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.

Summary:

- Users log in using a username and password.
- Error messages appear for incorrect credentials.
- Forgot Password feature sends a six-digit verification code via email.
- Users can request a new verification code after one minute.
- Users without an account are directed to the Sign-Up page.

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.

Summary:

- Unique usernames (5-20 characters, letters, numbers, underscores).
- Real-time password strength feedback (Weak, Medium, Strong).
- Passwords require an uppercase letter, special character, and number.
- Email verification link must be clicked before account activation.

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.

Summary:

- Six-digit verification code is sent via email.
- Users must set a new password different from the old one.
- Users can resend verification codes 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. As well users will be able to select their activity status(online/offline). 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.

Summary:

- Profiles default to public, but users can switch to private mode.
- Users can set their activity status (online, offline, last active).
- Profile picture uploads support PNG, JPEG, and JPG (max size: 5 MB).
- Usernames cannot be changed after account creation.
- Passwords can be updated but must follow security rules.
- List of enrolled courses is accessible from the profile.

3. User Profile Overview and Management

Each user has a profile page that displays their username, avatar, and the number of friends they have. When viewing their own profile, users can access their profile settings to make changes as needed. When visiting another user's profile, they have the option to add or remove that user as a friend. Users can manage their friend list by viewing all the users they are connected with and removing friends if desired. Additionally, each profile displays an activity status, showing the last time a user was active and indicating whether they are currently online or offline.

Summary:

- User profiles display username, avatar, and friend count.
- Users can add/remove friends from other profiles.
- Friend list management allows viewing and removing friends.
- Activity status shows online/offline status and last active time.

4. Learning Progress and Achievements Tracking

Users can track their learning journey through various progress indicators that reflect their engagement and accomplishments. Quiz completions are displayed, showing the total number of quizzes a user has finished. Course advancements are marked by achievements that are unlocked upon reaching specific milestones, such as maintaining a 100-day streak or completing 50 quizzes with a perfect score. Streak maintenance keeps track of the number of consecutive days a user has engaged in learning, with the streak increasing when they complete their first quiz of the day. Additionally, users can monitor their enrolled courses and measure their learning progress through course completion percentages. A list of completed quizzes and quiz completion accuracy further helps users assess their progress.

Summary:

- Track quiz completions (total quizzes completed).
- Course advancements unlock achievements (e.g., 100-day streak, 50 perfect quizzes).
- Streak maintenance records consecutive learning days.
- Users can monitor enrolled courses and their completion percentages.
- Quiz completion accuracy helps track performance.

5. Profile Visibility and Friend List Management

Users have full access to their profile, where they can view all their details, including their learning progress, achievements, and friend list. When visiting another user's profile, the visibility of information depends on the privacy settings of that profile. If the profile is public, the user's learning progress, achievements, and friend list are displayed. If the profile is private, only basic profile details are visible. Users can also organize and manage their friend list through sorting options, which allow them to arrange friends alphabetically, by most recent activity, or by the date they were added. When visiting another user's profile, their friend list is visible unless restricted by privacy settings.

Summary:

- Public profiles display learning progress, achievements, and friends.
- Private profiles show only basic details.
- Sorting options include alphabetical order, recent activity, and date added.
- Friend lists are visible unless restricted by privacy settings.

6. 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). The user can choose a specific course for which to see the leaderboard. Leaderboard entry details include username, progress percentage, accuracy percentage, and rank index. The leaderboard will be automatically updated every 30 minutes. The friends leaderboard functions similarly to the global leaderboard but displays only friends, with ranking criteria remaining the same.

Summary:

- Global leaderboard ranks top 100 users based on quiz completions and accuracy.
- Course-specific leaderboard allows filtering rankings by course.
- Leaderboard updates automatically every 30 minutes.
- Friends leaderboard ranks only connected friends

7. Search Functionality

Users can discover and connect with others through search and recommendation features. Users can search for others by username, with queries limited to 20 characters and a minimum of 3 characters required to trigger results. Each search result displays the profile picture, the username, and the mutual friends if applicable. Invalid searches (under 3 characters) display a prompt ("Enter at least 3 characters to search"). Friend suggestions are based on shared courses and mutual friends.

Summary:

- Search by username (3-20 characters required).
- Displays profile picture, username, and mutual friends.
- Friend suggestions based on shared courses and mutual friends.
- Invalid searches prompt a message ("Enter at least 3 characters").