CS-319

Final Report

Team 06

Group Members

Muhammad Rowaha - 22101023

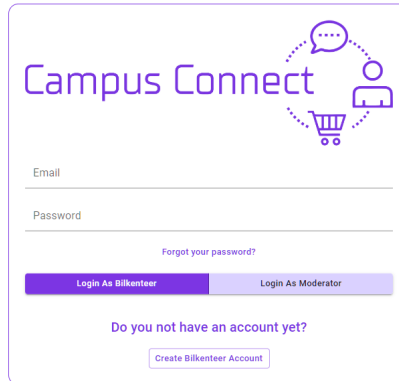**Maher Athar Ilyas - 22001298**

Mehshid Atiq - 22101335

Ghulam Ahmed - 22101001

Ismail Özgenç - 22001648

Date: 17/12/2023

User Manual

Campus Connect

Email

Password

Forgot your password?

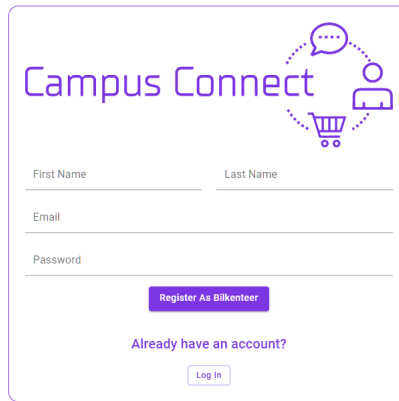| Login As Bilkenteer | Login As Moderator |

Do you not have an account yet?

Create Bilkenteer Account

Login page

1. Accessing the Login Page: Open your web browser and navigate to the Campus Connect login page. The screen should look like the image displayed.
2. Entering Login Credentials:
   a. Email: Click on the "Email" field and enter your campus-associated email address
   b. Password: Click on the "Password" field and enter your password.
3. Password Recovery: If you forget your password, click on the "Forgot your password?" link to reset it. You will be guided through the password recovery process.
4. Logging In:
   a. As a Bilkenter: If you are a student or a staff member, click the "Login As Bilkenter" button after entering your credentials to access your personalized campus dashboard.
   b. As a Moderator: If you have moderator privileges, select "Login As Moderator" to manage the platform or address user queries.
5. Creating an Account: If you do not have an account yet, click on the "Create Bilkenter Account" to register on the platform. You will be redirected to the account creation page, where you can fill in your details to sign up.

