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Spark!Bytes Project Plan

1. Requirements

Goals:
Spark!Bytes will enable Boston University constituents to access extra food from university events.

Software Development Requirements Outline

1. Project Overview

- **Project Name:** Spark Bytes
- **Date: 10/17/2024**
- **Author: Martin So, Aiden Wong, Prashant Gangesar, Pranit Duddupudi**
- **Purpose:** The main purpose and goal of this software is to create a platform that allows for the Boston University community share events that specifically involve giving out food and snacks
- **Stakeholders:** Boston University students, Boston University event organizers, sustainability and waste management teams

2. Scope of Work

- **Problem/Opportunity:** There are a few main goals with this platform, first of all it benefits the students that are using the platform as it allows for them to browse events that are happening around campus easily, giving them easier access to free food and providing more opportunities to attend events and get immersed with the Boston University culture. This also benefits the student and faculty organizers for these events as it allows for them to gauge potential interest in the event which helps them make moe informed choices when purchasing snacks or food for the event so that they don't end up over purchasing and reduce food waste. It also allows for organizers to be able to advertise their events and hopefully get the desired level of engagement.
- **Use Cases:** As a user, I would want to be able to find events that offer food or snacks so I am able to stay informed and go check if I can.

As an event organizer, I want to be able to gauge interest for the events, so I can plan accordingly and not over purchase.

3. Functional Requirements

- **Key Features:** List core features of the software (e.g., user registration, dashboard).

1. User registration function so organizers are able to collect engagement data and users are able to get a more personalized experience.

- The user must register as either a student or faculty member at Boston University.
- Student: Students must login using their Boston University email and password. The login system will be the same as the one used to access their MyBU Student Portal.
- Faculty members: Faculty members must login using their Boston University email and password. The login system will be the same as the one used to access their BU Faculty Portal.
- There will be a “Forgot Password” button which redirects all users to the official BU “Reset My Password” page that is available to all Faculty/Staff/Student/Affiliates, upon being clicked.

2. Event RSVP function that users can click on for events they are interested in so that organizers can get an estimate of people showing up

3. “Attending events” function for the user so they can find all the events they have signed up for all stored in one area

4. Calendar implementation function for the user so when they accept an event they will be attending it can be marked on their calendar as an event on their schedule

5. A filter function for the user so they can search for events that fit their specifications more easily, some filter functions can be by date of the event or by food being provided

6. A event posting function for the event organizers to post upcoming events that offer food or snacks

7. A dashboard function for the event organizers that allows for them to view the data from users regarding their event like people attending

8. Check in system for the users to click in when they actually show up so the event organizers can have more information for the future

4. Non-Functional Requirements

- **Usability:** Simple expectations for the user interface and experience.

  1. Easy to use, the user should be able to know how to use the platform without needing a tutorial

  2. The platform should be accessible to people with disabilities

- **Performance:** Basic performance expectations (e.g., availability, response times).

  1. The platform should provide real time updates for events

  2. The platform should be able to support a lot of users at the same time

  3. Overall response time for everything in the platform should be pretty quick

- **Security:** High-level security needs (e.g., authentication, data protection).

  1. The platform should have some sort of authentication to only allow BU students and staff or event faculty to be able access the platform

     - BU Email/Password

  2. All personal data regarding everyone using the platform on the user side and the event planner side should be encrypted

5. Technical Requirements

- **Platform(s):**

  1. Modern Web browsers on both mobile and computers

- **Integrations:** Mention any key integrations or APIs.

  1. When creating accounts it should connect to the BU login

  2. Calendar systems like google calendar so events that are confirmed can seamlessly integrate themselves into each user's calendar to provide updates and reminders

  3. SMS integration as another way event notifications can be sent

6. Constraints and Assumptions

- **Constraints:** Briefly list any known constraints (e.g., budget, tools).

  1. Budget would be a problem because depending on how much budget the project has it may affect development time, how much load the platform can take and maintenance

2. If this is a project ran just by students it might face limitations as the team will be lacking in experience

- **Assumptions:** Any assumptions, such as user behavior or technology availability.

