

SOFTWARE ENGINEERING PROJECT

# My Travel Diary

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# Overall Description

Introduction to My Travel Diary idea  
and main concepts of the software

CURRENT SITUATION

CLIENT

BUSINESS REQUIREMENTS

SYSTEM USERS

ASSUMPTIONS AND DEPENDENCIES

# Requirements specifications

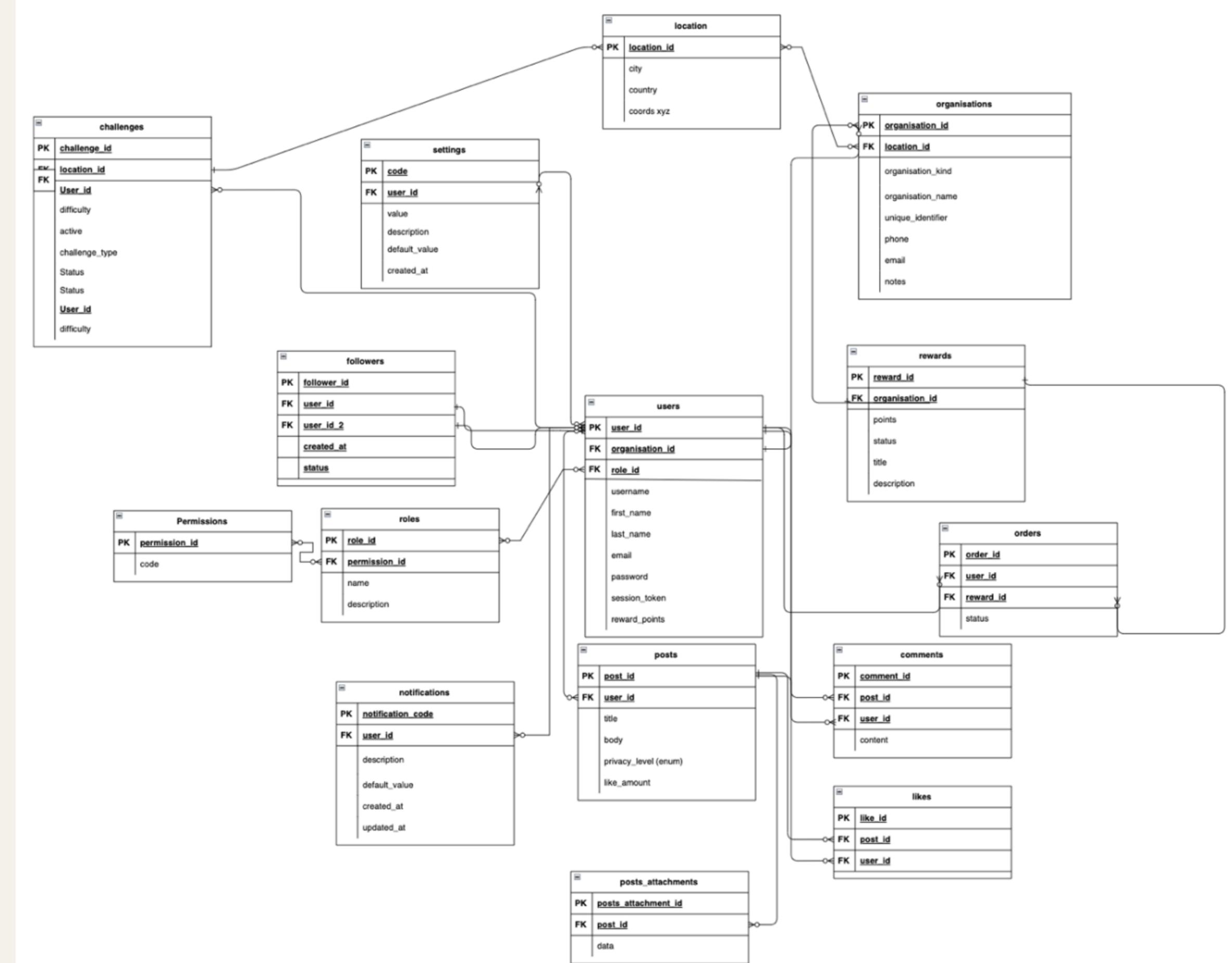
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Conceptual  
database model

Functional  
requirements

Non-functional  
requirements

# Conceptual database model



2.1.1. DATABASE CONCEPTUAL MODEL

# Functional requirements

## Core modules and features

User Management module : Registration, roles, and profile management.

Challenges module: Create, view, accept, and verify travel tasks.

Rewards points and catalogue module: Earn and redeem points for rewards.

Social Media module : Share posts, comment, like, and follow others.

Order module: receive and verify orders.

Customer support and notification module: send/receive messages and notifications.

# Non-functional requirements

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Performance

Compatibility

Security

Connectivity

Localization

Availability

Accessibility

# Database Design

26 TABLES - SUPPORTING USERS, CHALLENGES, REWARDS AND  
NOTIFICATIONS

NORMALIZED TO 3NF

INCLUDES SELF RELATION TABLES:  
FOLLOWERS

KEY TABLES:

