User Authentication and Profile Management Document

1. User Authentication

Ensuring that users have a secure and personalized experience on the platform is crucial. Authentication plays a vital role in verifying user identity and granting appropriate access to their profiles and functionalities.

1.1 Sign-In

Users must log in to their accounts using valid credentials to gain access to personalized features and their learning progress. Users must enter their registered username and password in the provided login fields. The system validates the credentials against stored data and either grants access or displays an error message if the credentials are incorrect. If an incorrect username or password is entered, an error message informs the user that their login attempt was unsuccessful. If users forget their password, they can initiate the password recovery process by selecting "Forgot Password." A six-digit verification code is sent to the user's registered email address for identity verification. If the verification email is not received, users can request a resend after one minute. Once the code is entered and verified, users are prompted to create a new password. Users without an existing account are directed to the "Sign Up" page to create a new profile.

1.2 Sign-Up

New users must register an account to access the platform. The sign-up process involves creating a unique username, setting a secure password, and verifying the email address. Must be unique to prevent duplication. Allowed characters include English letters (A-Z, a-z), digits (0-9), and underscores (_). Username length must be between 5 and 20 characters. If the chosen username is already taken, an error message prompts the user to select a different one. Passwords must contain at least one uppercase letter, one special character, and one digit. Length

must be between 6 and 15 characters. The system provides real-time feedback indicating password strength (Weak, Medium, Strong). The entered password must match the confirmation field; otherwise, an error message is displayed. Users must provide a valid unused email address during registration. A verification email is sent containing a confirmation link. The user must click on the link to verify the email before gaining access to their account.

1.3 Forgot Password

Password Reset Process: Users must enter their registered email address in the Forgot Password field. A six-digit verification code is sent to their email. The user enters the verification code in the designated field for identity verification. Once verified, the system prompts the user to set a new password. The new password must adhere to the platform's password security requirements and be different from the previous password. If the email is not received, users can request a resend after one minute.

2. Profile Management

Users have full control over their profiles, privacy settings, and customization options, allowing them to tailor their experience on the platform. By default, profiles are set to public, allowing other users to view streaks, levels, and scores. Users can switch to private mode, restricting visibility of their achievements to themselves only. Users can personalize their profiles by uploading a profile picture. Supported formats: PNG, JPEG, JPG. Maximum file size: 5 MB. The image can be uploaded or replaced using an image picker tool. Once set, the username cannot be changed after the initial setup. Users can update their password at any time by accessing their profile settings. The new

password must meet the original security requirements and must be different from the previous password. Users can also view a list of their enrolled courses.

3. Profile Features

Profiles provide insights into users' learning progress and achievements, motivating them to stay engaged. A user's profile page displays their username, avatar, number of friends, and options to navigate to their profile settings if it's their own profile or add/remove as a friend if it's another user's profile. Users can track their learning journey based on quiz completions (total number of quizzes completed), course advancements (achievements received once a milestone is hit, e.g., "100-day streak," "50 perfect score quizzes," etc.), and streak maintenance (number of consecutive days of learning; completing the first quiz in a day increments the streak by 1). Users can monitor their progress through a list of enrolled courses and course completion percentage to measure learning progress. Users can also track quiz progress through a list of completed quizzes and quiz completion accuracy. Users can see their friends and manage them by viewing a list of the users they are connected with and removing friends if desired. Sorting options include name (alphabetical order), activity (most recent activity displayed first), and date added (newest friends appear first). Users can view their own friend list when accessing their profile. When visiting another user's profile, they can see that user's friend list. Users can see all their details, including learning progress, achievements, and friends list when viewing their own profile. When viewing a public profile, users can see another user's learning progress, achievements, and friends list. When viewing a private profile, users can only see the basic profile details.

4. Leaderboard System

Competitive leaderboards encourage user engagement and motivation through rankings. The global leaderboard displays the top 100 users based on ranking criteria, such as quiz completion total (total number of completed quizzes where the grade is above 50%) and quiz performance accuracy (total accuracy based on all quizzes, regardless of the grade). Leaderboard entry details include username, progress percentage, accuracy percentage, and rank index. The friends leaderboard functions similarly to the global leaderboard but displays only friends, with ranking criteria remaining the same.

5. Search Functionality

Users can discover and connect with others through search and recommendation features. Users can search for others by username, with search results displaying profile pictures, usernames, and mutual friends if applicable. Friend suggestions are based on shared courses and mutual friends.