1. This is under the assumption that every student has access to either a smartphone or laptop

2. This is under the assumption that the school would provide some sort of support when it comes to providing resources so that the platform can run smoothly

3. This is under the assumption that event organizers that provide food or snacks will be using this platform to advertise their events and gauge attendance to plan accordingly

7. Risks

- **Risks:** Identify one or two major risks and mitigation strategies.

1. One of the major risks is that there won't be enough user engagement, as if there aren't users to sign up and show interest for events, the event organizers would not be able to collect enough data to be able to gauge interest and won't be able to plan food and snacks accordingly, leading to potential over spending and food waste. A mitigation strategy for this could be for the platform to have a marketing team to advertise the platform and provide potential benefits like a point system to using the platform to get more users to be aware and actively use it.

2. Another major risk could be that there could be too much user engagement, leading to so many sign ups for events that the event organizers may not be able to handle the amount of people attending, a mitigation strategy could be for the platform to limit the amount of people that can sign up for each event so when it caps it will no longer take any more attendees.

2. Resources

Role/resource assignment:

Name	Roles
Prashant Gangesar	Designer: home page, footer, Developer: assisting frontend and backend
Martin So	Designer: about page, header, Developer: frontend, about page, home page
Pranit Duddupudi	Developer: backend, database, backend connection, linking

Aiden Wong	Designer, Developer: backend assistance, backend connection, and phone number storage

3. Tasks

Phase	Deliverables	Tasks	Timeline	Resources
Planning	• Requirements & Scope Document • Work Breakdown Structure (WBS)	• Define project goals, requirements and stakeholders • Create WBS	Sprint 1	Team
Design	• System Design Document • User Interface Prototypes on Figma	• Conduct requirements gathering • Create design specifications document • Develop prototypes on Figma	Sprint 2	Team - design specification doc Front end Designers - figma prototype
Development	• Code Modules • Unit Tests of Each Module	• Write code • Conduct unit testing • Integrate modules	Sprint 3-6	Developers and Designers will develop implementation
Testing	• Test Cases • Test Reports • Fixed Testing Problems	• Develop test cases • Execute testing • Analyze results and remediate problems	Sprint 5-6	Team
Deployment	• Completed Web Application • Deployment Plan, • User Manual, System Design, and Other Documentation	• Prepare deployment environment • Deploy software • Create documentation	Sprint 8	Team

Tasks assigned to backlog

ID	Task	Description	Sprint	Status
1	User Registration	Collect user engagement, allow event organizers to post	3	Not started
2	Events section	List of events that user can see	3	Not started

3	Attending events page	List of events that user is attending	3	Not started
4	Calendar Link	Link that user can click on and add event	4	Not started
5	Filter Function	Food, events, date, etc	4	Not started
6	Event Posting Function	Allows BU faculty to create events	4	Not started
7	Dashboard	Gives info to event organizers about attendance, food preferences, RSVPs etc	5	Not started
8	Check-in Function	Allows users to check in to events when they arrive at the event.	5	Not Started

4. Schedule

Sprint Plan

Every week will have a different priority. Overall, we want to cover what we did well that week and what we did poorly. We want to improve our productivity and make sure we are on task.

Sprint Goals

- Discuss roles for project
- Finish Project plan
- Complete weekly sprint tasks
- Find weekly meet times
- Divide work
- Delegate tasks

5. Communications Plan

Weekly Standups:

Team members will meet once a week to discuss progress, blockers, and plans for the future. This will help us identify issues early on so that we can address them before they become too large. Weekly meetings will be held in the George Sherman Union (or Mugar Library) on Tuesdays at 3pm-5pm and 6:15pm-7pm.

Sprint Planning & Retrospective:

We will/are already using Jira to create tickets to keep track of our sprints. We will all be on Jira to see our progress. At the end of our sprints, we will review the work we completed and ask team members for feedback.

Visual:

Purpose	**Location**	**Address**
Weekly Meeting	George Sherman Union	Mugar and/or Back Court
Standups	Zoom	Zoom
Communication	Slack	Spark! Bytes (name)