Register page

1. Navigating to Registration Page: If you're new to Campus Connect, you'll start here to create your account. You can reach this page by selecting the "Create Bilkenteer Account" or "Create Moderator Account" option from the main page.
2. Filling in Personal Information:
    a. First Name: Click on the "First Name" field and enter your given name.
    b. Last Name: Click on the "Last Name" field and enter your family or surname.
3. Entering Account Details:
    a. Email: Click on the "Email" field and provide a valid email address. This will be used for all communications and login purposes.
    b. Password: Click on the "Password" field and create a secure password.
4. Completing Registration: After filling out all the fields, click the "Register As Bilkenter" button to create the account. Additional steps like OTP email verification may be required to complete the registration process.
5. Returning Users: If you already have an account, click on the "Log In" link at the bottom of the page to return to the login screen.
6. Post-Registration: Once the registration is complete, you will be directed to your new Campus Connect dashboard
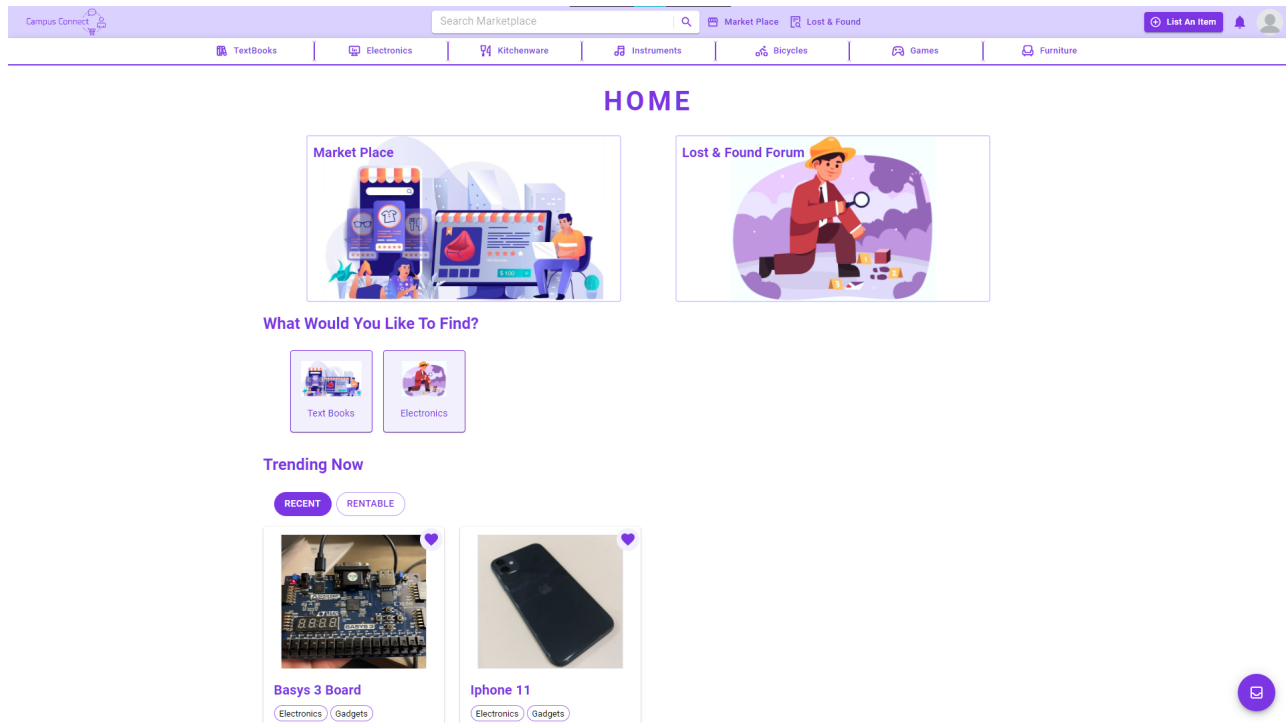
Market Home Dashboard

1. Dashboard Overview:
   a. The dashboard features quick access to different categories such as TextBooks, Electronics, Kitchenware, Instruments, Bicycles, Games, and Furniture.
   b. There are two main interactive sections: the Market Place and the Lost & Found Forum.
2. Navigating the Marketplace:
   a. Use the search bar at the top to find specific items within the marketplace.
   b. Click on the category icons (like TextBooks or Electronics) to explore items listed under each category.
3. Market Place Section: This section offers a visual display of available categories for shopping, such as Text Books and Electronics. Click on these to view items for sale within each category.
4. Lost & Found Forum: The illustrated icon leads to the Lost & Found section, where you can search for items that have been lost or found on campus.
5. Trending Now:
   a. Below the main sections, a "Trending Now" area showcases items recently listed or available for rent.
   b. Items are displayed with a photo, name, and tags. You can click on these items to get more details or to initiate a purchase or rental.
6. Listing an Item: If you wish to sell or rent an item, click on the "List An Item" button at the top right corner of the page to be directed to the item listing form.

