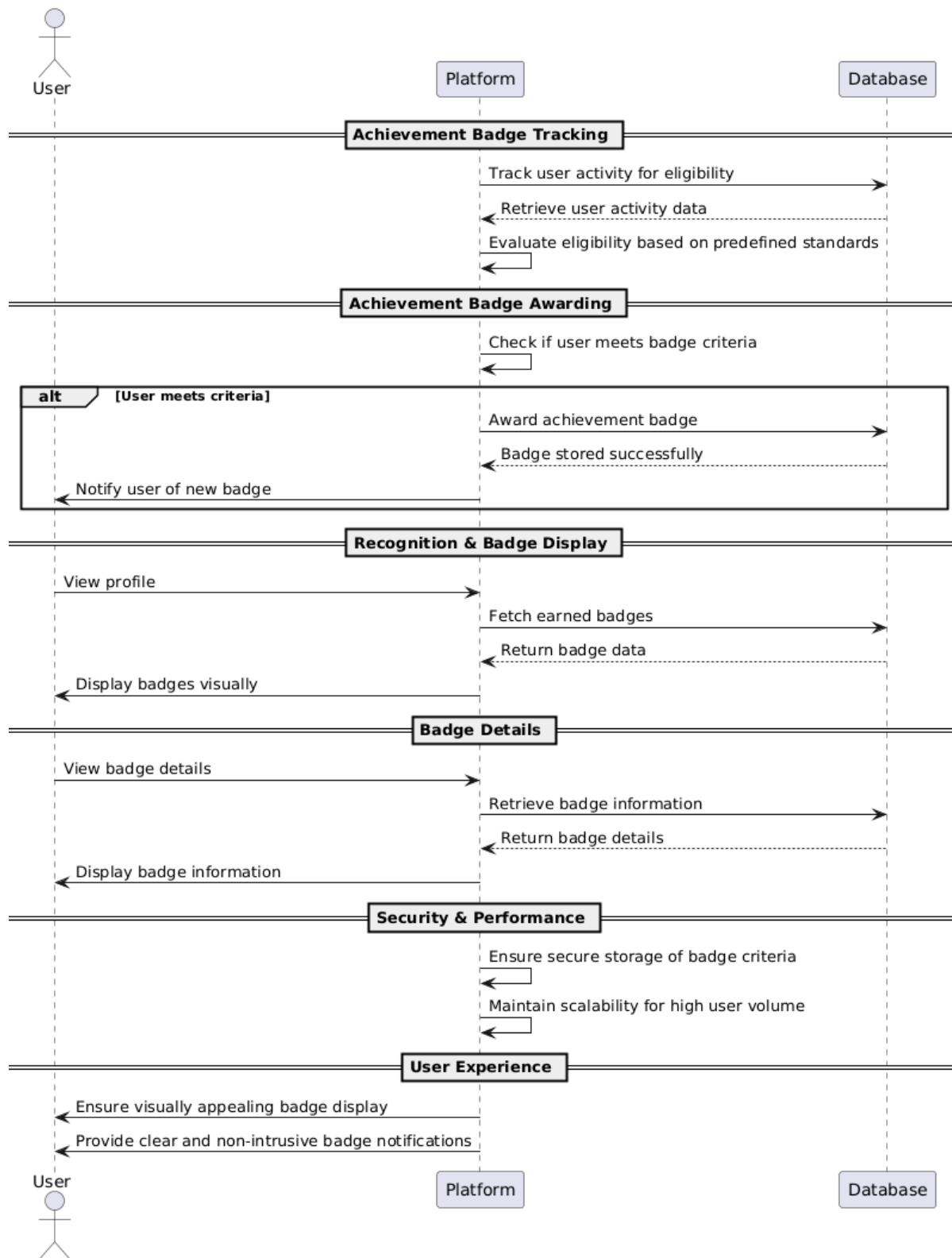
Req. Code	Req. Description	Use Case
HRF-AB- 1.0	The system shall track eligibility for achievement badges based on predefined standards.	Achievement Badges
HRF-AB- 1.1	The system shall dynamically award achievement badges to users based on specific criteria (e.g., completing a certain number of service hours).	Achievement Badges Creation
HRF-AB- 1.2	The system shall display earned badges on user profiles.	Recognition
HRF-AB- 1.3	The system shall allow users to view detailed information about each badge (e.g., description, criteria to earn it).	Achievement Badges
HRF-AB- 1.4	The system shall notify users when they earn a new badge.	Achievement Badges

