Park me – Group 7

Fall semester 2023 --- CSC 4350 Mon-Wed 12:30-2:15

Team:
Jay Patel
Seth Quiros
Hieu Vu
Wajeeha Mehr
Christopher Reed

Section 2: Brief Resumes

Jay Patel:

Eclipse, JAVA (3+), Python (1+), C (1+), MS Office (Excel, PowerPoint, Word)
Currently enrolled in a dual degree program for computer science (Master's and Bachelor's)
Currently doing data science certification through university certification program
Current Intern: Web developer at Pemdas Production LLC

Seth Quiros:

- Html 2 years
- C++ 2 years
- Unix 1 year
- Java 4 years

Hieu Vu:

A senior student with experience in web app and mobile app group projects.
Proficient in front-end development with a keen eye for design. Familiar with Android Studio and Flutter for mobile app design, along with JavaScript for web design. Eager to enhance communication skills and further develop back-end proficiency through this project.

Wajeeha Mehr:

Experience: Currently working at administrative Assistant

- Eclipse
- JAVA (3+)
- C (2+)
- MS Office (Excel, PowerPoint, Word)
- Linux
- Assembly language

Christopher Reed:

Section 3: Scheduling and planning table

Assignee Name	Task	Duration	Due Date
Jay Patel	Brief resume, Problem statement, writing and formatting the doc.	2hr	9/5/2023
Seth Quiros	Brief Resume, Setup communication, formatting the doc	2hr	9/5/2023
Hieu Vu	Context Diagram, Brief resume, Problem Statement	2hr	9/5/2023
Wajeeha Mehr	Context Diagram, Brief Resume, Making the diagram	2hr	9/5/2023
Christopher Reed			

Section 4: Problem Statement

1. **Product**: The ParkMe University Web Page is a user-centric platform designed to provide real-time parking information and registration, permit purchasing, and transportation options for the university community.
2. **Target Audience**: Students, faculty, staff, and visitors of the university.
3. **Problem**: Campus parking is often challenging due to limited space and lack of accessible information about parking availability, regulations, and alternatives.
   So, our users can use the website to register their space in advance while paying a little amount of money for registering in advance. (That means they are paying a little extra than parking fee.)
4. **Solution**: The ParkMe web page aims to address this issue by offering real-time parking availability updates, permit purchasing, comprehensive parking guidelines, and information on alternative transportation.
   For our customers, we would also like to develop a payment system that would allow them to reserve a spot in advance for a certain parking lot. For instance, if a student wishes to leave and return or if they desire a spot for the entire month.
5. **Alternatives**: Currently, users rely on physical signage, word-of-mouth, and generic maps for parking information. Some universities have basic online parking systems, but they often lack real-time data and user-friendly interfaces.
6. **Describe the top-level objectives, differentiators, target customers, and scope of your product:**

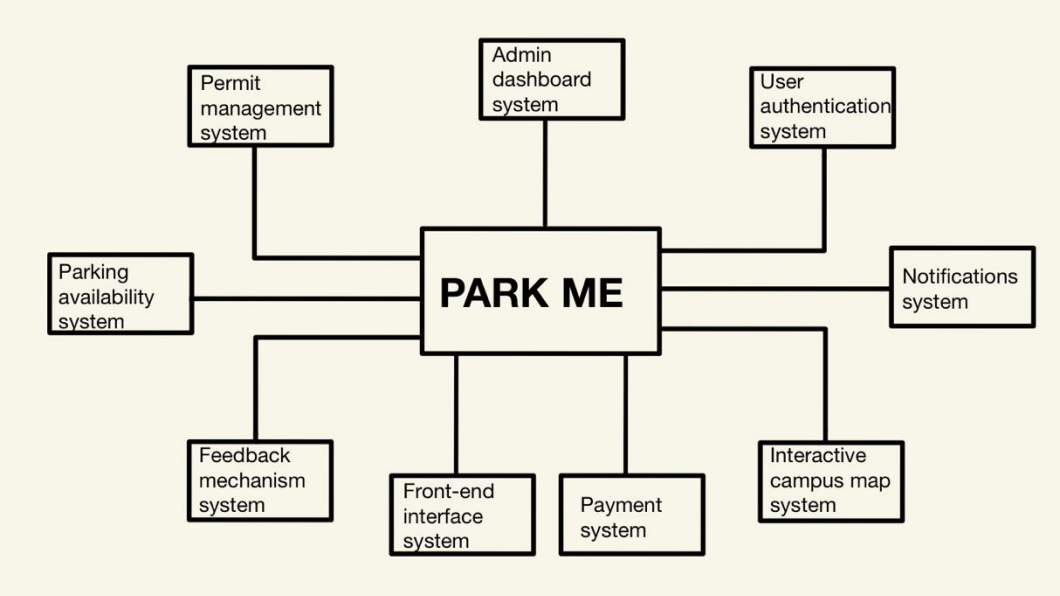
   Objectives: The primary goal is to provide a user-friendly platform that enhances the parking experience on campus.