USERS: PROFILES,  
REWARD POINTS

CHALLENGES: LOCATION  
BASED TASKS

REWARDS: REDEMPTIONS

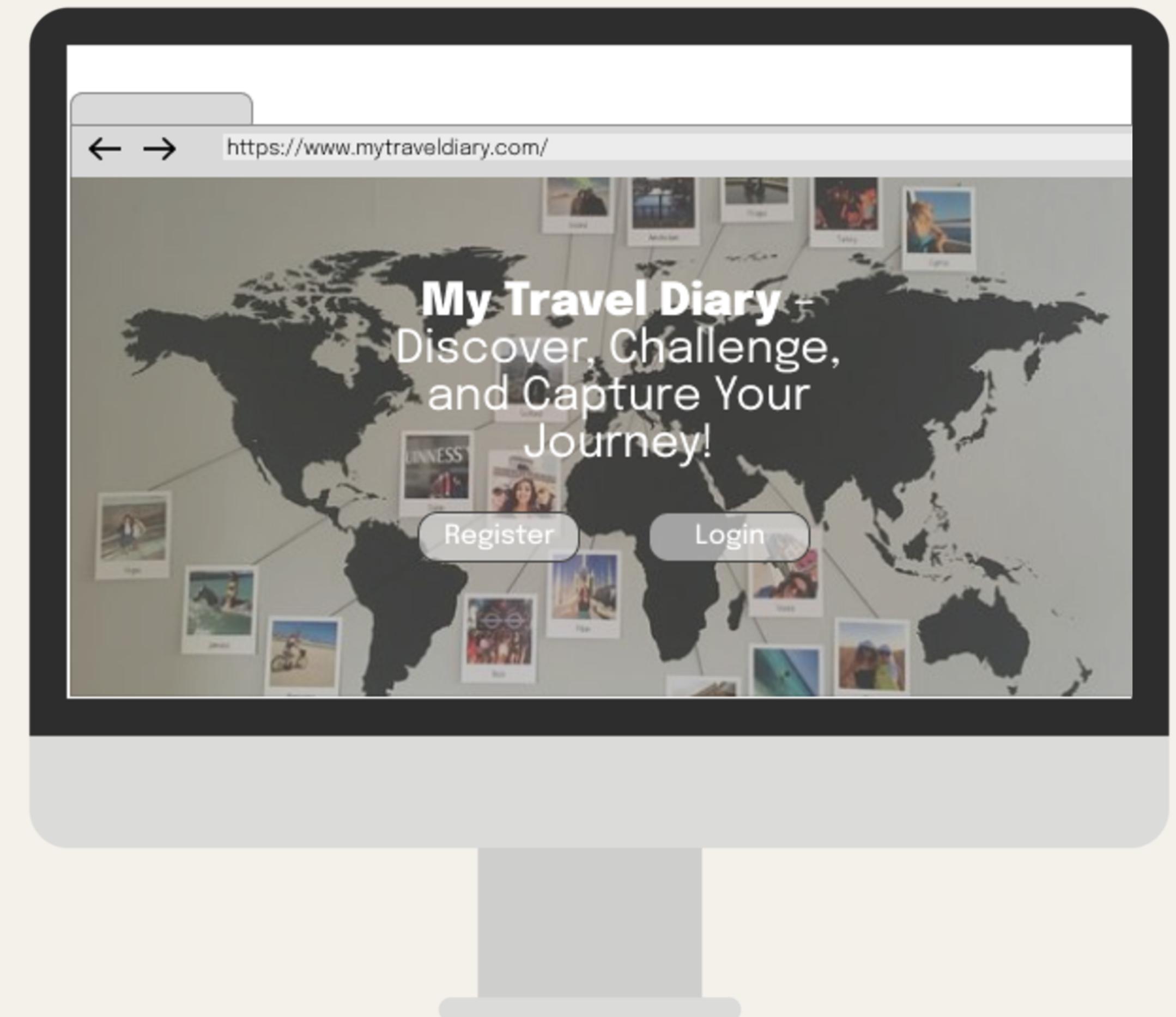
ORDERS: TRANSACTIONS

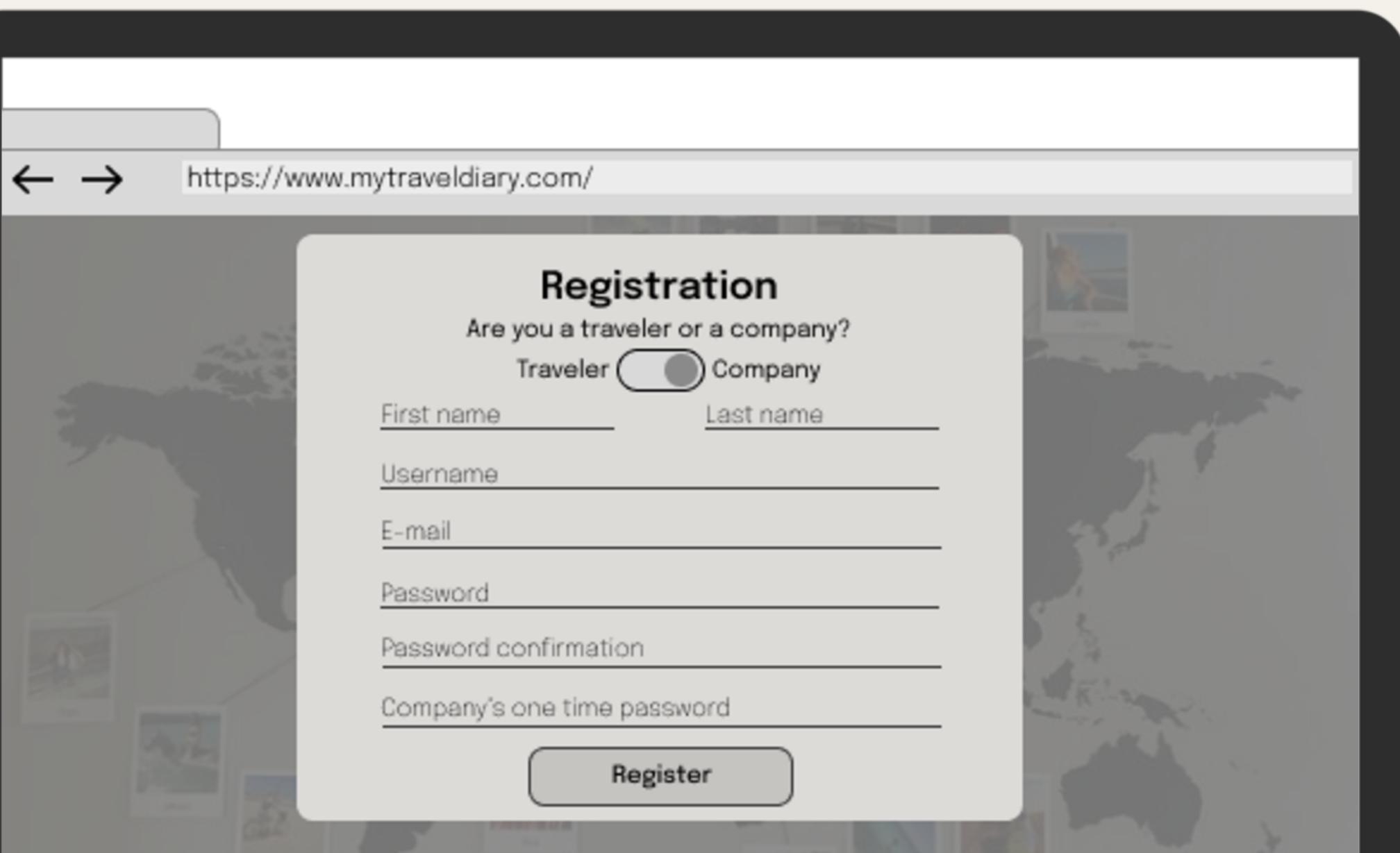
POSTS, COMMENTS & LIKES

NOTIFICATIONS

# UI design

UI design mockups of most important platform pages





← → https://www.mytraveldiary.com/

## Registration

Are you a traveler or a company?