Use case diagram



Use case diagram for Achievement Badges 1

Sequence diagram



Sequence diagram for Achievement Badges 1

Testing

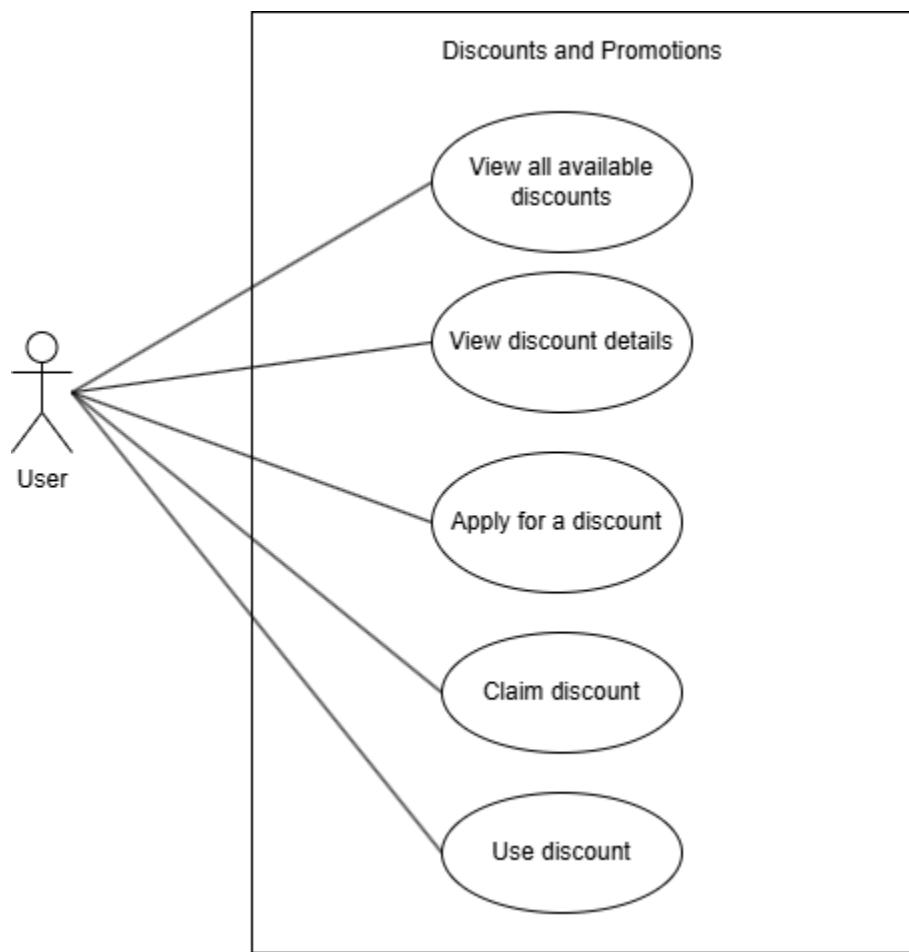
Req. Code	Req. Description	Test ID	Test Case Description	Expected Result	Status
AMS-F-1.0	The system shall track eligibility for achievement badges based on predefined standards.	TC-001	Verify that the system tracks eligibility for achievement badges based on standards	System should track eligibility correctly based on the predefined criteria	Pending
AMS-F-1.1	The system shall dynamically award achievement badges to users based on specific criteria (e.g., completing a certain number of service hours).	TC-002	Ensure that achievement badges are awarded dynamically based on specific criteria	Badges should be awarded automatically when criteria are met	Pending
AMS-F-1.2	The system shall display earned badges on user profiles.	TC-003	Verify that earned badges are displayed on user profiles	Earned badges should be visible on user profiles	Pending
AMS-F-1.3	The system shall allow users to view detailed information about each badge (e.g., description, criteria to earn it).	TC-004	Ensure users can view detailed information about each badge	Users should be able to view the description and criteria for each badge	Pending
AMS-F-1.4	The system shall notify users when they earn a new badge.	TC-005	Verify that users are notified when they earn a new badge	Users should receive a notification when a new badge is earned	Pending
AMS-NF-1.5	The badge assignment process should be automated and	TC-006	Ensure the badge assignment process is	System should handle a high volume of users	Pending

	scalable for high user volume.		automated and scalable	without performance issues	
AMS-NF-1.6	The system should ensure that badge criteria are securely stored and cannot be tampered with.	TC-007	Verify that badge criteria are securely stored and protected	Badge criteria should be securely stored and tamper-proof	Pending
AMS-UR-1.7	The badge display should be visually appealing and easy to understand.	TC-008	Check that the badge display is visually appealing and easy to understand	Badges should have a clear attractive design	Pending
AMS-UR-1.8	Users should be able to sort and filter badges in their profile.	TC-009	Ensure users can sort and filter badges in their profile	Users should be able to filter and sort badges by relevant criteria	Pending
AMS-UR-1.9	Notifications about new badges should be clear and non-intrusive.	TC-010	Verify that badge notifications are clear and non-intrusive	Notifications should be clear and not disrupt the user experience	Pending

