

Project Plan - Team 5

Spark!Bytes

1. Requirements:

- **Overview:**
 - **Project Name:** Spark Bytes
 - **Due Date:** December 10th
 - **Authors:** Abdudllah Alajmi, Cristobal Newman, Panos Koutsoukos, Sachin Thapa, Wes Jorgensen
 - **Purpose:** Create a digital platform for Boston University students and faculty to promote events with food in order to reduce food waste, assist students in accessing free food, and also promote community engagement among students and faculty.
 - **Stakeholder**
 - BU Student Body and Faculty
- **Scope of Work:**
 - **Problem/Opportunity:**
 - **Problem:** Overestimation of required food at campus events leads to excess food waste. Students and faculty are not informed properly when there is available food. There are events around campus that offer food and due to a surplus, the food is wasted. There is no centralized platform to inform and distribute available food. There are students that are sick of dining hall food and aren't in a hurry to splash a quick twenty bucks on a meal
 - **Opportunity:** This platform will help resolve food waste and provide its users access to available food.
 - **Use Cases:**
 - As a student (or primary user in general), I want to be informed on time about excess food availability around campus so that I can have the opportunity and access to free food.
 - As an event organizer, I want to inform people about excess food from my events so that students and faculty can come to pick it up and reduce food waste.
 - As BU Faculty, I don't want to throw away heaps of food cleaning up after events.
- **Functional Requirements:**
 - **Key Features:**

1. User Management

- **Registration & Authentication:**
 - Users register using their university email and verify it via bu email only (they can't be anonymous profiles to add credibility)
- **Profiles:**
 - Users can manage their profiles, including personal information and dietary restrictions.
 - Option to upload a profile picture.
 - Access to a history log of past event attendance and reviews.

2. Event Management

- **Event Posting:**
 - Event planners can post events with details like title, description, location, date, time, food types, and photos.
 - Dietary categorization options for food (e.g., Vegetarian, Vegan, Halal).
 - Reservation feature.
- **Event Editing & Deletion:**
 - Event creators can edit or delete their events.
 - Viewership statistics are available for events.
- **Reporting:**
 - Users can report misleading or fake events.
 - Automatically remove events with a significant number of reports.

3. Browsing and Interaction Features

- **Search & Filters:**
 - Users can search for events by name, food type, location, and time.
 - Filters available for food category, location, and event details.
- **Notifications:**
 - Users can opt-in for notifications about new events. (Based off of food preference)
- **Following & Updates:**
 - Updates on the availability of food can be made by users at the event location.
- **Commenting & Reviews:**
 - Comment section for discussions and reviews of events
 - Rating system to provide feedback on events (upvote/downvote)

4. Administrative Controls

- **Admin Features:**
 - Administrators can manage user accounts, events, and comments.
 - Ability to delete or modify events and content.

- Access to analytics for user engagement and event data.
- **Support:**
 - Users can submit complaint tickets for technical issues or suggestions

5. Security & Privacy

- **Security & Privacy:**
 - User data is encrypted.
 - Compliance with university terms and conditions.

6. User Interface

- **Web & Mobile Interface:**
 - Responsive design adaptable to multiple screen sizes
 - Intuitive, easy to navigate, and user friendly interface,
- **Mapping & Navigation:**
 - Integrated map showing event locations relative to users.
 - Google Maps API integration for location and navigation.
 - Filters on the map to locate events by preferences.

7. Backend & Technical Specifications

- **Database & Storage:**
 - Use relational databases for storing user and event data.
- **Email Services:**
 - Integration with Email APIs for registration and verification.
- **Map Services:**
 - Google Maps API for location data and directions.

2. Resources:

Role/resource assignment:

Name	Roles
Abdullah Alajmi	Product Manager Developer - Code Module A,B,D
Cristobal Newman	Developer and Designer - Code Module A,C,D
Panos Koutsoukos	Developer and Designer - Code Module A,C Testing
Sachin Thapa	Developer and Designer -Code Module B,C Testing
Wes Jorgensen	Developer and Designer -Code Module B,D Testing