Traveler  Company

First name \_\_\_\_\_ Last name \_\_\_\_\_

Username \_\_\_\_\_

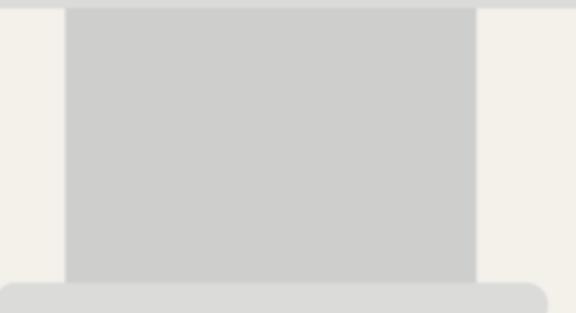
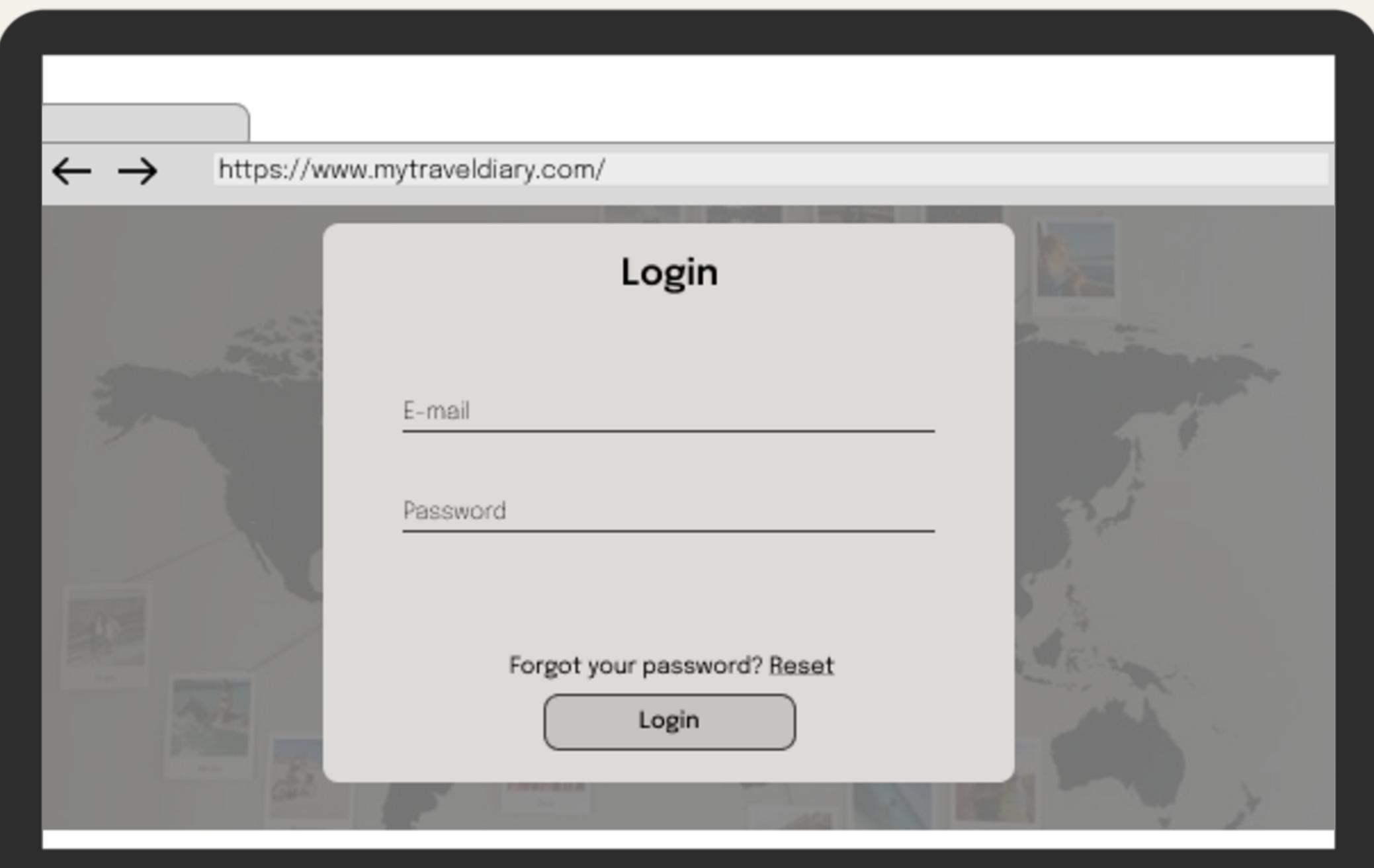
E-mail \_\_\_\_\_

Password \_\_\_\_\_

Password confirmation \_\_\_\_\_

Company's one time password \_\_\_\_\_

**Register**



The screenshot shows a mobile application interface for 'My Travel Diary'. The top navigation bar includes a back arrow, a forward arrow, and the URL <https://www.mytraveldiary.com/home>. The left sidebar, titled 'My Travel Diary', contains the following items: 'Challenges' (with a gear icon), 'Reward catalogue' (with a gift icon), 'Profile' (with a person icon), 'Log out' (with a power icon), and 'Customer support' (with a phone icon). The main content area is titled 'Posts' and displays a single post. The post includes a placeholder for a 'Photo' and a list of metadata: 'username', 'location(country, city)', and 'challenge name(link)'. Below this is a descriptive text block: '(Description) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras quis luctus sem, at vestibulum mauris. Integer volutpat, enim at condimentum ultricies, justo ipsum cursus velit, eget auctor enim nulla non quam. Curabitur vel urna id felis interdum tempor.' At the bottom of the post are engagement metrics: '10' likes (indicated by a heart icon), '7' comments (indicated by a speech bubble icon), and a share icon.

← → https://www.mytraveldiary.com/home

**My Travel Diary**

- Challenges
- Reward catalogue
- Profile
- Log out
- Customer support

**Posts**

username  
location(country, city)  
challenge name(link)

(Description) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras quis luctus sem, at vestibulum mauris. Integer volutpat, enim at condimentum ultricies, justo ipsum cursus velit, eget auctor enim nulla non quam. Curabitur vel urna id felis interdum tempor.

10 7

← → https://www.mytraveldiary.com/challenges

**My Travel Diary**

- Challenges
- Reward catalogue
- Profile
- Log out

**Customer support**

Country name #1

Country name #2

City name #1 in country #2

City name #2 in country #2

Challenge in city#2  
name  
Challenge type  
Challenge description... [See more](#)

Challenge in city#2  
name  
Challenge type  
Challenge description... [See more](#)

Challenge in city#2  
name  
Challenge type  
Challenge description... [See more](#)



<https://www.mytraveldiary.com/challenge#>

My Travel Diary

Challenges

Reward catalogue

Profile

Log out

Customer support

📍 City, Country

**Challenge name**

Challenge type(trivia, photo, activity)

Challenge difficulty(1-10)

(Description) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras quis luctus sem, at vestibulum mauris. Integer volutpat, enim at condimentum ultricies, justo ipsum cursus velit, eget auctor enim nulla non quam. Curabitur vel urna id felis interdum tempor.

📍 Awarded points

Status

Accept!

Country name #1

Country name #2

ame #1 in country #2

ame #2 in country #2

Challenge in city#2  
name

Challenge type

Challenge description...

See more

← → https://www.mytraveldiary.com/catalogue

**My Travel Diary**

- Challenges
- Reward catalogue**
- Profile
- Log out

**Reward title**

📍 org.location(coordinates)

⌚ price(in points)

(Description) Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras quis luctus sem, at vestibulum mauris. Integer volutpat, enim at condimentum ultricies, justo ipsum cursus velit, eget auctor enim nulla non quam. Curabitur vel urna id felis interdum tempor.

Photo

Purchase

Customer support

← → https://www.mytraveldiary.com/home

**My Travel Diary**

- Challenge
- Reward catalogue
- Profile
- Log out
- Customer support**

**Customer support**

Question or problem example #1

Question or problem example #2

Question or problem example #3

Enter your question or problem...

← → https://www.mytraveldiary.com/username

**My Travel Diary**

- Challenges
- Reward catalogue
- Profile**
- Log out
- Customer support

Hello, username!

My challenges >

Challenge name	Challenge name	Challenge name
Challenge type	Challenge type	Challenge type
Challenge description	Challenge description	Challenge description

Status

Location

Button

Completed!