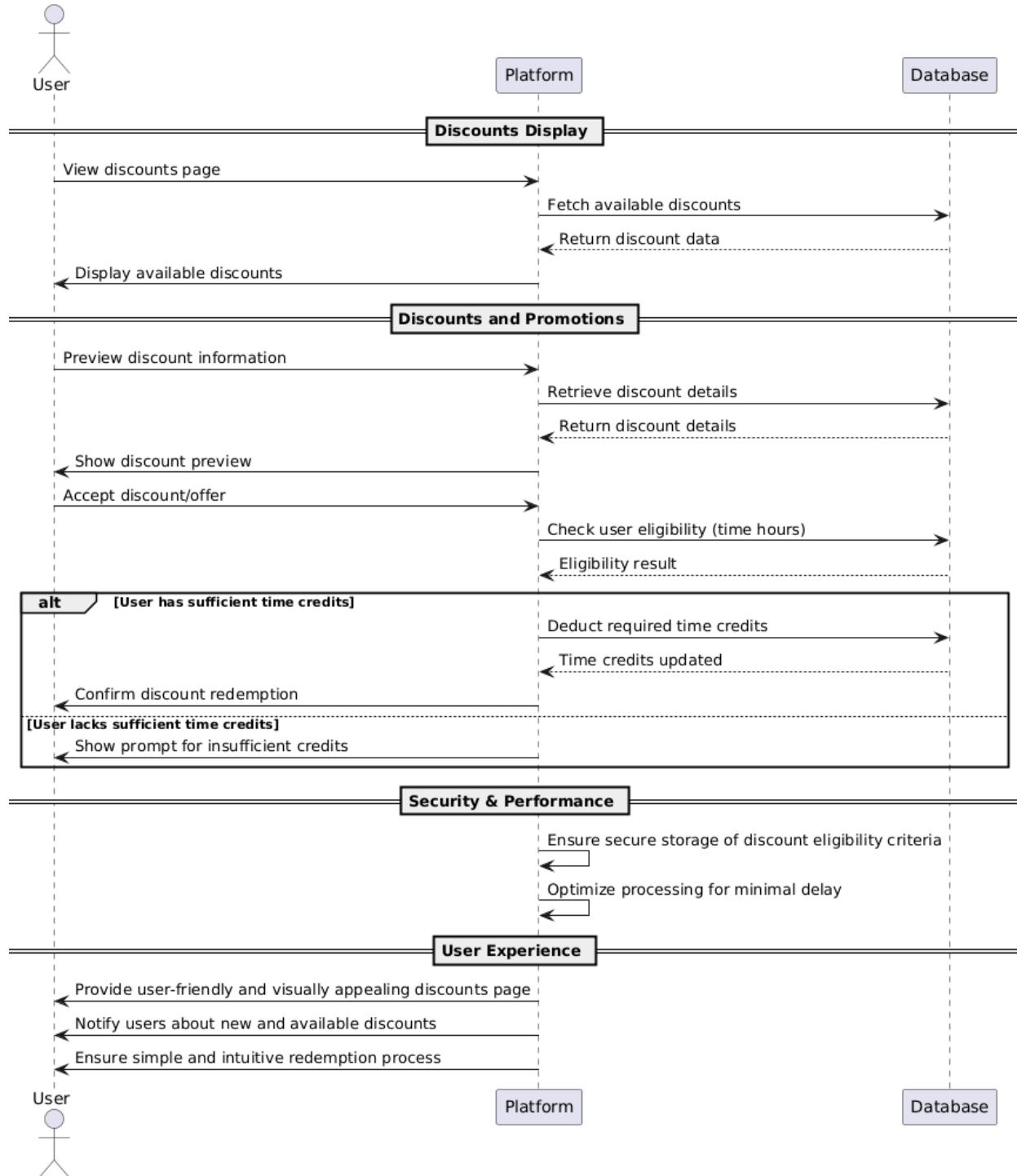
Discount Management System

Software Requirements Specification:

Req. Code	Req. Description	Use Case
HRF-DP- 1.0	The users should be able to view all the available discounts on “discounts” page.	Discounts display
HRF-DP- 1.1	The users shall be able to preview discounts information.	Discounts and Promotions
HRF-DP- 1.2	Users should be allowed to accept the discounts and offers.	Discounts and Promotions
HRF-DP- 1.3	The system shall provide discounts at partner businesses based on the user's time hours.	Discounts and Promotions
HRF-DP- 1.4	The system shall track eligibility for discounts based on time hours.	Discounts and Promotions
HRF-DP- 1.5	A prompt should be given if the user does not have sufficient time credits.	Discounts and Promotions

Use case diagram*Use case diagram for Discounts 1*

Sequence diagram



Sequence diagram for Discounts system 1

Testing

Req. Code	Req. Description	Test ID	Test Case Description	Expected Result	Status
DMS-F-1.0	The users should be able to view all the available discounts on the “discounts” page.	TC-001	Ensure users can view all available discounts on the discounts page	Users should be able to see a list of all available discounts on the page	Pending
DMS-F-1.1	The users shall be able to preview discount information.	TC-002	Verify that users can preview information about discounts	Users should be able to click and view detailed discount information	Pending
DMS-F-1.2	Users should be allowed to accept the discounts and offers.	TC-003	Ensure users can accept discounts and offers	Users should be able to click an accept button to confirm the discount	Pending
DMS-F-1.3	The system shall provide discounts at partner businesses based on the user's time hours.	TC-004	Verify that discounts are provided based on user's time hours	Discounts should be calculated based on the time hours a user has	Pending
DMS-F-1.4	The system shall track eligibility for discounts based on time hours.	TC-005	Ensure the system tracks eligibility for discounts based on time hours	System should calculate and track user eligibility for discounts based on hours	Pending
DMS-F-1.5	A prompt should be given if the user does not have sufficient time credits.	TC-006	Ensure prompt is displayed if the user lacks sufficient time credits	A prompt should appear informing the user about insufficient credits	Pending
DMS-NF-1.6	The system should ensure that discount eligibility criteria are stored securely.	TC-007	Verify that discount eligibility criteria are securely stored	Eligibility criteria should be encrypted and stored securely	Pending