7. Interacting with Listings: Items in the "Trending Now" section have interactive elements such as likes (indicated by a heart icon). You can engage with these elements as per your interest.
8. Profile and Settings: Your personal profile and settings can be accessed through the icons located at the top right corner of the page, allowing you to manage your account and listings.
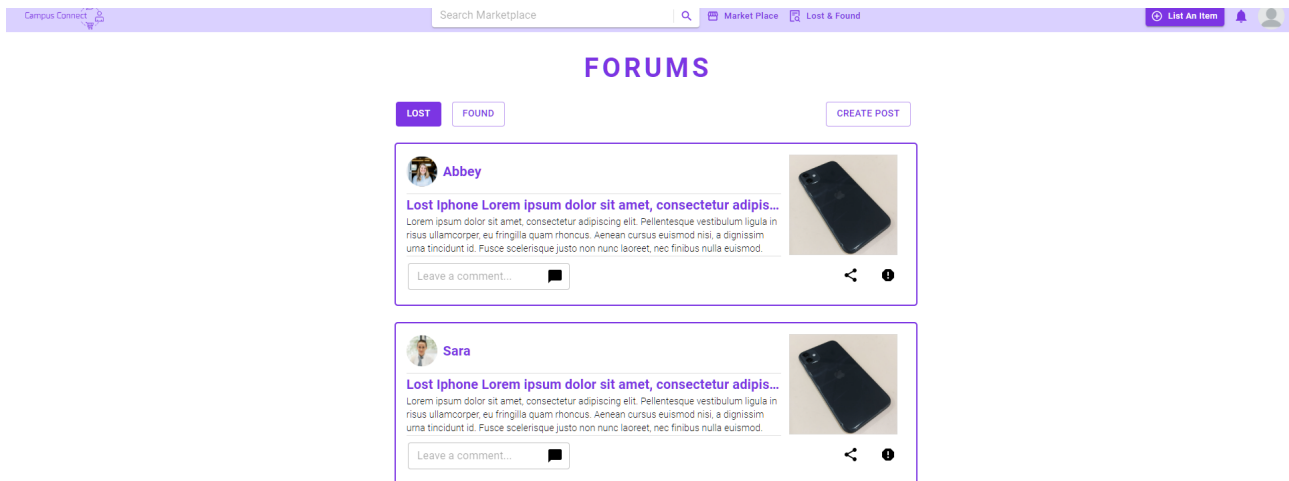

Lost & Found Forum

1. Forum Navigation: At the top of the page, you'll see tabs labeled 'LOST' and 'FOUND.' You can click on these to filter the posts accordingly, whether you've lost an item or found an item.
2. Reading Posts:
   a. The main area of the screen shows individual posts by users, including a title (e.g., "Lost iPhone"), a brief description, and a picture of the lost item, if available.
   b. You can scroll through the posts to see if any of the lost items belong to you or if you have found an item posted.
3. Interacting with Posts: If you want to engage with a post, for example, to provide information about a lost or found item, click on "Leave a comment..." below the respective post.
4. Creating a Post: To create a new post, click the "CREATE POST" button located at the top right of the forum section. This will allow you to create a new thread where you can describe the item lost or found, when and where it happened, and any other relevant details.

5. Searching Within Forums: Use the search bar at the top to quickly find specific items or posts within the forum by entering keywords.
6. Navigation and Profile Access:
   a. Use the top navigation bar to return to the marketplace or other sections of Campus Connect.
   b. Access your user profile and additional settings through the icons in the top right corner.

