REQUIREMENTS

Requirement 1: Home Page on App Launch

1. **On app launch**, the user is directed to the **Home Page**.
2. The **Home Page** consists of the following components:
   - **App Bar (Top of the screen)**:
     - **Left Section**: Displays the **screen name** (e.g., "Home").
     - **Center Section**: Displays a **row of buttons** with labels for the following:
       - **Home Feed** (default selected on launch).
       - **Create Post**.
       - **Groups**.
     - **Right Section**: Displays a **user circle/avatar**.
       - If the user is **logged in**, the circle displays the user's profile picture or initials.
       - If the user is **not logged in**, the circle displays a default icon (e.g., a generic user icon).
   - **Content Area**:
     - Dynamically updates based on which button is pressed in the App Bar:
       - **Home Feed Button**: Displays the **Home Feed** (default screen, Requirement 2).
       - **Create Post Button**: Opens a **modal popup** (Requirement 3) for creating a post.
       - **Groups Button**: Displays the **Groups Page** (Requirement 4) content.
3. **Visual Highlighting**:
   - The button corresponding to the current screen is **visually highlighted**.
   - Highlighting includes:
     - A **slightly different color** for the button background.
     - The **label text** is **bolded**.
   - When a different button is pressed, the highlighting updates accordingly:

- The newly selected button is highlighted.
- The previously selected button returns to its default appearance.

4. **Content Visibility**:
   - If the user is **logged in**, the Home Feed displays:
     - Posts from the user's network (e.g., friends, followed groups, or personalized content).
     - Public posts (e.g., posts marked as public by other users).
   - If the user is **not logged in**, the Home Feed displays only **public posts**.

5. **Navigation Rules**:
   - Tapping on any button in the **center section of the App Bar** updates the **Content Area** accordingly:
     - **Home Feed**: Displays the feed (default screen).
     - **Create Post**: Opens a **modal popup** for creating a post.
     - **Groups**: Displays the **Groups Page** content.
   - The **Create Post** and **Groups** screens require login. If the user is not logged in, redirect the user to the **login screen** (Requirement 7).

Requirement 2: Feed Structure and Functionality

1. **Feed Composition**:
   - The **Feed** consists of a list of posts displayed in a vertical, single-column layout (similar to Twitter).
   - Each post contains the following elements:
     - **Title** (mandatory):
       - Displayed at the top of the post.
       - Styled in an emphasized format (e.g., larger font size, bold, or a distinct color) to differentiate it from the content.
     - **Content** (optional):
       - Can be either **text** or an **image**.
       - If text, it is displayed below the title in a standard font size.
       - If an image, it is displayed below the title and scaled to fit the width of the post container while maintaining aspect ratio.
     - **Tag** (mandatory):
       - Displays a category label for the post.
       - Possible values: **Food**, **Workout**, or **Misc**.
       - Styled with a distinct background color or icon for quick visual identification.
     - **Visibility** (mandatory):
       - Indicates the audience for the post.
       - Possible values: **Private**, **Followers**, or **Public**.
       - Displayed as a small icon or text label near the post metadata (e.g., timestamp).
2. **Post Layout and Behavior**:
   - Posts are displayed in **chronological order** (newest first).
   - The Feed supports **infinite scrolling**: as the user scrolls down, older posts are loaded dynamically.
   - Each post has a **timestamp** indicating when it was created, displayed in a relative format (e.g., "2 hours ago").
3. **Interactivity**:
   - **Reactions**:
     - Users can react to posts using predefined reaction options (e.g., like, love, laugh, etc.).

- The reaction count is displayed below the post content.
  - ○ **Comments**:
    - Users can comment on posts.
    - When the user presses the **"Comment" button**:
      - A **comment form** appears below the post.
      - The form includes:
        - A **text input field** for the comment content (placeholder: "Write a comment...").
        - A **"Post Comment" button** to submit the comment.
        - A **"Cancel" button** to close the form without posting.
    - Once a comment is posted:
      - It is displayed in a **collapsible section** below the post.
      - Each comment includes the commenter's **name**, **avatar**, and **timestamp**.
4. **Content Visibility Rules**:
   - ○ **Public Posts**: Visible to all users, including logged-out users.
   - ○ **Followers Posts**: Visible only to users who are following the post creator.
   - ○ **Private Posts**: Visible only to the post creator.