3. Tasks: High Level Project Plan Details

Phase	Deliverables	Tasks	Timeline	Resources
Planning	<ul style="list-style-type: none">• Requirements & Project Plan• Work Breakdown (Sprints)	<ul style="list-style-type: none">• Define project goals, requirements and stakeholders <p>Set up repo and comms</p>	<i>Sprint 1</i>	Team
Design	<ul style="list-style-type: none">• System Design Document• User Interface Prototypes	<ul style="list-style-type: none">• Conduct requirements gathering• Create design specifications• Develop prototypes	<i>Sprint 2</i>	Developers, Designers
Development	<ul style="list-style-type: none">• Code Modules• Unit Tests of Each Module	<ul style="list-style-type: none">• Write code• Conduct unit testing• Integrate modules	Sprint 3-6	<i>Developers</i>
Testing	<ul style="list-style-type: none">• Test Cases• Test Reports• Fixed Testing Problems	<ul style="list-style-type: none">• Develop test cases• Execute testing• Analyze results and remediate problems	Sprint 7	<i>Developers</i>
Deployment	<ul style="list-style-type: none">• Completed Web Application• Deployment Plan,• User Manual, System Design, other Documentation	<ul style="list-style-type: none">• Prepare deployment environment• Deploy software• Create documentation	<i>Sprint 8</i>	Team

Tasks Assigned to Backlog

ID	Task	Description	Sprint	Status	Assigned Member
1	Gather Requirements	Define project requirements, identify user personas, and finalize key features.	1	Completed	All Members
2	Design Wireframes and Architecture	Create wireframes, UI mockups, and design system architecture (database schema, API)	2	In Progress	All members
3	Create User Registration & Profile Management	Implement user registration and profile management (personal details, dietary restrictions).	3	Not Started	Abdullah, Panos Koutsoukos
4	Implement Event Management	Develop event posting, editing, deletion, dietary categorization, and reservation features.	4	Not Started	Sachin Thapa, Wes Jorgensen
5	Implement Search, Notifications & Reviews	Implement search, filters, notifications, and event review/commenting system.	5	Not Started	Cristobal Newman, Panos Koutsoukos, Sachin Thapa
6	Admin Controls & Analytics	Set up admin controls, user and event management, analytics dashboard, and ensure data compliance.	6	Not Started	Wes Jorgensen, Cristobal Newman

7	Testing and Optimization	Conduct unit, integration, and usability testing; optimize database queries and performance.	7	Not Started	Panos Koutsoukos, Sachin Thapa, Cristobal Newman
8	Documentation and Final Presentation	Finalize project documentation, UI/UX walkthroughs, and prepare the final presentation for stakeholders.	8	Not Started	All Members

4. Schedule:

Project Sprints

- Requirements Gathering** (Week 1)
 - Define functional and non-functional requirements. - All members
 - Identify user personas (students, faculty, event organizers). - All members
 - Finalize key features and scope. -All members
 - Set up initial project repository and communication channels. -All members
- Design and Architecture** (Week 2)
 - Create wireframes and UI mockups for the platform. - All members
 - Design the system architecture, including the database schema, API structure, and integrations (e.g., Google Maps API). -All members
 - Plan user flows and interaction designs. -All members
- User Management Module (A)** (Week 3)
 - Implement user registration and authentication (using BU email). -Abdullah
 - Develop profile management features (edit personal details, dietary restrictions). -Cristobal Newman
 - Password recovery and two-factor authentication setup. -Panos Koutsoukos
- Event Management Module (B)** (Week 4)
 - Develop event posting, editing, and deletion features. - Sachin Thapa
 - Include dietary categorization for food types and reservation systems. - Wes Jorgensen
 - Implement viewership statistics and reporting system. - Abdullah
- Search and Interaction Features (C)** (Week 5)
 - Implement search and filters (by name, food type, location, time). - Cristobal Newman
 - Set up notifications and user preferences. -Panos Koutsoukos

- Add commenting, reviews, and rating system for events. -Sachin Thapa
- 6. **Admin Controls and Security (D)** (Week 6)
 - Implement admin features (manage users, events, reports). - Wes J
 - Set up analytics dashboard for user engagement and event data. - Abdullah
 - Ensure compliance with university privacy policies and add encryption for sensitive data. - Cristobal Newman
- 7. **Testing** (Week 7)
 - Conduct unit and integration testing for all modules. -Panos Koutsoukos
 - Perform security testing (penetration tests for authentication, etc.). - Sachin
 - Run user acceptance tests (UAT) with potential users (students & faculty). -Wes
- 8. **Documentation and Final Presentation** (Week 8)
 - Prepare project documentation (API, user manual, technical specs). -All members
 - Finalize UI/UX walkthroughs and presentation for stakeholders. -All members
 - Ensure all code is well-commented and the repository is organized for handover. -All members

5. Communications Plan:

- Here's your team meeting schedule in a table format:

Meeting Schedule	Purpose	Time	Location
Daily	Check-in	N/A	WhatsApp (Group: Spark!Bytes Team 5)
Monday	Virtual Standup	11:00 AM	Google Meets (Link on WhatsApp)
Wednesday	Virtual Standup	11:00 AM	Google Meets (Link on WhatsApp)
Friday	In-person Team Meeting	9:05 AM	CDS 701