User Profile
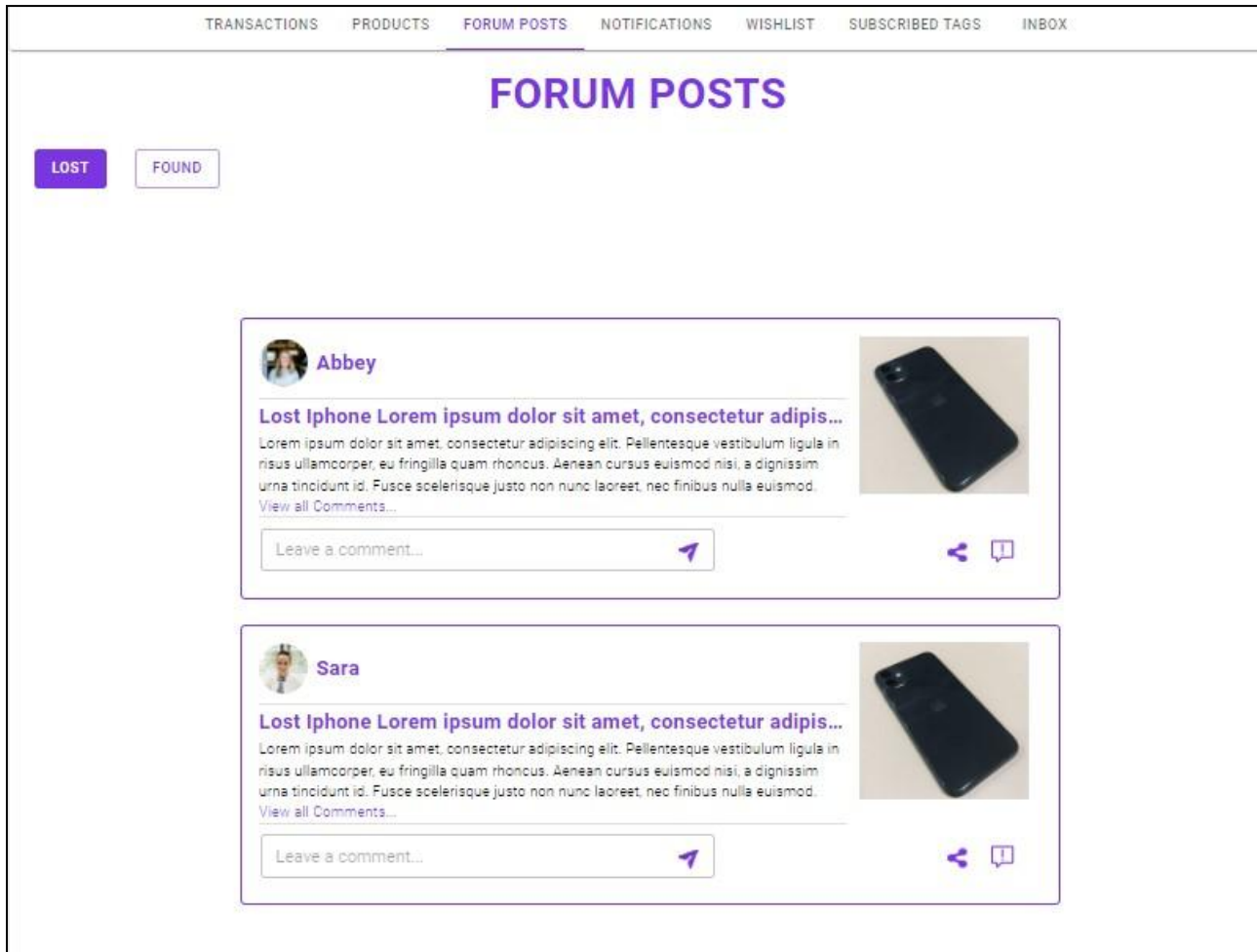
1. Forum Navigation: At the top of the page, you'll see tabs labeled Transaction, PProducts, Forum Posts, Notification, Wishlist, subscribed Tags, and Inbox. These will help the user navigate between data related to his profile.
2. Transactions Tab: This will show the ongoing and completed transactions of the current user in different tabs.
3. Products Tab: this will show the lists of products sold and rented by the user in different tabs.

4. Forum Posts Tab: this will show the list of forum posts made by the user in lost and found forums separately.
5. Notifications: This will show the notifications received by the user.
6. Wishlist: This will show all the market products that have been marked as favorites by the user.
7. Subscribed Tags: This shows a list of all the tags for market products that the user is subscribed to. He will receive notifications for these tags via his preferred notification setting, i.e., via email or in-app.
8. Inbox: This will take the user to his inbox to chat with any app user.

Admin - Manage Moderators

1. Accessing Admin Panel: Admins will log in with admin credentials from the main login page of Campus Connect.
2. Viewing Moderator List: The table displays a list of moderators' email addresses, first and last names, and account status (active or suspended).
3. Managing Moderator Status: Next to each moderator's status is a "SUSPEND ACCOUNT" button. Click this button if you need to deactivate a moderator's account temporarily. This might be necessary if the account is compromised or if the moderator is not complying with the platform's policies.
4. Adding a New Moderator: To add a new moderator, click the "+" icon at the bottom right corner of the table.
5. Viewing Credentials: The "View Credentials" button at the top right corner of the screen may provide access to further details about the moderators, such as their roles, permissions, and activity logs.

6. Navigation: Use the main navigation bar at the top of the screen to switch between different administrative tasks such as managing users, content, or viewing reports.
7. Conducting Actions: Make sure to conduct any actions like suspending an account with consideration and, if needed, in accordance with the platform's rules and regulations.