Location

Create post

Location

In progress

Add submission

My posts >

Settings >

← → https://www.mytraveldiary.com/username

**My Travel Diary**

- Challenges
- Reward catalogue
- Profile**
- Log out

**Hello, company name!**

Notifications

Profile picture

My challenges Add new challenge

Challenge name	Challenge type	Challenge description
Location	(Number) people have completed this challenge	Location

My rewards >

Orders >

Settings >

← → https://www.mytraveldiary.com/home

**My Travel Diary**

- Posts
- Challenges
- Rewards
- Organizations**
- Users

New notification +

Log out

**Organizations**

[Add new organization](#)

**Company name #1**

Organization's representatives (list of this company's users):

- username(First name Last name)
- username(First name Last name)
- username(First name Last name)

**Company name #2**

Organization's representatives (list of this company's users):

- username(First name Last name)
- username(First name Last name)
- username(First name Last name)

**Company name #3**

Organization's representatives (list of this company's users):

- username(First name Last name)
- username(First name Last name)
- username(First name Last name)

**Company name #4**

Organization's representatives (list of this company's users):

- username(First name Last name)
- username(First name Last name)
- username(First name Last name)

← → https://www.mytraveldiary.com/username

My Trav... Profile picture

Challenge description

Challenge difficulty

Challenge type(trivia, photo, activity)

Challenge name

Location

Add photo(optional)

Number of points

Add text...

Create challenge

Custom...

The screenshot shows a web browser window with a challenge creation form. The URL in the address bar is https://www.mytraveldiary.com/username. The form fields are as follows:

- Location: A text input field.
- Challenge name: A text input field.
- Challenge type(trivia, photo, activity): A text input field.
- Challenge difficulty: A text input field.
- Challenge description: A text area with placeholder text "Add text...".
- Number of points: A text input field.
- Add photo(optional): A link to upload a photo.
- Create challenge: A button at the bottom right of the form.

On the left side of the browser, there is a sidebar with links: My Trav..., Challenge, Reward, Profile, and Custom... . On the right side, there are sections for Profile picture, Challenge description, and Challenge in progress.

← → https://www.mytraveldiary.com/username

My Trav... Profile picture  
Challen...  
Reward...  
Profile...  
Log out  
Custom...

**Reward title** <current title value>

**Location** <current location value>

**Price(in points)** <current price value>

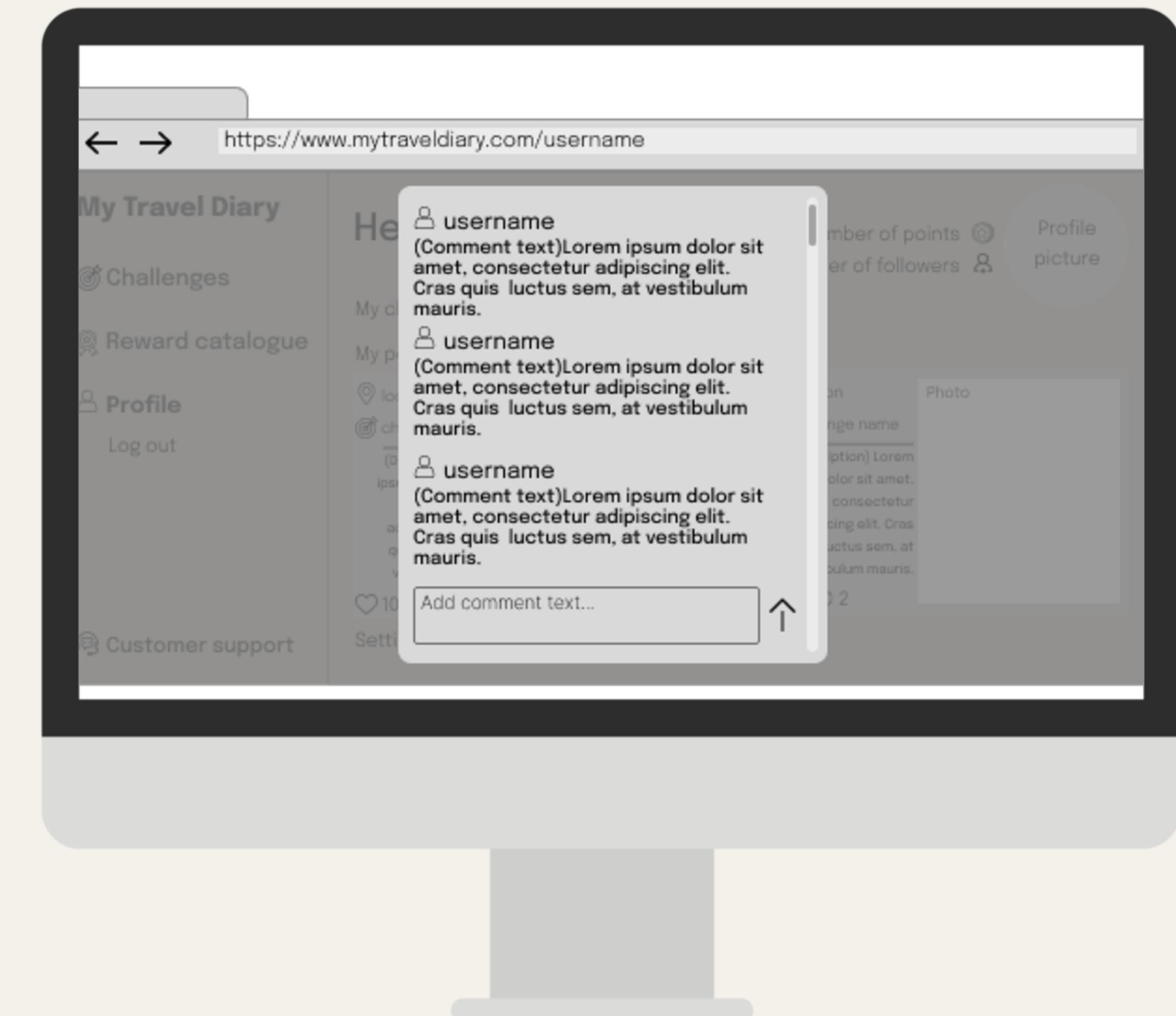
**Reward description**  
<current reward description>

**Status** Active ▾

**Change photo**

Active
Inactive
Redeemed

Delete reward Confirm changes

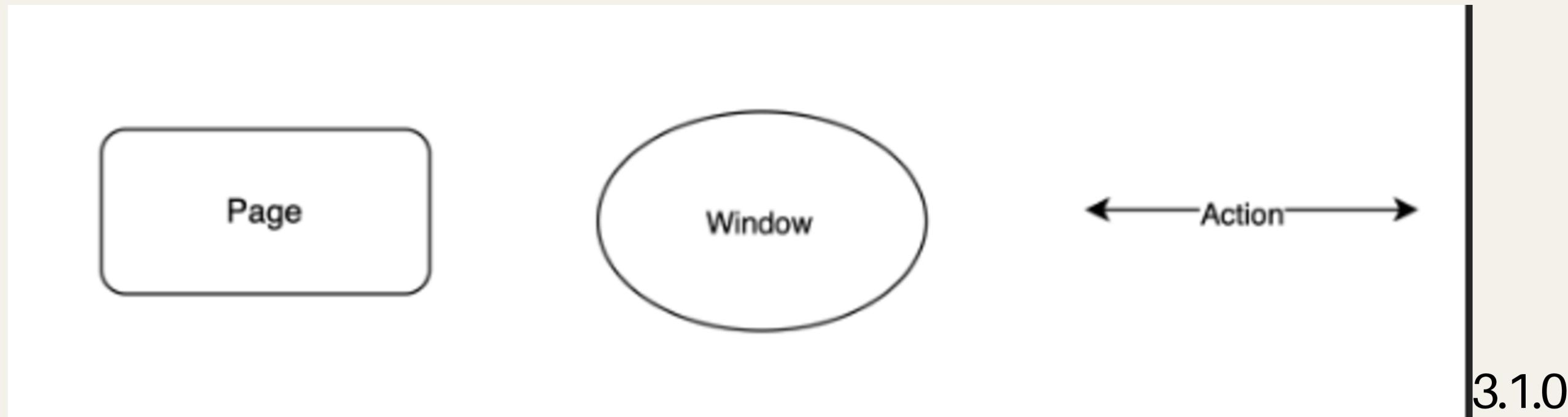


# Navigation Diagrams

This section provides an overview of how users navigate through the application, showcasing the pathways and interactions between different pages and features.