Requirement 3: Create Post Modal

1. **Modal Appearance and Behavior**:
   - The **Create Post** feature is displayed as a **centered popup (modal)** overlaying the current screen.
   - The modal has a semi-transparent background that dims the rest of the screen, ensuring focus on the modal.
   - The modal can be closed by:
     - Tapping the **Cancel** button.
     - Tapping outside the modal.
2. **Modal Layout and Components**:
   - **Title Field**:
     - A text input field labeled "Title" (placeholder: "Enter a title...").
     - Maximum length: **50 characters** (UTF-8 encoded).
     - Display a character counter below the field (e.g., "X/50").
   - **Content Section**:
     - A **rich text editor** or **multimedia input area** for the post content.
     - Supports:
       - **Text**: A text area with basic formatting options (e.g., bold, italics, links, max 200 chars).
       - **Image**: An "Add Image" button that allows users to upload or select an image from their device.
     - The content is optional, and the user can leave it blank.
   - **Visibility Selection**:
     - A **dropdown menu**.
     - Options: **Private**, **Followers**, or **Public**.
     - Default selection: **Public**.
   - **Tag Selection**:
     - A set of **selectable buttons** or **toggle buttons** labeled with the available tags: **Food**, **Workout**, and **Misc**.
     - Only one tag can be selected at a time.
     - Default selection: **Misc**.
   - **Post Button**:
     - Placed at the **bottom-right corner** of the modal.
     - Label: "Post".
     - Enabled only when the **Title** field is filled.

- ○ **Cancel Button**:
    - ■ Placed at the **bottom-left corner** of the modal.
    - ■ Label: "Cancel".
    - ■ Closes the modal without saving or posting.
3. **Validation and Error Handling**:
    - ○ If the user tries to post without a title, display an error message (e.g., "Title is required").
    - ○ If the content exceeds limits (e.g., image size), display an appropriate error message.
4. **Post Submission**:
    - ○ When the user clicks "Post":
        - ■ Validate the input (ensure title is present and within limits).
        - ■ Save the post and close the modal.
        - ■ Refresh the Feed to display the new post (if applicable based on visibility).

Requirement 4: Groups Page

1. **Page Layout**:
   ○ The **Groups Page** consists of two main sections:
     ■ **Left Section (Drawer Menu)**:
       ■ Displays a list of **groups** the user is a member of.
       ■ Each group is represented by its **name** and optionally an **icon** or **thumbnail**.
       ■ Includes a **"New Group"** button at the bottom of the drawer menu.
         ■ Clicking the **"New Group"** button opens a **popup modal** for creating a new group (Requirement 5).
     ■ **Center Section (Feed)**:
       ■ Displays a **feed of posts** from all groups the user is in.
       ■ Posts are displayed in a vertical, single-column layout (similar to the Home Feed).
       ■ Each post includes:
         ■ **Title** (mandatory, emphasized).
         ■ **Content** (optional: text or image).
         ■ **Tag** (Food, Workout, or Misc).
         ■ **Timestamp** (relative format, e.g., "2 hours ago").
         ■ **Reactions** and **Comments** (interactive, as described in Requirement 2).

2. **Behavior**:
   ○ **Default View**:
     ■ When the user navigates to the Groups Page, the **left drawer** displays all groups the user is a member of.
     ■ The **center feed** displays a **combined feed of posts** from all groups the user is a member of (sorted by timestamp, newest first).
   ○ **Group Selection**:
     ■ When the user clicks on a specific group in the **left drawer**:
       ■ The user is navigated to the **Group Page** for that specific group (Requirement 6).

3. **Content Visibility Rules**:

- Posts in the Groups Page are **always visible only to members of the group** they belong to.
- If a user is not a member of a group, they cannot see any posts from that group.
4. **Interactivity**:
   - Users can **react** and **comment** on posts in the feed, as described in Requirement 2.
   - Clicking the **"New Group"** button opens a **popup modal** for creating a new group.

Requirement 5: New Group Popup

1. **Modal Appearance and Behavior**:
   ○ The **New Group** feature is displayed as a **centered popup (modal)** overlaying the current screen.
   ○ The modal has a semi-transparent background that dims the rest of the screen, ensuring focus on the modal.
   ○ The modal can be closed by:
      ■ Tapping the **Cancel** button.
      ■ Tapping outside the modal.
2. **Modal Layout and Components**:
   ○ **Title Field**:
      ■ A text input field labeled "Group Title" (placeholder: "Enter a group title...").
      ■ Maximum length: **50 characters** (UTF-8 encoded).
      ■ Display a character counter below the field (e.g., "X/50").
   ○ **Description Field (Optional)**:
      ■ A text area labeled "Description" (placeholder: "Add a description...").
      ■ Maximum length: **200 characters** (UTF-8 encoded).
      ■ Display a character counter below the field (e.g., "X/200").
   ○ **Group Image (Optional)**:
      ■ An **"Add Image"** button that allows users to upload or select an image from their device.
      ■ Once uploaded, the image is displayed as a thumbnail within the modal.
      ■ Include a **"Remove Image"** option to clear the uploaded image.
   ○ **Invite Users Section**:
      ■ A searchable input field labeled "Invite Users" (placeholder: "Search users to invite...").
      ■ As the user types, display a dropdown list of matching users (based on name or username).
      ■ Selected users are displayed as **chips/tags** below the input field, with an option to remove them (e.g., an "X" icon).
   ○ **Create Group Button**:
      ■ Placed at the **bottom-right corner** of the modal.