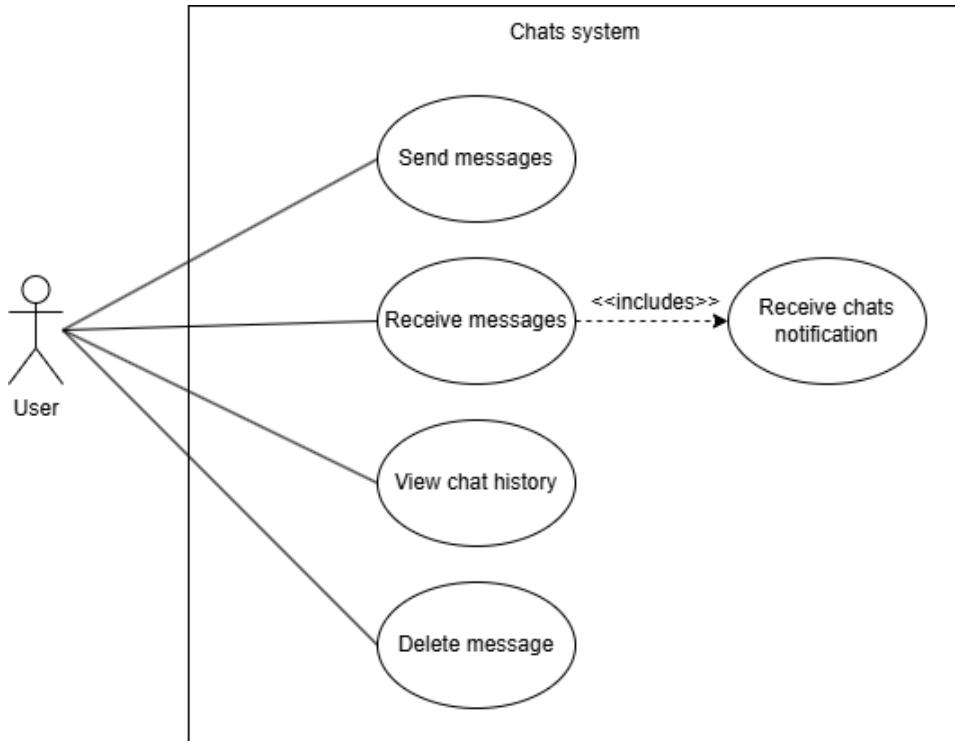
DMS-NF-1.7	The system should process discount requests efficiently to minimize delays.	TC-008	Ensure efficient processing of discount requests	Discount requests should be processed quickly and with minimal delay	Pending
DMS-UR-1.8	The discounts page should be user-friendly and visually appealing.	TC-009	Ensure the discounts page is user-friendly and visually appealing	The discounts page should have a clean intuitive design with easy navigation	Success
DMS-UR-1.9	Users should receive clear and timely notifications about available discounts.	TC-010	Ensure users receive notifications about available discounts	Users should get clear notifications promptly when new discounts are available	Pending
DMS-UR-1.10	The discount redemption process should be simple and intuitive.	TC-011	Verify the simplicity and intuitiveness of the discount redemption process	The process should be straightforward with clear steps for redemption	Pending

Chat System

Software Requirements Specification:

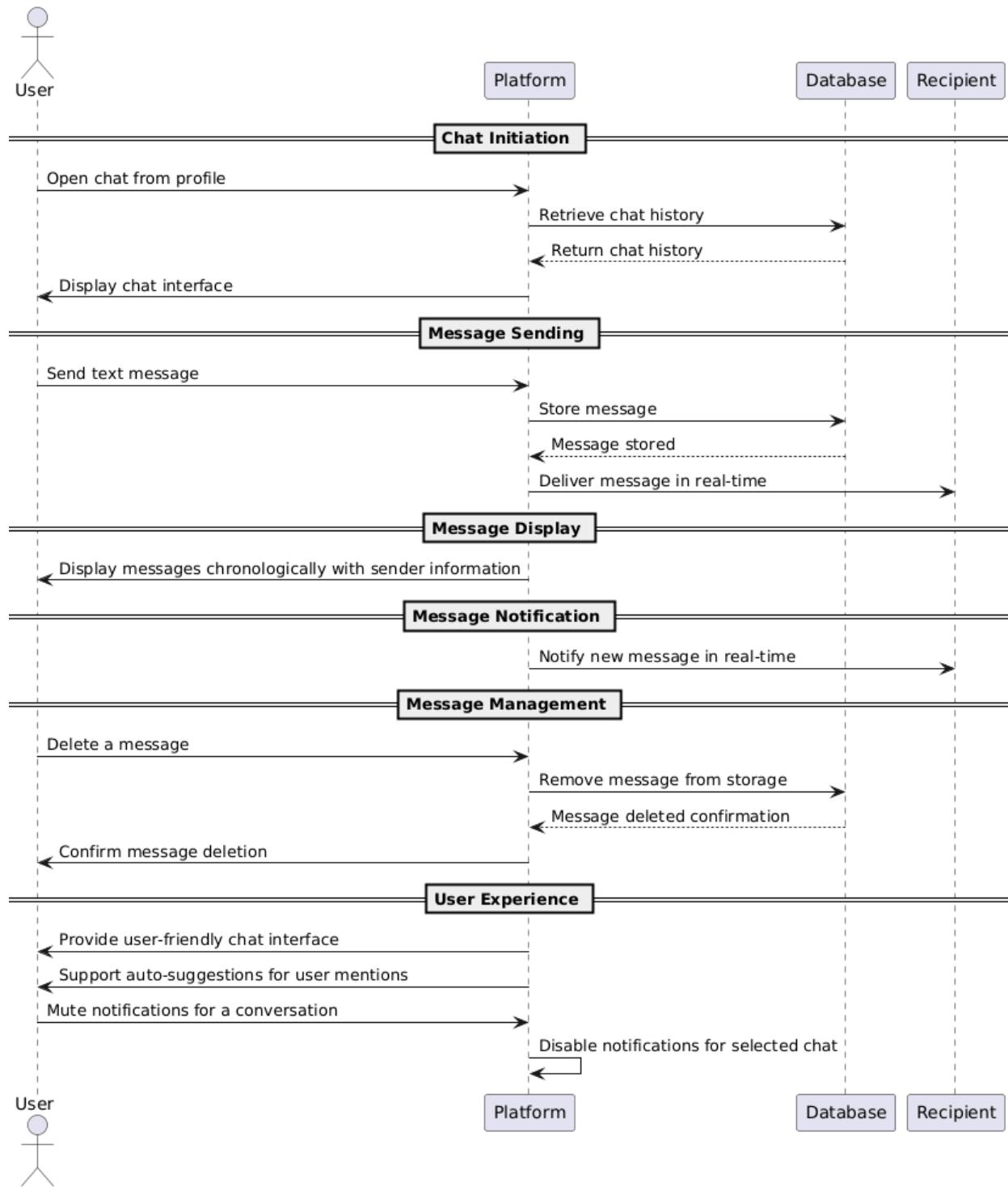
Req. Code	Req. Description	Use Case
HRF-CS- 1.0	The system should allow chat functionality to allow clients and service providers to chat with each other.	Message Sending
HRF-CS- 1.1	The chat system shall support text-based conversations.	Message Sending
HRF-CS- 1.2	Messages shall display sender information.	Message Display
HRF-CS- 1.3	Conversations shall be shown in chronological order.	Message Display
HRF-CS- 1.4	Users shall receive real-time notifications for new messages.	Message Notification
HRF-CS- 1.5	Message history shall be stored for future reference.	Message Persistence
CHAT-F-1.6	Users shall be able to search for messages within their chat history.	Message Retrieval
CHAT-F-1.7	Chat shall be accessible from user profiles	Chat Initiation
CHAT-F-1.8	Users shall be able to delete their messages.	Message Management