# Legend of Navigation Diagram

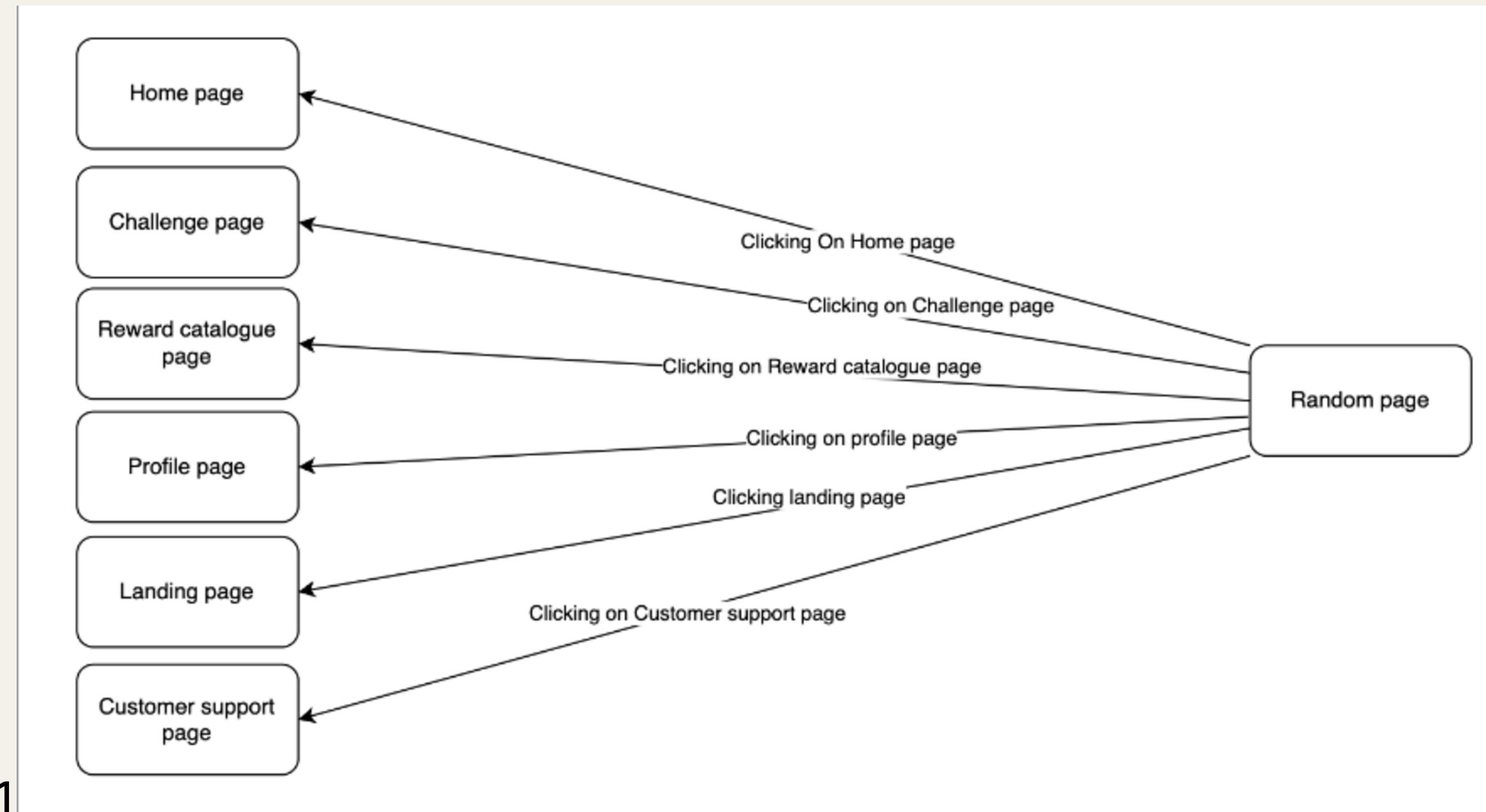
This legend explains the symbols used in the navigation diagrams. Each shape represents a specific element



# Menu navigation Diagram

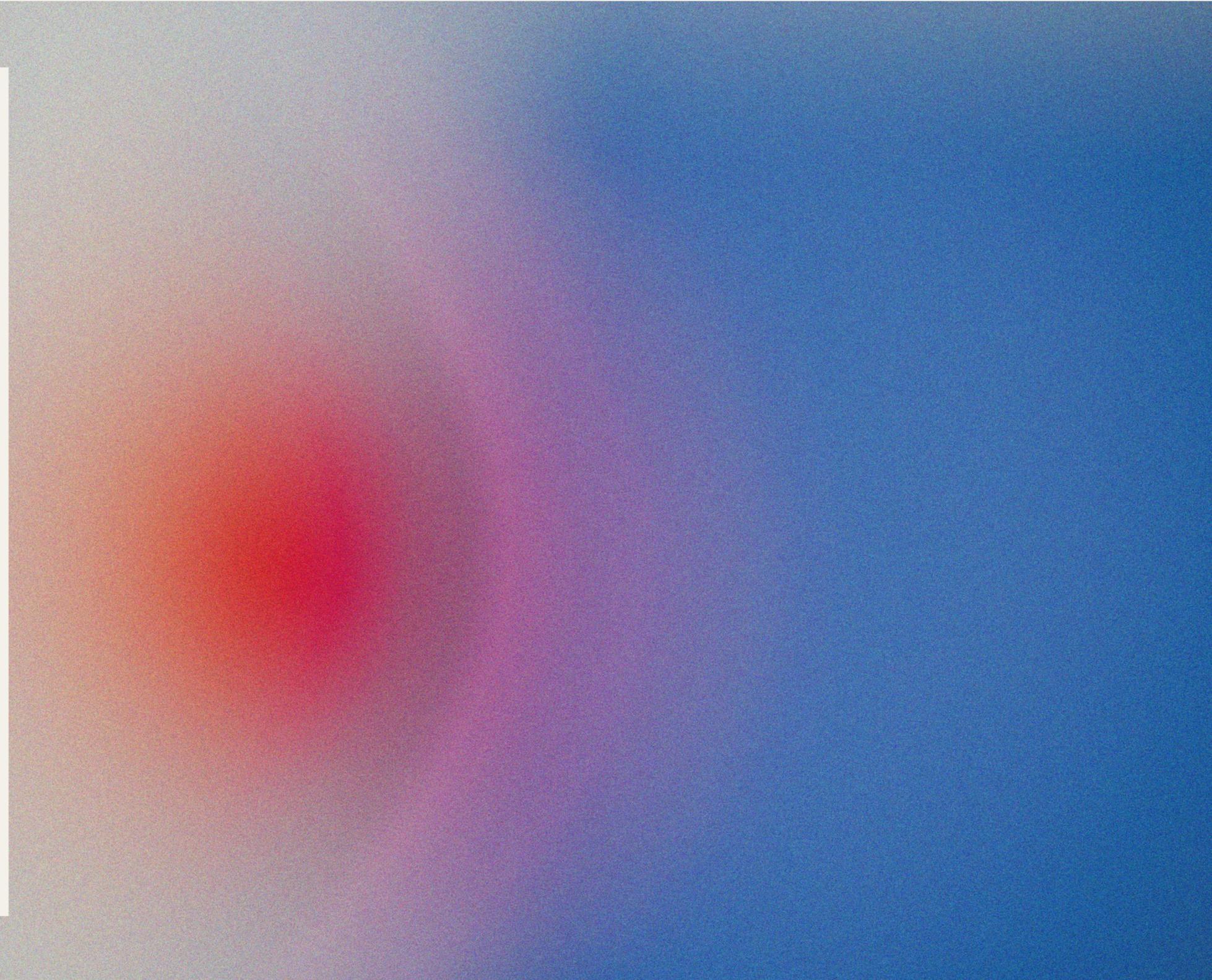
This menu navigation diagram illustrates the structure of our application's navigation. Each page is interconnected, allowing users to access any section