- Label: "Create Group".
- Enabled only when the **Title** field is filled.
  - **Cancel Button**:
    - Placed at the **bottom-left corner** of the modal.
    - Label: "Cancel".
    - Closes the modal without saving or creating the group.
3. **Validation and Error Handling**:
   - If the user tries to create a group without a title, display an error message (e.g., "Group title is required").
   - If the description or image exceeds limits (e.g., character count or file size), display an appropriate error message.
4. **Group Creation**:
   - When the user clicks **"Create Group"**:
     - Validate the input (ensure title is present and within limits).
     - Create the group with the provided details (title, description, image, and invited users).
     - Close the modal and refresh the **Groups Page** to display the newly created group in the left drawer.

Requirement 6: Group Page

1. **Page Layout**:
   ○ The **Group Page** is divided into the following sections:
     ■ **Header Section**:
       ■ Displays the **group image** (if it exists) as a large banner at the top.
       ■ Below the image (or in its place, if no image exists), displays the **group title** in an emphasized format (e.g., large font size, bold).
       ■ Displays the **group description** below the title (if it exists).
     ■ **Members Section**:
       ■ Displays a **collapsible list of members**.
       ■ By default, the list is collapsed, showing a summary (e.g., "X members").
       ■ When expanded, the list displays:
         ■ Each member's **name** and **avatar**.
         ■ For **admins**, a **remove button** (e.g., a trash icon) next to each member (except themselves).
     ■ **Posts Section**:
       ■ Displays a **feed of posts** specific to the group.
       ■ Posts are displayed in a vertical, single-column layout (similar to the Home Feed).
       ■ Each post includes:
         ■ **Title** (mandatory, emphasized).
         ■ **Content** (optional: text or image).
         ■ **Tag** (Food, Workout, or Misc).
         ■ **Timestamp** (relative format, e.g., "2 hours ago").
         ■ **Reactions** and **Comments** (interactive, as described in Requirement 2).
     ■ **Action Buttons**:
       ■ For **normal users**:
         ■ A **"Create Post"** button, placed at the bottom-right corner of the page (floating

action button or fixed position) which opens the Create Post Modal, without the option for visibility (the posts created in a group will be available for that group only).

- For **admins**:
  - A **"Create Post"** button (same as for normal users).
  - An **"Edit Group"** button, placed near the header section (e.g., top-right corner).
    - Clicking this button opens a **popup modal** to edit the group's **name**, **image**, and **description**.
  - **Remove buttons** next to each member in the expanded members list (as described above).

2. **Behavior**:
   - **Normal User View**:
     - Displays the group's **image**, **title**, **description**, **collapsible members list**, and **posts**.
     - Allows the user to **create posts** in the group.
   - **Admin View**:
     - Displays the same elements as the normal user view.
     - Additional functionality:
       - **Edit Group**: Opens a modal to update the group's **name**, **image**, and **description**.
       - **Remove Members**: Allows the admin to remove members from the group (except themselves).

3. **Edit Group Modal (Admin Only)**:
   - The **Edit Group** modal includes:
     - **Title Field**: Prefilled with the current group title, editable with a 50-character limit.
     - **Description Field**: Prefilled with the current description, editable with a 200-character limit.
     - **Image Upload**: Allows the admin to upload a new image or remove the existing one.
     - **Save Button**: Saves changes and updates the group page in real-time.
     - **Cancel Button**: Closes the modal without saving changes.

4. **Content Visibility Rules**:

- Posts in the Group Page are **always visible only to members of the group**.
- If a user is not a member of the group, they cannot access the Group Page.