Use case diagram



Use case diagram for chats system 1

Sequence diagram



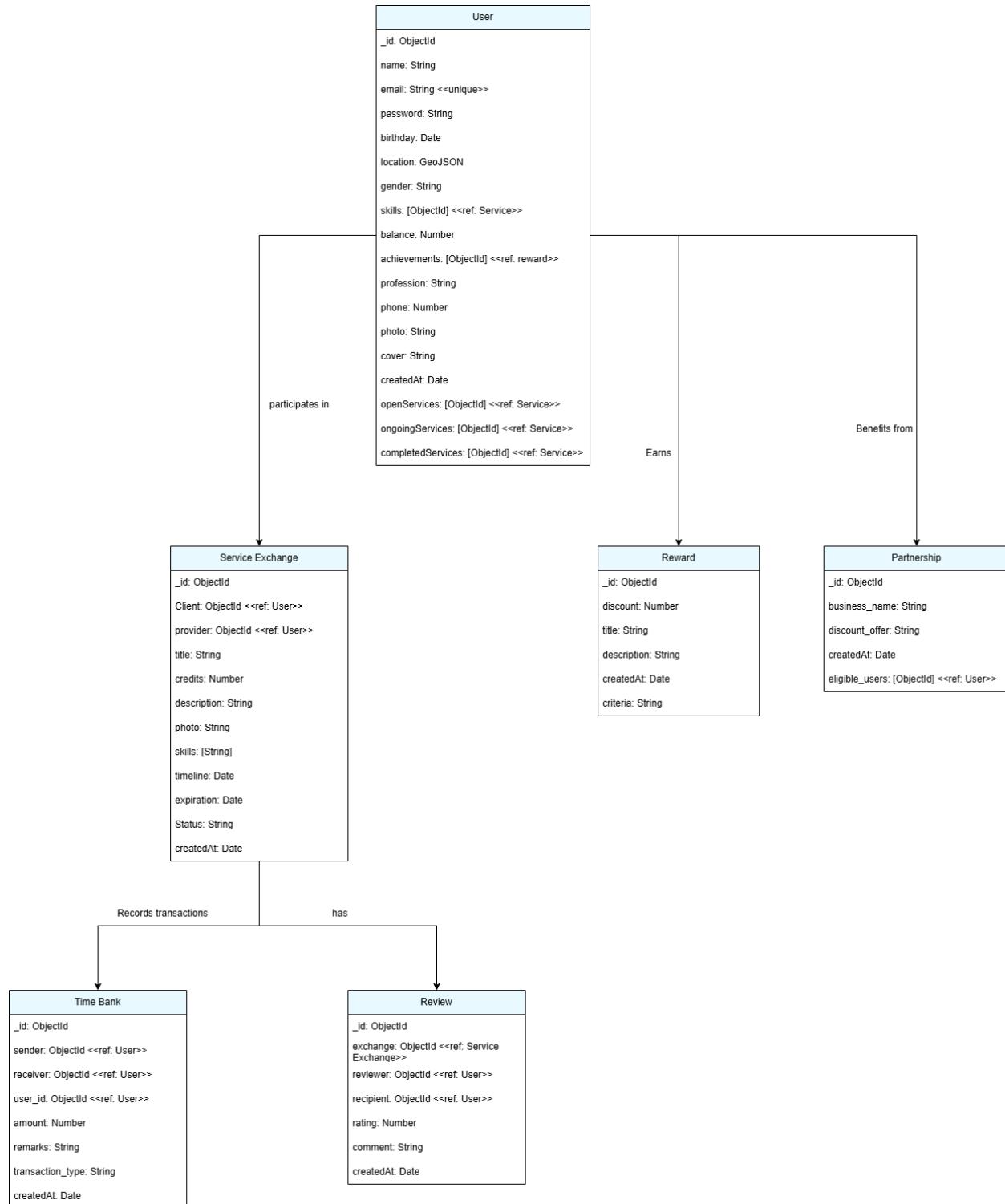
Sequence diagram for chats system 1

Testing

Req. Code	Req. Description	Test ID	Test Case Description	Expected Result	Status
CS-F-1.0	The system should allow chat functionality to enable clients and service providers to chat with each other.	TC-001	Ensure users can send and receive messages in the chat	Users should be able to send and receive messages within the chat	Pending
CS-F-1.1	The chat system shall support text-based conversations.	TC-002	Verify that the system supports text-based messages	The system should allow users to send and receive text-based messages	Pending
CS-F-1.2	Messages shall display sender information.	TC-003	Ensure that messages display the sender's information	Messages should show the sender's name or profile information	Pending
CS-F-1.3	Conversations shall be shown in chronological order.	TC-004	Verify that conversations are displayed in the correct order	Messages should appear in chronological order with the newest message at the bottom	Pending
CS-F-1.4	Users shall receive real-time notifications for new messages.	TC-005	Ensure users receive notifications for new messages	Users should get immediate notifications when new messages are received	Pending
CS-F-1.5	Message history shall be stored for future reference.	TC-006	Verify that the system stores message history	Messages should be saved and retrievable from past conversations	Pending
CS-F-1.6	Users shall be able to search for messages within their chat history.	TC-007	Ensure users can search their chat history	Users should be able to search messages by keywords or other criteria	Pending