Admin - Register Moderator

1. Filling in the Registration Form:
   a. First Name: Click on the "First Name" field and enter the new moderator's first name.
   b. Last Name: Click on the "Last Name" field and enter the new moderator's last name.
   c. Email: Click on the "Email" field and enter the new moderator's email address. This should be an email that the moderator will use for administrative communications.
   d. Password: Click on the "Password" field and create a password for the new moderator. Follow any platform guidelines for password strength.
2. Completing the Registration:
   a. Once all the fields are filled in, click the "REGISTER MODERATOR" button to create the new moderator account. The system will send a confirmation email to the new moderator to verify their email address.

Admin - Suspend/Unsuspend Moderator

Registration OTP

1. Receiving the OTP: After signing up or performing an action that requires verification, you should receive an email like the one shown, which includes an OTP.
2. Using the OTP:
    a. Open the email and locate the OTP provided in the body of the message. In this case, the OTP is displayed in a blue box.
    b. Copy the OTP

      c. Return to the Campus Connect web application where you initiated the sign-up or verification process.

      d. Paste or type the OTP into the designated field to verify your account or complete your login process.

3. OTP Validity:

      a. Note that the OTP is typically valid for a short period, as stated in the email. In this case, it is valid for 5 minutes. You must request a new one if you do not use it within this time frame.

4. Requesting a New OTP:

      a. If the OTP expires, return to the Campus Connect platform and trigger the process to send a new OTP.

Build Instructions

Backend

Prerequisites:

1.1 Java SDK 17:

- Ensure that you have Java SDK version 17 installed on your machine. You can download it from the official Oracle or OpenJDK [website](#).

1.2 Docker:

- Install Docker on your machine. You can download Docker from the official [website](#).

1.3 PostgreSQL:

- Install PostgreSQL on your machine. You can download it from the official PostgreSQL [website](#). During installation, you can choose to create a new database or use the default one named 'Postgres.'

1.4 IntelliJ IDEA (Recommended IDE):

- Use IntelliJ IDEA as your integrated development environment (IDE). You can download it from the official JetBrains [website](#).

1.5 Node.js v16.17:

- Install Node.js version 16.17 on your machine. You can download it from the official Node.js [website](#).

Follow these detailed steps to set up and run the project successfully:

1. Database Configuration:

Navigate to the `ui/resources` directory and open the `application-local.properties` file. Update the database details to match your local setup.

```
# ui/resources/application.properties

# Database Configuration
spring.datasource.url=jdbc:mysql://localhost:3306/your_database
spring.datasource.username=your_username
spring.datasource.password=your_password
```

Replace your username and your password with the credentials you set during PostgreSQL Database installation. You could use the default password if you didn't set a specific password during installation.

3. Update Local S3 Details

Navigate to the `ui/resources` directory and open the `application-local.properties` file. Update the database details to match your local setup.

```
# ui/resources/application.properties

# MinIO Configuration
minio.endpoint=http://localhost:{minio_port}
minio.port={minio_port}
minio.access-key={minio_accesskey or username}
minio.secret-key={minio_secretkey or password}
```

NOTE: Provided configuration files contain default credentials.

Then navigate to `./docker-compose.yml` and update the following properties

```
services:
  minio:
    image: minio/minio:latest
    container_name: minio
    environment:
      MINIO_ROOT_USER: "{minio_accesskey or username}"
      MINIO_ROOT_PASSWORD: "{minio_secretkey or password}"
    volumes:
```

```
      - {minio_storage_dir}:/data
    ports:
      - {minio_port}:9000
      - {minio_console_port}:9001
    command: server /data --console-address ":9001"
```

NOTE: Your variables in both the docker-compose and application-local properties must be similar.

NOTE: To confirm that MinIO Object Store is working properly, you can visit `localhost:{minio_console_port}` on your browser

NOTE: Set the path to `{minio_storage_dir}` and ensure that that folder is empty and exists. An example can be `./s3` within the project root directory and adding `./s3` to `.gitignore`

4. Running Docker Container

To initialize the defined services, use the following command:

```
docker-compose up
```

NOTE: This command orchestrates the deployment of the multi-container application as specified in the docker-compose.yml file. It is a crucial step for launching and testing the interconnected services of the application.

5. Maven Install

Use the Maven plugin on the right side of IntelliJ or open a terminal and navigate to the project root directory.

