COSC 4P02 Project Proposal Report: Event Management and Ticketing Platform

GitHub Page: https://github.com/DerfTastic/COSC_4P02

Team Members:

- Sinatra Almeida (7060049)
- Jacob Applebaum (7215031)
- Joycelyn Chan (7239486)
- Taylor Chapman (7178577)
- Parker TenBroeck (7376726)
- Benjamin Williams (6953954)

Introduction

This project will be a Software-as-a-Service (SaaS) tool that allows users to create, promote, and manage events while providing a streamlined ticketing system. This platform is ideal for event organizers seeking an all-in-one solution for handling registrations, payments, and attendee engagement. The platform will be assessed using a webpage with back end support for event coordination and ticketing services.

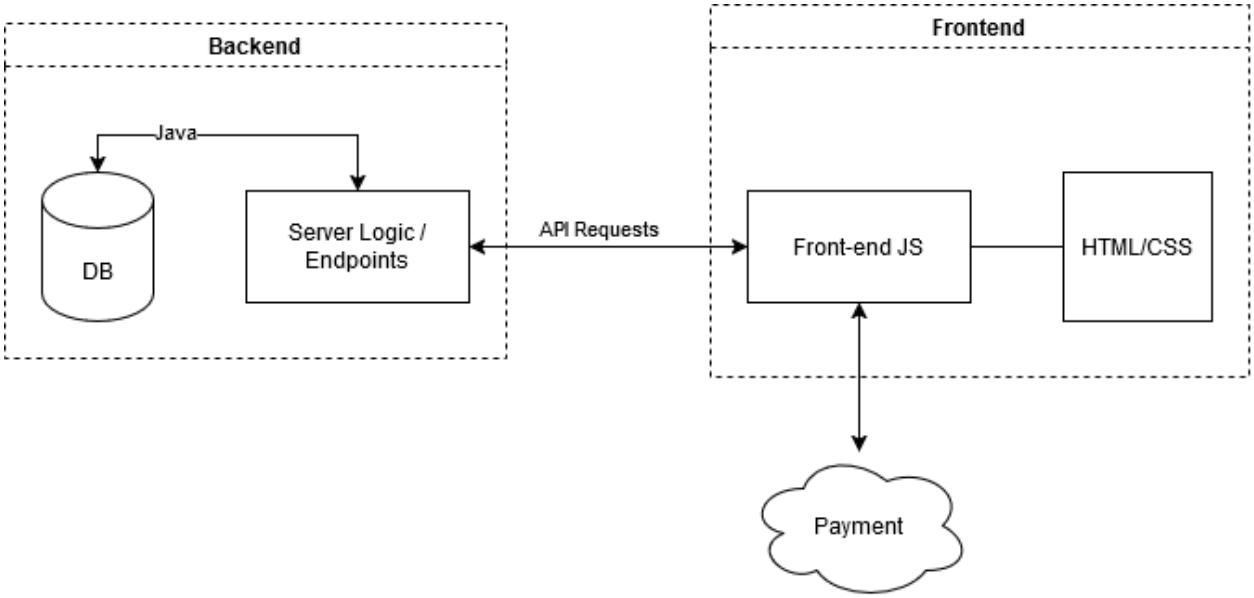
Objectives

Our objective is to develop a convenient and accessible platform for individuals who wish to create or partake in events. The event management and ticketing service must be:

- Flexible
- Reliable
- Intuitive
- Accessible

This service provides functionality for creating, organizing, and detailing events. Both event organizers and event attendees will have the ability to use the service for free, but organizers who wish to create and manage multiple events, have access to advanced analytics or use other premium features will be charged a fee. Furthermore, the service offers a platform for individuals to securely purchase tickets for an event. The secondary objective of this project is to develop an open source SaaS service for mutual transparency between stakeholders and consumers.

Description



The diagram above describes the architectural design of the Event Coordination and Ticketing service.

The backend will be written in java with a custom framework build for serving web content and handling backend database requests. A SQL database will be used for holding all information that must be retained, It will likely be Sqlite or Postgres. The Java backend and Javascript frontend will be developed together to find a web API that is best suited for the needs of this platform and the needs of both languages and environments. Payment will be performed through existing secure online payment systems such as Paypal. The payment will be performed on the client side to ensure trust and security for client payment information. The receipts will be independently checked on the server side to ensure the transaction is legitimate.

Features

General Features of this software service include the following:

1. **Account Registration:**
    - Profile
        i. Name
        ii. About me
        iii. Publicly listed events attended
        iv. Attendee **OR** Event Coordinator
2. **Events List:**
    - Search
    - Sort
    - Filter
    - Recommendations
3. **My Tickets:**
    - View the tickets you've purchased
4. **Online Ticket Sales:**
    - Support for multiple ticket types (child, student, adult, etc)
        i. Integrated payment gateways
        ii. Automated e-ticket delivery(email).
5. **QR-Code Check-In:** Fast attendee check-in using unique QR codes.

Event Coordinators will have access to the following features:

1. **Event Page Creation:** Customizable event pages with branding, multimedia, and detailed event information.
    - Event Pages:
        i. Customizable font
        ii. Banner
        iii. Background
        iv. Content: Event description, Cost
2. **Attendee Dashboard:**
    - Real-time tracking of ticket sales.
    - revenue.
    - attendee lists
    - options to send reminders and follow-ups.
3. **Promotion Tools**:
    - Social media sharing and discount codes for boosting ticket sales.
4. **Analytics and Feedback:**
    - Post-event insights.
    - attendee feedback collection

    - engagement metrics.
5. **Pro Features**:
    - Multi-event management
    - API access

Importance

The importance of this project is expressed by the unique features it offers for professional event coordinators and average consumers. Unlike contemporary software alternatives, the event coordination and ticketing service is completely available to any individual interested in effectively organizing an event. Professional features are available for a fee. Furthermore, the service will be open source under the GPL 3.0 license. Having the service be open source provides a form of transparency between stakeholders, such as event coordinators, and consumers, such as attendees.

Software Engineering Process

Our team will utilize the **agile software development process** for this project. The specific agile method our team will use in development of the service is **scrum**. Weekly scrum meetings will occur each **Thursday** from **3:00PM - 4:00PM**. These meetings will be concerned with sprint planning, with the team executing sprints between scrum meetings. A new iteration of the service will be produced after each sprint and will be discussed at the following scrum meeting. The later half of each meeting will be a sprint review, where the specified product owner on our development team will perform the necessary duties of the role.

Testing the Event Coordination and Ticketing Service will be done using unit tests through **JUNIT**.

Development Team Roles

1. Benjamin Williams
    a. **Product Owner**
        i. Create user stories
    b. Backend with Java+SQL (if assistance needed)
    c. Assist with testing
2. Jacob Applebaum
    a. Team Leader
    b. Implement payment (if required)
    c. Create automated testing environment
3. Parker TenBroeck

    a. Backend with Java+SQL
    b. API client/server
    c. Assist with testing
4. Joycelyn Chan
    a. Scrum master
    b. High-level front-end Design
    c. Front end developer
5. Sinatra Almeida
    a. Front end developer
        i. HTML + CSS Design
        ii. Request making (code)
            1. Event DB access
            2. Analytics/tracking
        iii. Director of front end development
6. Taylor Chapman
    a. Front end developer
        i. HTML + CSS Design
        ii. Request making (code)
            1. Event DB access
            2. Analytics/tracking