3.1.1



# Partial Functional Design

The section contains diagrams which describe the most important functionality of our system.

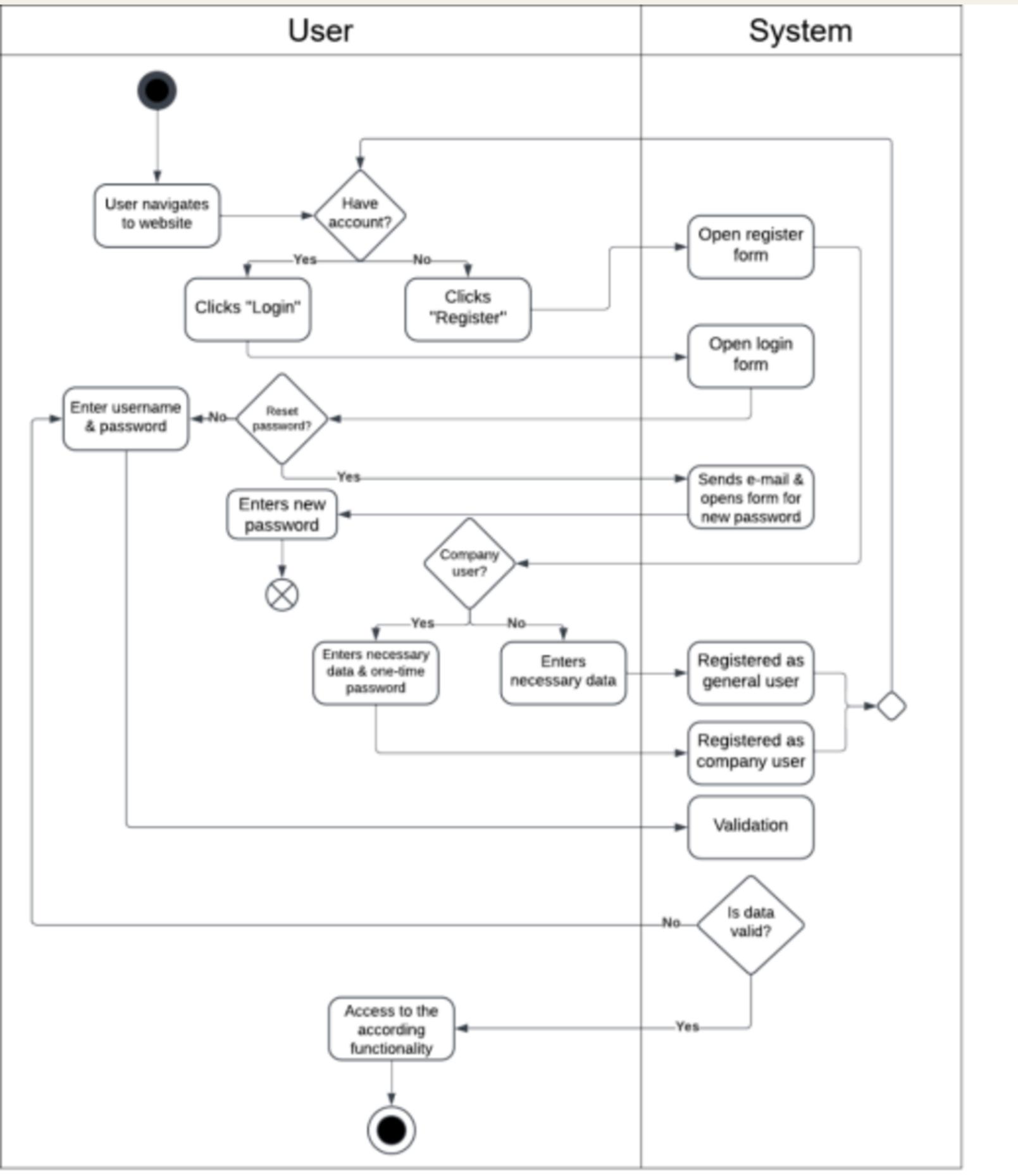


# User registration and login, activity diagram

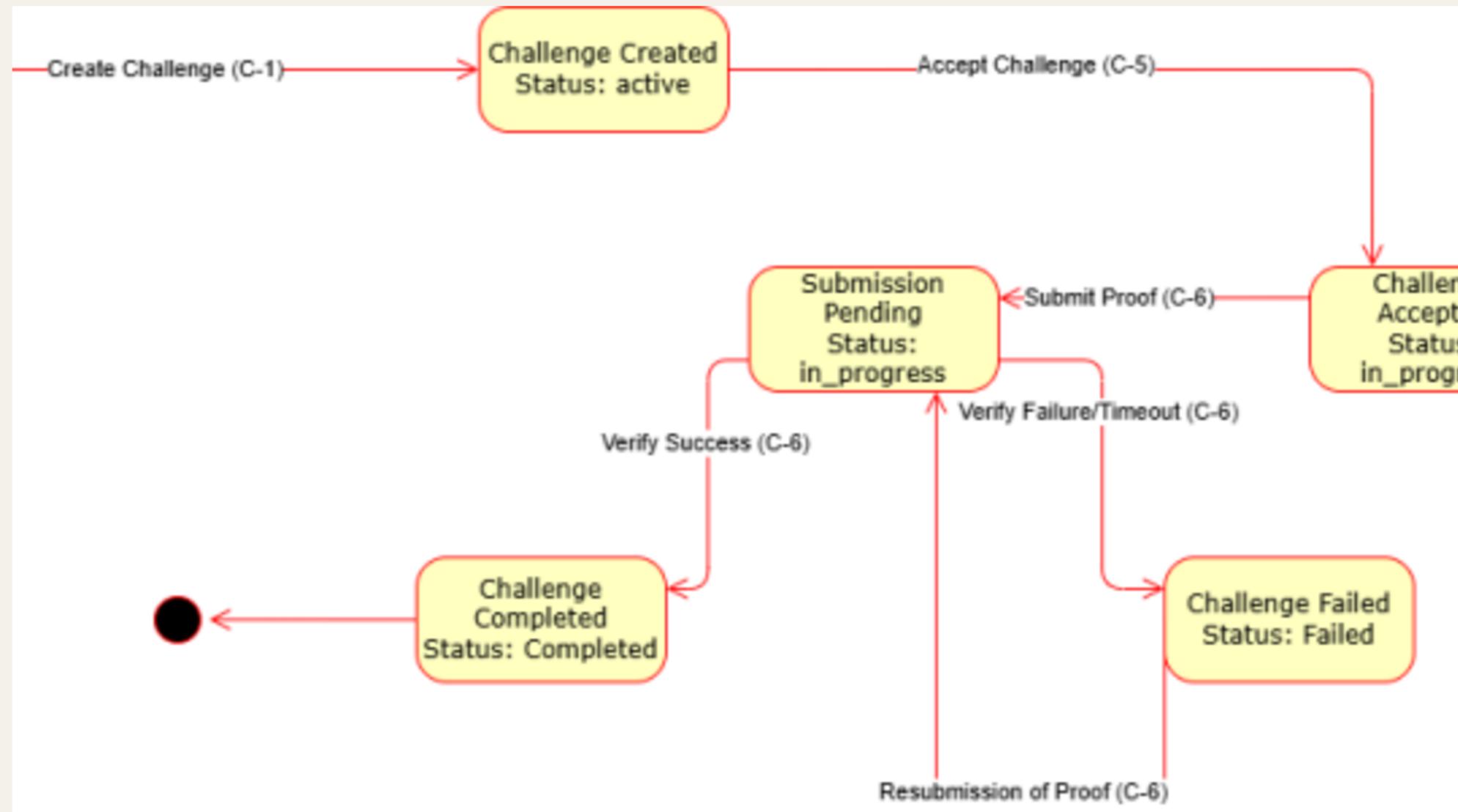
## 3.3.1

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The process of registration for general (traveler) and company user in the system and logging in, if the user has already registered