Before running Maven commands, ensure the mvn executable is in your system's PATH. If you encounter an "mvn not recognized" error, follow these [steps](#) to add the Maven bin directory to your PATH

Run the following Maven command to clean the project:
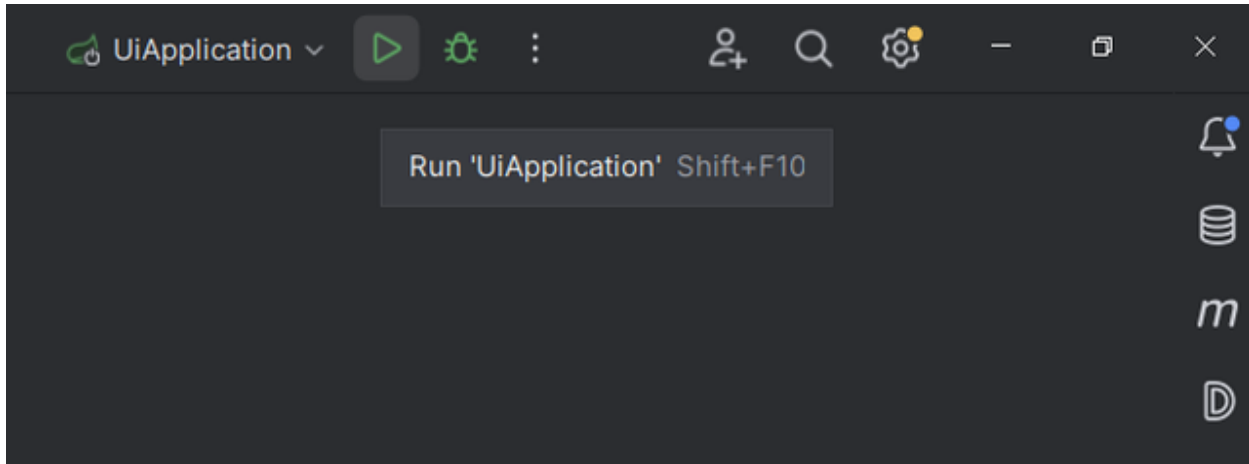
```
mvn clean
```

Then run the following Maven command to install the modules:

```
mvn install
```

NOTE: When running the application from an integrated development environment (IDE), these commands are typically executed automatically for you.

6. Run UiApplication in the UI Module

Navigate to the `ui` module and click Run next to the Current Module option on the toolbar.

Frontend

The monorepo contains frontend and admin-frontend packages.

Packages

- root_dir : ./packages
- admin-frontend
- frontend

Environment

You need to set up the environment before running the frontends

1. Create a `.env` file in the root turborepo workspace
2. Add `NEXT_PUBLIC_API_URL` and set its value to the backend URL. If no changes were made to the Spring MVC backend, just set its value to `http://localhost:8080`
3. Add `NEXT_PUBLIC_ADMIN_APIKEY` and set its value to the `admin.apikey` property found in `application.properties` of the Spring MVC backend

Usage

1. suggested node version 16.17.0
2. run `npm install`
3. To run both admin and app, run `npm run dev`
4. To run admin only, run `npm run dev:admin`
5. To run app only, run `npm run dev:app`

Work Allocation

- Muhammad Rowaha - 22101023
  - Reports
    - Participated in all reports
  - Backend
    - Setup backend
    - Auth implementation
    - OTP implementation
    - Image upload implementation
  - Frontend
    - Setup frontend
    - Admin implementation
- Maher Athar Ilyas - 22001298
  - Reports
    - Participated in all reports
  - Backend
    - Search, sorting, and filtering implementation
    - Email service implementation
    - Message implementation
    - Notification implementation
  - Frontend
    - Inbox implementation
- Mehshid Atiq - 22101335
  - Reports
    - Participated in all reports
  - Frontend
    - Profile settings implementation
    - Marketplace implementation
    - Lost & Found forum implementation
- Ghulam Ahmed - 22101001
  - Reports
    - Participated in all reports
  - Backend

- ■ Tags implementation
- ■ Reports implementation
  - ○ Frontend
    - ■ Turborepo Monorepo setup
    - ■ Moderator User Interface
- Ismail Özgenç - 22001648
  - ○ Reports
    - ■ Participated in all reports
  - ○ Backend
    - ■ Product Implementation