Project Plan

1. Requirements:
    a. Goals:
        i. Spark! Bytes will enable Boston University constituents to access extra leftover food from university events. This will work to minimize food waste and provide students with access to free snacks.
    b. Details:
        i. Key stakeholders involved:
            1. Boston University Students
            2. Boston University faculty members
            3. Event organizers at Boston University
            4. App developers: team 6 at Boston University
            5. Boston University administration
        ii. Features:
            1. Users can post events and edit event details; they are the organizer for that event
                a. Organizers can add pictures and post the amount of food available for their events
                b. List the types of food available and add tags for “vegan” and other dietary information.
                c. Set a window of when people can pick up leftovers (typically starts towards the end of an event), and can extend the timer if food is still good and available
            2. When the set time window for an posting begins, sends notifications to nearby users via either email or SMS (also respecting dietary restrictions), and the event page is made available
            3. Before an event’s set time window begins, it is only visible to its organizer
            4. Event page has a live countdown, catering options, dietary info, live counter of food volume remaining, and live counter of respondents to the notification
            5. Food “volume” monitoring system
                a. Organizers can post the amount of food at an event, in units of (average # of ppl that can be fed). This can be updated later, but will be automatically updated by users scanning a QR code before taking food.

b. Organizers will have a list of preset food and dietary info markers available for them to select from to make event creation faster.
c. There will be an indicator if food counter is not live (in cas the organizer opts to not monitor food supply)
d. Users can “accept” a notification by clicking a link, which will indicate they are on their way.
e. Once at the event, they can be scanned in by the organizers with a QR code, which will decrease the remaining food count so others don’t try to come with no food remaining. It will also decrement the number of respondents counter

6. Users will be able to configure their dietary restrictions/preferences and location preferences so as to only receive notifications relevant to them, and to avoid any harmful effects potentially caused by allergies or other restrictions.
7. Once a user is logged in, they will be able to choose to stay logged in on that device. Doing so will keep them logged in for 120 days.

iii. Risks & Mitigations:

1. Fake event postings
   a. Mitigation: all event postings will be linked to the organizer’s bu.edu email, so there will be consequences
2. Too many people showing up to pick up
   a. Mitigation: organizers will be able to update the amount of food available in real-time by scanning people in with a QR code

2. Resources:

a. Roles:

Name	Roles
Arooj Kamran	Developer; Designer
Bowen Li	Developer; Devil’s Advocate
Ethan Rousseau	Developer; Full-stack Developer
Jude Lopez	Developer; Editor/Tester
Olesya Kukhareva	Developer; Meeting Coordinator

3. Tasks:

a. High-level project plan details

Phase	Deliverables	Tasks	Sprints	Resources
Planning	- Requirements & Scope Document - Work Breakdown Structure	- define general operation and features of web app	1	Entire team
Design	- System Design Document - User Interface Prototypes	- conceptualize user interface design - define modules by functionality	2-3	Developers, Designers
Development	- code modules - test of each model	- write module code - conduct intra module tests - integrate modules with each other	3-7	Developers, Designers, Testers
Testing	- test cases - test reports and output - fixed testing problems	- create system test cases - run tests on integrated web app - identify errors and fix	5-8	Testers, Developers
Deployment	- Completed web application - Documentation - Presentation	- ensure functionalities are linked to requirements - include all information on presentation	7-8	Entire team

b. Tasks assigned to Backlog

ID	Task	Description	Sprint(s)	Status
1	Project Plan	- Complete project plan document	1-2	Completed
2	System Design	- Create a draft of how the whole system would look (frontend, backend, DB, deployment, etc.)	2	Completed
3	Set Up Database	- Set up a database to store data on users and events	2-3	Not Started
4	Create User Registration Form	- Create form for new users to sign up - Only @bu.edu emails allowed - Set up dietary restrictions/preferences - Add locations they want notifications for	3	Not Started

5	Create Login Page	- Landing page for users to login if they already have an account	3	Not Started
6	Create User Info Page	- Page where users can view and edit their own info (including dietary info, phone #, email addresses to notify)	3-4	Not Started
7	Implement Event Creation	- Create form where a user can create an event posting and specify all info listed in requirements section - Allow taking photos	4	Not Started
8	Create Event Page	- Create page summarizing event info - Countdown until it starts - Before it starts, only creator is allowed to view - Creator can edit details any time	4	Not Started
9	Event Page Interactivity	- After event starts, countdown until it ends - Option for creator to extend timer after it starts (or edit other event details) - After it starts, displays food options, availability for each option, pictures if creator added them, and live counter for how many other users responded to the event notification - QR Code to decrement food availability counter and attendee counter	5-6	Not Started
10	Implement Notifications	- When an event's start time is reached, notifies appropriate users (based on their email/sms preferences, dietary info, and location preferences)	5-6	Not Started
11	Implement User Dashboard	- Create dashboard where users can see list of currently available events	7	Not Started
12	Create Event Organizer Dashboard	- Create dashboard where users can see list of events they created	7	Not Started
13	Integration Testing	- Test whole system's functionality - Try edge cases	5-7	Not Started
14	Deployment	- Deploy the site	6-7	Not Started
15	Documentation	- Add sufficient comments - Complete README	3-7	Not Started
16	Presentation	- Complete Final Presentation	8	Not Started

4. Schedule:

a. Sprint plan:

i. Sprint goals and course project deliverables:

Week	Date	Day	Sprint End	Goals (in terms of task IDs)
6	8-Oct-24	Tues.	N/A	N/A
7	15-Oct-24	Tues.	1	Complete a draft of 1.
8	22-Oct-24	Tues.	2	Finalize 1; Complete a draft of 2; Begin 3 and 15
9	29-Oct-24	Tues.	3	Complete 3, 4, and 5; Begin 6
10	5-Nov-24	Tues.	4	Complete 6, 7, and 8
11	12-Nov-24	Tues.	5	Begin 9 and 10; Begin 13
12	19-Nov-24	Tues.	6	Complete 9 and 10; Begin 14
13	19-Nov-24	Tues.	7	Complete 11, 12, 13, 14, and 15
14	5-Dec-24	Th.	8	Complete 16

5. Communication Plan:

a. Stand-ups: We will hold weekly 10-minute virtual standup meetings to sync up via Discord (meeting platform).

b. Sprint planning & feedback: In addition to standups, at the end of each sprint, the team will hold another meeting (30 mins - 1 hr) to retrospect on the project progress so far and to plan for the next sprint. These can be either virtual or in-person depending on the needs of the team at the time.