# Challenges module ,state transition diagram



The state transition diagram for the challenges module outlines the lifecycle of a challenge

# Point and order module, use case diagram

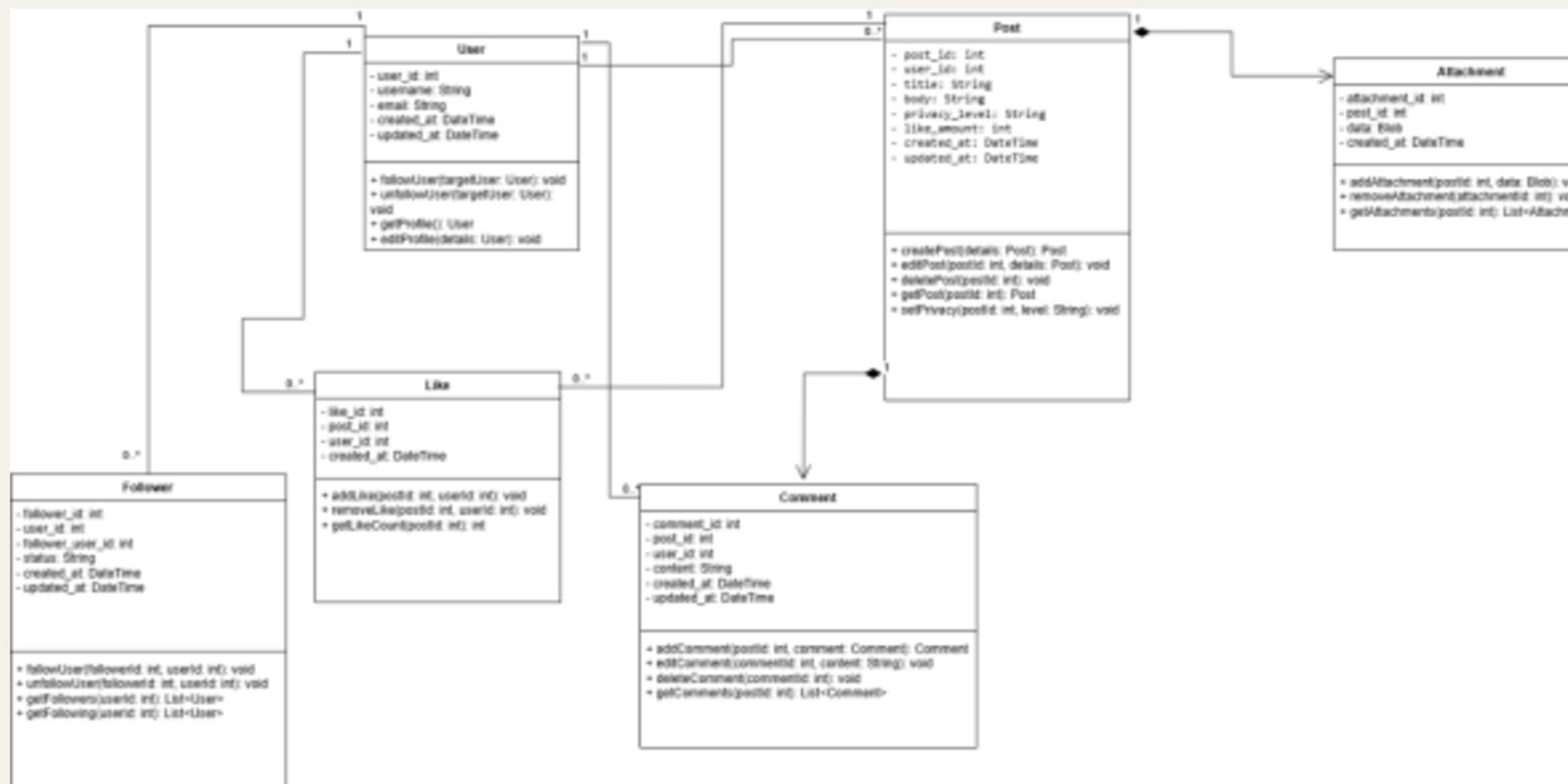


## 3.3.3

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The use case diagram shows the interactions between a General User, who completes challenges to earn points, purchases rewards, and places orders, and a Company User, who views and verifies these orders

