**1. User Registration**

• **Actor**: User

• **Description**: User registers with email, password, and basic details.

• **Precondition**: User is not registered.

• **Postcondition**: User account is created, and they are logged in.

• **Flow**:

1. User provides email, password, and other required information.

2. System validates input.

3. System creates an account and logs the user in.

**2. User Login**

• **Actor**: User

• **Description**: User logs in with email and password.

• **Precondition**: User is registered.

• **Postcondition**: User is authenticated and redirected to the home page.

• **Flow**:

1. User enters email and password.

2. System verifies credentials.

3. User is granted access.

**3. User Logout**

• **Actor**: User

• **Description**: User logs out from their account.

• **Precondition**: User is logged in.

• **Postcondition**: User session is terminated.

• **Flow**:

1. User clicks the logout button.

2. System ends the user session.

3. User is redirected to the login page.

**4. Edit Profile**

• **Actor**: User

• **Description**: User edits their personal profile information.

• **Precondition**: User is logged in.

• **Postcondition**: Profile is updated.

• **Flow**:

1. User navigates to the profile section.

2. User edits their details (e.g., name, email, profile picture).

3. System updates the profile and saves changes.

**5. Fill Personal Questionnaire**

• **Actor**: User

• **Description**: User fills out a fitness-related questionnaire (e.g., goals, preferences).

• **Precondition**: User is logged in.

• **Postcondition**: Questionnaire data is saved.

• **Flow**:

1. User accesses the questionnaire.

2. User fills in the required information.

3. System stores the data.

**6. View History**

• **Actor**: User

• **Description**: User views their workout history or activity log.

• **Precondition**: User has logged previous activities.

• **Postcondition**: History is displayed.

• **Flow**:

1. User navigates to the history section.

2. System retrieves and displays historical data.

**7. Map Search for Venues**

• **Actor**: User

• **Description**: User searches for nearby fitness venues using a map interface.

• **Precondition**: User is logged in.

• **Postcondition**: Search results are displayed on the map.

• **Flow**:

1. User enters search criteria.

2. System displays venues on the map based on the search.

**8. View Venue Details**

• **Actor**: User

• **Description**: User views detailed information about a fitness venue.

• **Precondition**: User selects a venue.

• **Postcondition**: Venue details are displayed.

• **Flow**:

1. User clicks on a venue from the map.

2. System retrieves and shows venue details (location, amenities, etc.).

**9. Reserve Venue**

• **Actor**: User

• **Description**: User books a venue for a workout session.

• **Precondition**: Venue is available.

• **Postcondition**: Venue is reserved for the user.

• **Flow**:

1. User selects a time slot and date.

2. System checks availability and confirms the reservation.

**10. Start Workout**

• **Actor**: User

• **Description**: User starts a workout session.

• **Precondition**: User is logged in.

• **Postcondition**: Workout session is started, and progress is tracked.

• **Flow**:

1. User clicks on the “Start Workout” button.

2. System begins tracking the workout session.

**11. AI Video Correction**

• **Actor**: User

• **Description**: User receives real-time feedback on their workout form using AI video analysis.

• **Precondition**: User starts a workout.

• **Postcondition**: Feedback is provided during the session.

• **Flow**:

1. User enables the camera during the workout.

2. System analyzes form and provides correction tips.

**12. Log Workout**

• **Actor**: User

• **Description**: User logs a completed workout session.

• **Precondition**: Workout session is completed.

• **Postcondition**: Workout details are saved.

• **Flow**:

1. System automatically logs workout details upon completion.

2. User can also manually log additional information (e.g., weights used, duration).

**13. AI-Generated Fitness Plan**

• **Actor**: User

• **Description**: AI generates a custom fitness plan based on the user’s preferences and history.

• **Precondition**: User has completed the questionnaire.

• **Postcondition**: Fitness plan is created and displayed.

• **Flow**:

1. System uses AI to analyze user data.

2. A personalized fitness plan is generated and recommended to the user.

**14. Query Fitness Plan**

• **Actor**: User

• **Description**: User views their current fitness plan.

• **Precondition**: AI has generated a fitness plan.

• **Postcondition**: Fitness plan is displayed.

• **Flow**:

1. User navigates to the fitness plan section.

2. System retrieves and shows the fitness plan details.

**15. Modify Fitness Plan**

• **Actor**: User

• **Description**: User modifies their existing fitness plan.

• **Precondition**: Fitness plan exists.

• **Postcondition**: Changes to the plan are saved.

• **Flow**:

1. User edits the fitness plan (e.g., adjusts goals or exercises).

2. System saves the updated plan.

**16. Create a Post**

• **Actor**: User

• **Description**: User creates a post to share their experience or progress.

• **Precondition**: User is logged in.

• **Postcondition**: Post is published.

• **Flow**:

1. User writes a post and attaches media (images, videos, etc.).

2. System publishes the post to the timeline.

**17. Browse Posts**

• **Actor**: User

• **Description**: User browses through posts from other users.

• **Precondition**: Posts exist on the platform.

• **Postcondition**: Posts are displayed.

• **Flow**:

1. User scrolls through the posts section.

2. System loads and displays posts.

**18. Like and Collect Posts**

• **Actor**: User

• **Description**: User likes or saves posts to their collection.

• **Precondition**: Post is available.

• **Postcondition**: Like or save is registered.

• **Flow**:

1. User clicks the “Like” or “Save” button on a post.

2. System updates the interaction count.