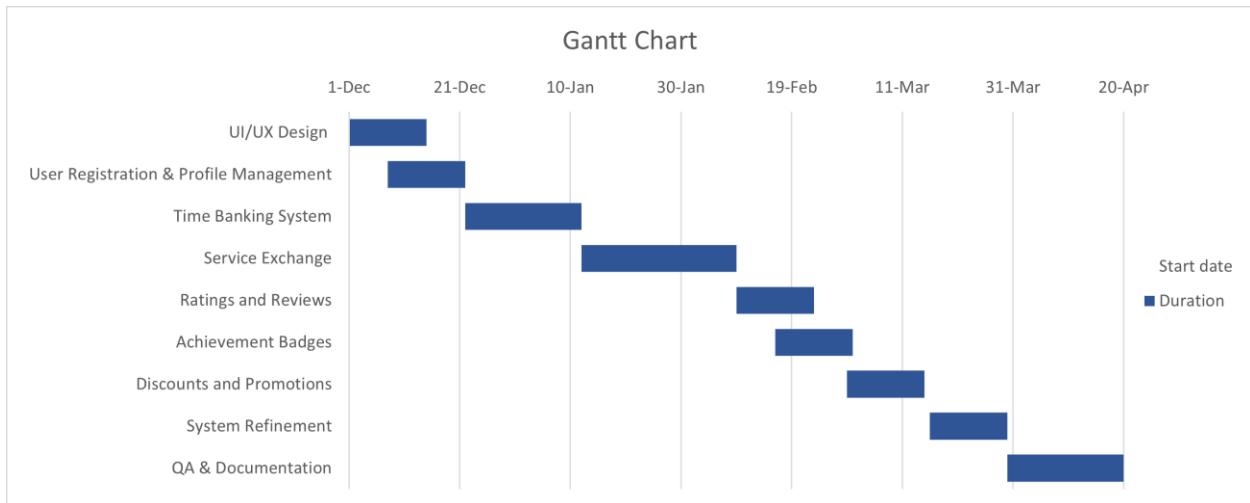
CS-F-1.7	Chat shall be accessible from user profiles.	TC-008	Verify that chat can be accessed from user profiles	Users should be able to open and access the chat from their profile page	Pending
CS-F-1.8	Users shall be able to delete their messages.	TC-009	Ensure users can delete their messages	Users should be able to delete individual messages within a conversation	Pending
CS-NF-1.9	The system should encrypt messages to ensure data privacy.	TC-010	Ensure that messages are encrypted	Messages should be encrypted during transmission to protect privacy	Pending
CS-NF-1.10	The chat feature should have minimal latency for real-time interaction.	TC-011	Verify the latency of the chat system	The chat system should have minimal delay providing near-instant communication	Pending
CS-NF-1.11	The system should handle a large number of concurrent chats without performance issues.	TC-012	Ensure the system supports multiple concurrent chats	The system should maintain performance even with a large number of active users chatting simultaneously	Pending
CS-UR-1.12	The chat interface should be user-friendly and visually clear.	TC-013	Verify the clarity and ease of use of the chat interface	The interface should be intuitive and easy to navigate	Pending
CS-UR-1.13	The message input field should support auto-suggestions for user mentions.	TC-014	Ensure the message input field supports auto-suggestions	When typing the system should suggest user names for mentions	Pending
CS-UR-1.14	Users should be able to mute notifications.	TC-015	Ensure users can mute notifications for specific chats	Users should be able to mute notifications.	Pending