Differentiators: Real-time parking availability, online permit management, interactive campus map, alternative transportation options, and user feedback mechanism.
Target Customers: Students, faculty, staff, and visitors who commute to the university.
Scope: The web page will display real-time parking availability, offer permit purchasing and management, provide parking guidelines, highlight alternative transportation options, and allow user feedback.

7. **Competitors and Novel Approach**: Existing solutions lack real-time updates and comprehensive information. Our novel approach includes integrating dynamic parking availability data and offering a seamless user experience.
8. **Technical Perspective: The** ParkMe web page can be developed effectively utilizing available resources and technology. It will be designed using modern web technologies to ensure responsiveness across devices.

9. **Client Login and Admin Login**: The system will have both client and admin logins. Clients (users) will access features like real-time parking availability, permit purchasing, and alternative transportation information. Admins will manage parking data, permits, and user feedback.

Section 5: System Architecture



The system architecture comprises the following components/modules:
1. Front-end Interface: This module provides the user interface for clients to interact with the system.
2. User Authentication: Handles user login, registration, and profile management.
3. Parking Availability Module: Integrates with real-time parking data to display current parking availability.
4. Permit Management: Allows users to purchase, renew, and manage parking permits.
5. Interactive Campus Map: Displays parking lot locations, traffic flow, and walking routes.
6. Notifications: Sends push notifications or emails to users regarding permit expirations and updates.
7. Feedback Mechanism: Enables users to report issues, offer suggestions, and provide feedback.

8. Admin Dashboard: Provides admin functionalities to manage parking data, permits, and user feedback.
9. Payment System: For our customers, we would also like to develop a payment system that would allow them to reserve a spot in advance for a certain parking lot. For instance, if a student wishes to leave and return or if they desire a spot for the entire month.

This architecture ensures seamless interaction between the user interface, real-time data integration, user management, and administrative functions, creating a comprehensive and user-friendly parking solution.

In addition:

Teamwork Basics:
Summarize the following sections in the Teamwork Basics documents using your own words and provide examples using personal experience in this class or other classes or internships:
o Ground Rules:
Norms1
Work Norms: How will work be distributed? Who will set deadlines? What happens if someone doesn't follow through on his/her commitment (for example, misses a deadline)? How will the work be reviewed? What happens if people have different opinions about the quality of the work? What happens if people have different work habits (e.g., some people like to get assignments done right away; others work better with the pressure of a deadline)
Norms2
Facilitator Norms: Will you use a facilitator? How will the facilitator be chosen? Will you rotate the position? What are the responsibilities of the facilitator?
Norms3
Communication Norms: When should communication takes place and through what medium (e.g., do some people prefer to communicate through e-mail while others would rather talk on the phone)?
Norms4
Meeting Norms: What is everyone's schedule? Should one person be responsible for coordinating meetings? Do people have a preference for when meetings are held? Where is a good place to hold meetings? What happens if people are late to a meeting? What happens if a group member misses a meeting? What if he/ she misses several meetings?
Norms5
Consideration Norms: Can people eat at meetings? smoke? What happens if someone is dominating the discussion. How can norms be changed if someone is not comfortable with what is going on in the team?