Requirement 7: Login/Register Screen

1. **Initial Screen (Email Input)**:
   - The screen starts with a **form** containing:
     - An **email input field** labeled "Email" (placeholder: "Enter your email...").
     - A **Continue button** below the email field.
   - Behavior:
     - When the user clicks **Continue**, the app checks the database to see if the email exists.
2. **If Email Exists (Login Flow)**:
   - The screen updates to display:
     - A **title** labeled "Login".
     - A **password input field** labeled "Password" (placeholder: "Enter your password...").
     - A **Login button** below the password field.
   - Behavior:
     - When the user clicks **Login**:
       - Validate the password.
       - If the password is correct, log the user in and redirect them to the **Home Page**.
       - If the password is incorrect, display an error message (e.g., "Incorrect password").
3. **If Email Does Not Exist (Register Flow)**:
   - The screen updates to display:
     - A **title** labeled "Register".
     - A **profile image upload section**:
       - Displays a **placeholder image** (e.g., a generic user icon).
       - Includes an **"Upload Image"** button that allows users to upload or select an image from their device.
       - Once uploaded, the image is displayed as a thumbnail.
       - Includes a **"Remove Image"** option to clear the uploaded image.
       - The image itself is **optional**; users can proceed without uploading one.

- A **username input field** labeled "Username" (placeholder: "Choose a username...").
      - A **password input field** labeled "Password" (placeholder: "Create a password...").
      - A **confirm password input field** labeled "Confirm Password" (placeholder: "Confirm your password...").
      - A **checkbox** labeled "I accept the terms and conditions" with a link to view the terms and conditions.
      - A **Register button** below the form.
  - Behavior:
    - When the user clicks **Register**:
      - Validate the inputs:
        - Ensure the username is unique and meets requirements (e.g., minimum length > 3, no special characters).
        - Ensure the password and confirm password fields match.
        - Ensure the terms and conditions checkbox is checked.
      - If validation passes:
        - Create a new user account in the database.
        - Log the user in and redirect them to the **Home Page**.
      - If validation fails, display appropriate error messages (e.g., "Passwords do not match").

4. **Error Handling**:
   - Display clear error messages for invalid inputs (e.g., invalid email format, password requirements not met).
   - Ensure the user cannot proceed without valid input.

Requirement 8: User Screen

1. **Access Control**:
   - If the user is **not logged in**, redirect them to the **Login Screen**.
   - If the user is **logged in**, display the **User Screen**.
2. **Page Layout**:
   - The **User Screen** is divided into the following sections:
     - **Header Section**:
       - Displays the **user's profile image** as a large banner at the top.
       - Below the image, displays the **username** in an emphasized format (e.g., large font size, bold).
       - If the user is viewing their own profile, display a **"Log Out" button** near the username.
       - If the user is viewing another user's profile, display a **"Follow" button** (or **"Unfollow"** if already following) near the username.
     - **Tab Navigation**:
       - Below the header, display **four tabs** as buttons:
         - **Posts** (default selected).
         - **Workouts**.
         - **Meals**.
         - **Followers**.
       - The selected tab is **visually highlighted** (e.g., has a slightly different color).
     - **Content Section**:
       - Displays content based on the selected tab:
         - **Posts Tab**:
           - Shows the user's **post history** in a vertical, single-column layout.
           - Each post follows the structure defined in Requirement 2 (title, content, tag, timestamp, reactions, and comments).
         - **Workouts Tab**:
           - Shows the user's **workout history** in a vertical, single-column layout.
           - Each workout entry is displayed **just like a post**, following the same structure

(title, content, tag, timestamp, reactions, and comments).

- **Meals Tab**:
  - Shows the user's **meal history** in a vertical, single-column layout.
  - Each meal entry is displayed **just like a post**, following the same structure (title, content, tag, timestamp, reactions, and comments).
- **Followers Tab**:
  - Shows a list of **followers** in a vertical, single-column layout.
  - Each follower entry includes:
    - The follower's **profile image** (or placeholder).
    - The follower's **username**.
    - A **"Follow" button** (or **"Unfollow"** if the logged-in user is already following them).

3. **Behavior**:
   - **Tab Selection**:
     - Clicking a tab updates the **Content Section** to display the corresponding content (Posts, Workouts, Meals, or Followers).
     - The selected tab is visually highlighted.
   - **Follow/Unfollow Button**:
     - If the user is viewing another user's profile, clicking the **"Follow" button**:
       - Adds the viewed user to the logged-in user's **following list**.
       - Updates the button to display **"Unfollow"**.
     - If the user is viewing another user's profile and already following them, clicking the **"Unfollow" button**:
       - Removes the viewed user from the logged-in user's **following list**.
       - Updates the button to display **"Follow"**.
   - **Log Out Button**:

- If the user is viewing their own profile, clicking the **"Log Out" button**:
  - Logs the user out of the app.
  - Redirects them to the **Home Page**.
4. **Content Visibility Rules**:
   - The **User Screen** is accessible to logged-in users when viewing their own profile or another user's profile.
   - If viewing another user's profile, the **"Log Out" button** is not displayed, and the **"Follow" button** is shown instead.