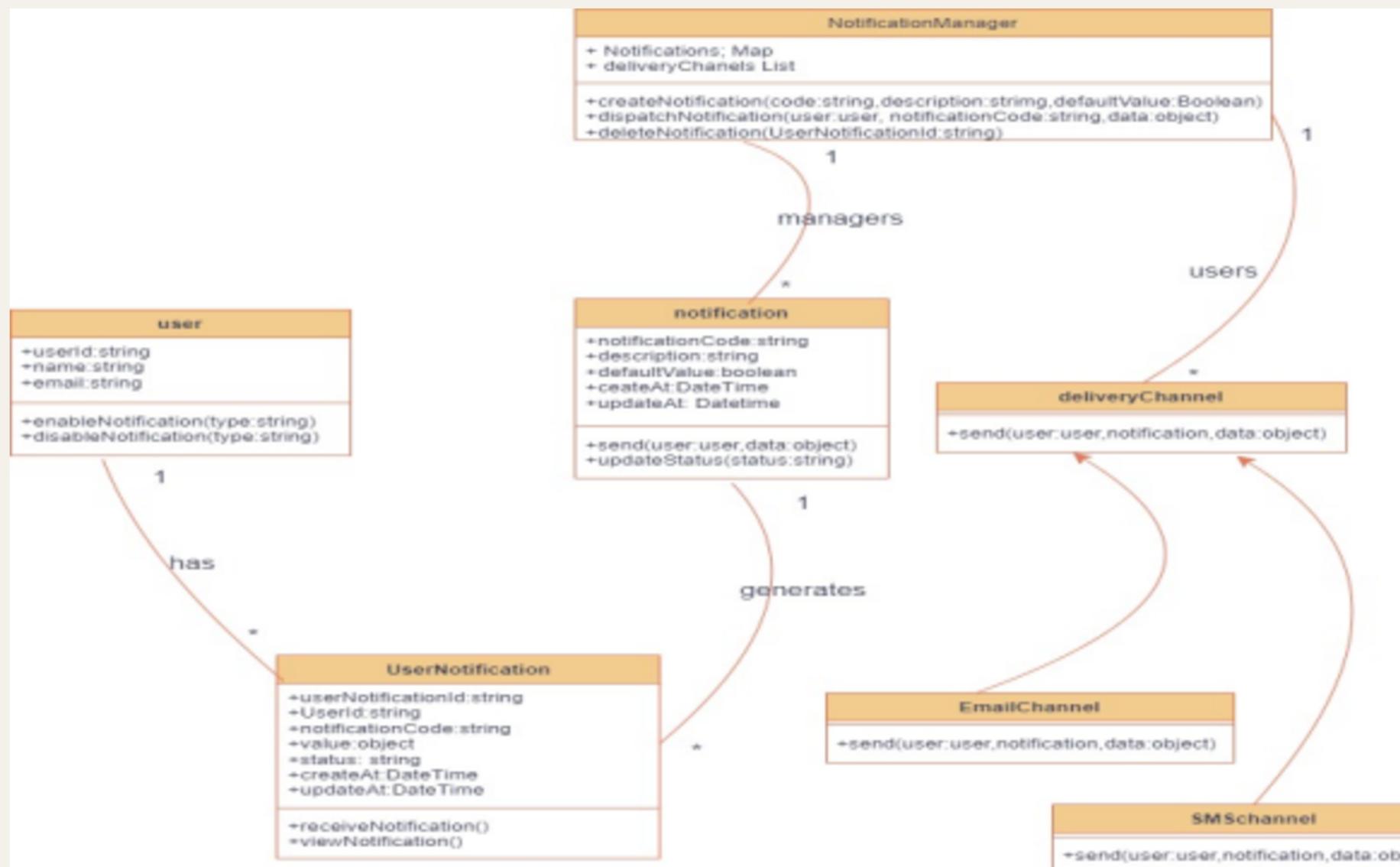
# Social media module, class diagram



The class diagram for the social media module depicts the structural relationships and attributes

It focuses on interactions between classes such as User, Post, Comment, Like, Attachment, and Follower.

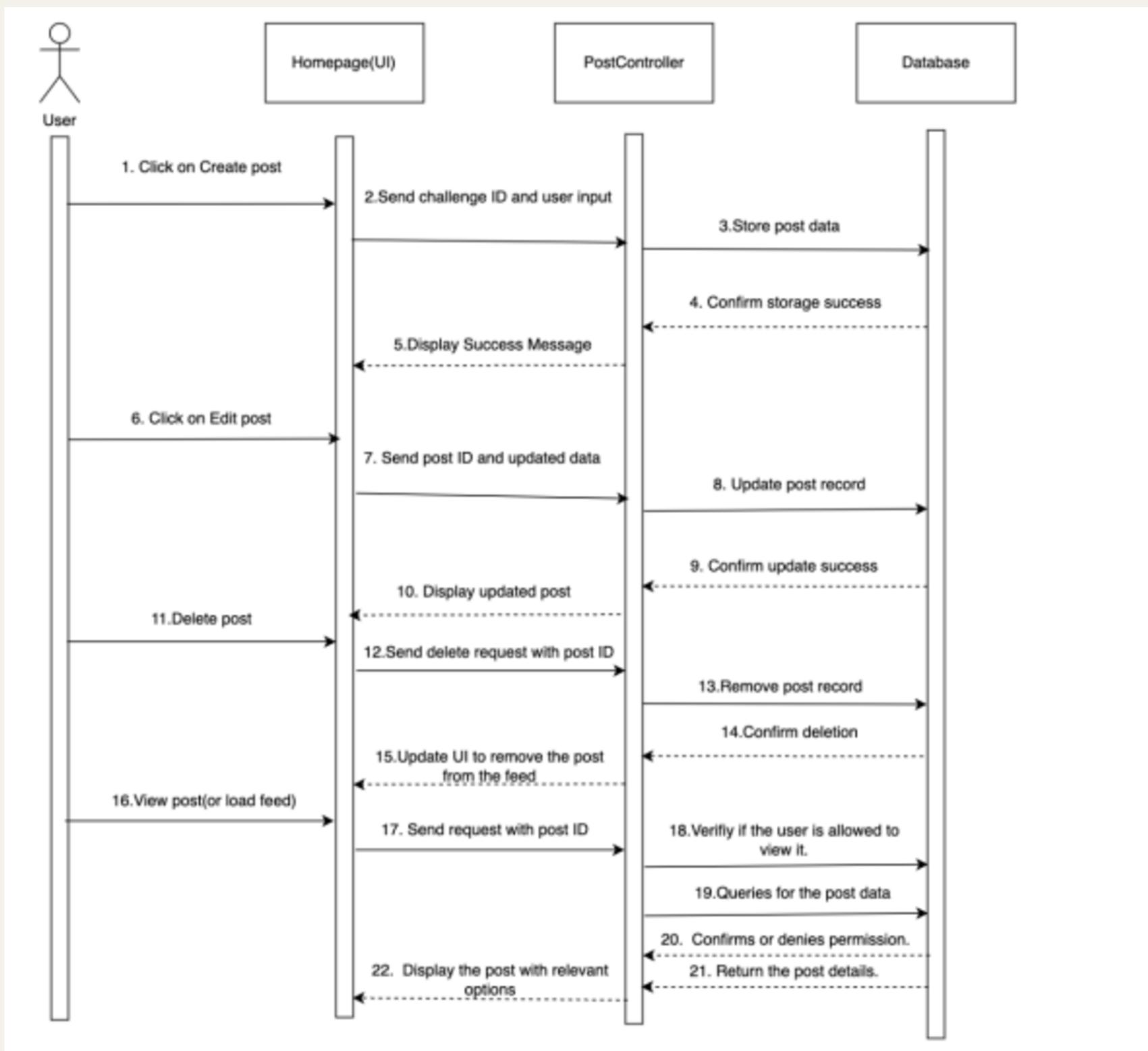
# Object diagram for notification functionalities



The diagram illustrates a notification management system

Relationships include users having multiple notifications, notifications linked to users, and the Notification Manager managing all delivery channels.

# Posts Module, Sequence Diagram



This diagram outlines the lifecycle of posts, showing interactions between the user, UI, backend (Post Controller), and database. Users can create, edit, delete, or view posts.

Thank you