MongoDB Schema Design Diagram



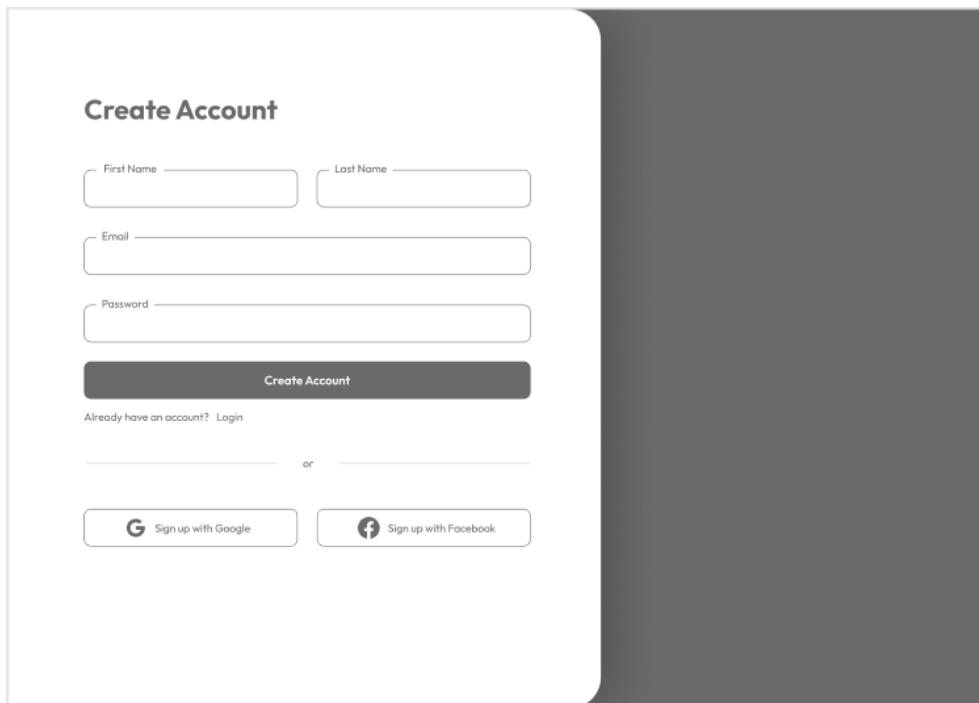
MongoDB Schema Design Diagram 1

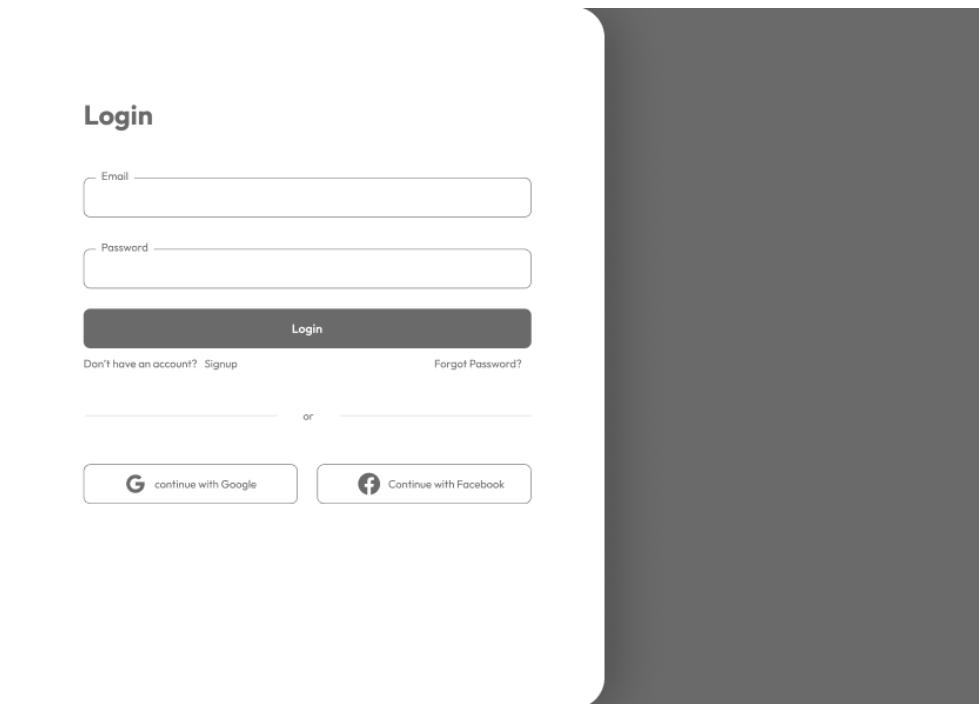
Gantt



Gantt chart 1

Wireframes





This wireframe details a user profile page for Jenisha Gurung, a part-time chef. The page includes:

