CS 391 Homework #1

High-Level Project Description

Spark Bytes is a platform for Boston University students and faculty members to post events that provide foods or snacks. The aim is to reduce food waste resulting from over-purchasing for events and at the same time, help students access free food.

1. Sign Up with BU Portal (SSO)

User Story:

As a student or faculty member, I can sign up through the BU portal, so that I can securely access Spark Bytes without creating a separate account.

Acceptance Criteria:

- Given I am on the Spark Bytes login page,
- When I click "Sign up with BU Portal,"
- Then I should be redirected to the official BU login page.
- When I enter my valid BU credentials,
- Then I should be authenticated and redirected back to Spark Bytes with my profile created automatically.
- When I enter invalid credentials,
- Then I should see an error message from the BU login system and not be logged in or signed up.
- When I sign up successfully,
- Then my Spark Bytes account should automatically use my BU name and email.

2. Role-Based Permissions (Faculty vs. Students)

User Story:

As a BU community member, I want permissions based on my role (faculty/staff vs. student), so that faculty/staff can post events, while students can both post and reserve food.

Acceptance Criteria:

- Given I log in through the BU portal,
- When my BU role is identified as faculty/staff,
- Then I should only see the option to "Post Event" but not to "Reserve."
- When my BU role is identified as a student,
- Then I should see both options: "Post Event" and "Reserve."

3. Log In

User Story:

As a registered user, I can log into my account, so that I can post and browse events.

Acceptance Criteria:

- Given I am on the login page,

- When I enter my registered BU email and correct password,
- Then I should be logged in and taken to my dashboard/homepage.
- When I enter an incorrect password,
- Then I should see an error message.

4. Post a Food Event

User Story:

As an event organizer, I can post an event with leftover food, so that students know when and where free food is available.

Acceptance Criteria:
- Given I am logged in,
- When I click "Create Event,"
- Then I should be prompted to enter details (event name, type of food available, number of servings/food items available, location, time, contact info).
- When I leave required fields blank,
- Then I should be prompted to fill them in.
- When I submit the form,
- Then the event should be published and visible on the event feed.

5. Browse Events

User Story:

As a student, I can browse a feed of food events, so that I can quickly find available free food on campus.

Acceptance Criteria:
- Given I am logged in,
- When I go to the homepage,
- Then I should see a list of currently available events.
- When I click on an event,
- Then I should see full event details (time, location, food type, organizer info).
- When there are no active events,
- Then I should see a message saying "No food events available right now."

6. Search and Filter/Sort Events

User Story:

As a student, I can search and filter food events, so that I can find ones that match my preferences.

Acceptance Criteria:
- Given I am on the event feed,
- When I use the search bar,
- Then I should see results matching my keywords (e.g., "pizza," "snacks," "desserts").
- When I use filters (time, location, type of food),

- Then only matching events should appear.
- When no results match my search/filter,
- Then I should see a "No matching events found" message.
- When I use sorting (e.g., soonest first, farthest/closest, most recent),
- Then events should reorder accordingly.

7. Get Event Notifications

User Story:

As a student, I can receive notifications when new food events are posted, so that I don't miss opportunities for free food.

Acceptance Criteria:

- Given I am logged in,
- When a new event is posted,
- Then I should receive a push notification or email (depending on my preferences).
- When I click the notification,
- Then I should be taken to the event details page.
- When I disable notifications in my profile settings,
- Then I should not receive any alerts.

8. Reserve Food from an Event

User Story:

As a student, I can reserve food from an event, so that I know food will be available for me and the event doesn't get overcrowded.

Acceptance Criteria:

- Given I am logged in as a student,
- When I click "Reserve" on an event,
- Then one portion of food should be assigned to me.
- When all food portions have been reserved,
- Then the event should show "No more reservations available" and the Reserve button should be disabled.
- When I successfully reserve,
- Then the event should appear in my "Reserved Events" list.

9. Unclaim / Opt-Out of an Event

User Story:

As a student, I can unclaim or opt out of an event I previously claimed, so that the food can be made available to others if I can't attend.

Acceptance Criteria:

- Given I have previously claimed a spot for an event,
- When I go to my "Claimed Events" list,
- Then I should see an option to "Unclaim" or "Opt Out."

- When I click "Unclaim,"
- Then my claim should be removed, and the event's available food count should update.
- When I unclaim,
- Then I should receive a confirmation message like "You've opted out. This event is no longer in your claimed list."

*Some user stories and acceptance criteria were developed with the assistance of AI (ChatGPT by OpenAI).