- About:** Includes gender (Female), birth date (June 26, 2003), location (Kumargal, Kathmandu), email (jenrg@gmail.com), and phone number (983736483).
- Skills:** Cooking, Assist, Reader, Content writing, Baking, Volunteer, Frontend designer, Pet sitting, Baby sitting, Simple tasks.
- Services:** (Not explicitly listed in the wireframe but implied by the 'Services' tab)
- Reviews:** (Not explicitly listed in the wireframe but implied by the 'Reviews' tab)
- Time bank:** 10 time credits, with a 'See transactions' button.
- Average rating:** 4 stars from 11 reviews, with a 'See ratings' button.
- Achievement badges:** Three badges: '10 hour credits reached!' (Bronze Certified), '10 hour credits reached!' (Bronze Certified), and '10 hour credits reached!' (Bronze Certified).
- Footer:** Includes 'Settings and Help', 'Frame 246', 'Follow us' (Twitter, Instagram, LinkedIn, Facebook), 'Useful Links' (Our Privacy Policy, FAQ's, Blogs, Terms of Service), 'Contacts' (Address: Kapan, Kathmandu, Email: hourflow@gmail.com, Phone Number: +977 9873269812), and a copyright notice: '© All Copyrights reserved'.

Empowering Communities, One Hour at a Time.

Empowering individuals to share skills and services and build connections and celebrate mutual support.

[Join our community](#)

Where Time Becomes Currency and Skills Build Communities.

Inspiring individuals to exchange their unique talents, fostering collaboration and skill-sharing within local communities.

[Browse services](#)

About Us

Our Vision

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Our Mission

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Why HourFlow?

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Testimonials

Follow us

Useful Links

- [Our Privacy Policy](#)
- [FAQs](#)
- [Blogs](#)
- [Terms of Service](#)

Contacts

Address: Kathmandu, Nepal
Email: hourflow@gmail.com
Phone Number: +977 9876543210

All Copyrights reserved

Get exclusive discounts!

Discounts and offers!

[Claim your discounts](#)

Top Offers

Chinese food calling at 35% off!
Hotpot restaurant

Offers near you

Get up to 30% off on Groceries + Extra 10% off on Drinks!
Get up to 40% off on Walmart + Extra 10% off on miguel

Chinese food calling at 35% off!
Hotpot restaurant

Chinese food calling at 35% off!
Hotpot restaurant

Chinese food calling at 35% off!
Hotpot restaurant

Popular Categories

Get upto 10% on Electronics

Get upto 10% on Electronics

Get upto 10% on Electronics

Top vendors

Follow us

Useful Links

- [Our Privacy Policy](#)
- [FAQs](#)
- [Blogs](#)
- [Terms of Service](#)

Contacts

Address: Kathmandu, Nepal
Email: hourflow@gmail.com
Phone Number: +977 9876543210

All Copyrights reserved

41

LOGO Home Services Offers Contact About us Search for services...   

Frame 245

< Settings

Edit profile



Jenisha Gurung

jengrg@gmail.com

Bouddha, Kathmandu

9838272988

Kathmandu Bagmati

ilikebaking 

Home Services Offers Contact About us Search for services...   

< BACK TO HOME PAGE

Post a Request

Please give title

Give description to get more responses
Max. 2000 characters

Tech and Digital

Upload here... 

Enter time credits you will pay...

Listed Unlisted

Follow us    

Useful Links

- Our Privacy Policy
- FAQ's
- Blogs
- Terms of Service

Contacts

Address : Kapan, Kathmandu
Email : hourflow@gmail.com
Phone Number : +977 9873289812

 All Copyrights reserved

The screenshot displays a web application interface with the following components:

- Header:** Includes a "LOGO" button, navigation links for "Home", "Services", "Offers", "Contact", and "About us", a search bar with placeholder "Search for services...", a magnifying glass icon, and a bell icon.
- Main Content Area:**
 - A large call-to-action section with the heading "Share Skills, Build Bonds." and a subtext: "Encouraging acts of service, fostering deeper connections and a spirit of collaboration within communities." It features a "Browse services" button.
 - A section titled "Requests available" showing a grid of service cards. Each card for "Web designing" by "Kritit Tamang" from "Boudha, Kathmandu" lists skills: "web designing, figma, html, css". A "REVIEW" button is present at the bottom of each card.
 - A "Show more" button located below the second row of cards.
- Footer:**
 - "Follow us" section with icons for Twitter, Instagram, LinkedIn, and Facebook.
 - "Useful Links" section with links to "Our Privacy Policy", "FAQ's", "Blogs", and "Terms of Service".
 - "Contacts" section with address: "Kapori, Kathmandu", email: "hourlfw@gmail.com", and phone number: "+877 9873288812".
 - A copyright notice: "All Copyrights reserved".

LOGO Home Services Offers Contact About us   

REQUEST

Web Designing

 **30** Time credits

Timeline: 20 days

POSTED BY:



Kritit Tamang
Boudha, Kathmandu



[Chat with Kriti](#) 

[Take this request](#)

SKILLS: Web designing, html, css

DESCRIPTION

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.

This request expires in Dec 20, 2024

Follow us






Useful Links

- [Our Privacy Policy](#)
- [FAQ's](#)
- [Blogs](#)
- [Terms of Service](#)

Contacts

Address : Kopan, Kathmandu
 Email : hourflow@gmail.com
 Phone Number : +977 9873289812

© All Copyrights reserved