



CERIA CHECK IN & PAYMENT SYSTEM

Campus Event Check-In System

Company Name: TT1L_G5

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Overall Context Object

Based on the requirements of the project, the context object (entities) that would be involved in the system are:

| Context Object | Description |
|-----------------|---|
| Device | The main point of interaction between the users. |
| Internet | Required for real-time check-ins, database access, payment processing, and syncing. |
| System | The campus check-in system is being developed, which manages check-ins, ticketing, and integration with other services. |
| Admin | University staff who oversee event approvals, monitor attendance, and manage system settings. |
| Students | University Students who will use the system to check-in to the events or pay for items |
| Vendor | Sellers registered to sell items during the event |
| Payment Gateway | To handle on-the-spot payment methods. |
| QR Code | Used for check-ins by scanning the QR code. |
| Database | Storing data such as Users, check-ins and payments data. |

1.0 Description Of The System

Our Campus Check In System is an all in one platform aimed primarily towards university students holding on-campus events. The system offers a dedicated interface for three primary users, admin, student, and vendor. The admins are responsible for creating and assigning vendors to their respective events. They are also the one who will take the student's attendance using a function that is unique to admins. The vendors can register for an account to be used inside the system where they will be able to track purchases made by the students during the duration of the event. The students can use the system to easily search events that are happening around campus and either purchase a ticker or directly scan the attendance given by the admins when entering the event area.

1.1 How Student System Work

1. Students browse events that are happening around campus.
2. Students purchase a ticket / Book a free ticket.
3. Students arrive at the gate and scan the qr code provided by the admins.
4. Students can enter the event.

1.2 How Vendor System Work

1. Vendors register for an account and apply to join an event.
2. Vendors can use the included POS System inside to track payment made by the students.
3. Vendors can export the final report anytime from within the Vendor Interface.

1.3 How Admin System Work

1. Admin can create events
2. Admin can accept vendor applications to sell during the event or assign one.
3. Admin can generate attendance qr code for student attendance.
4. Admin can view the list of students who attended a particular event

2.0 System Purpose and Scope

2.1 Purpose

The purpose of this project is to develop a digital check-in system for campus events that integrates with the university's student identification database and payment processing system. This system aims to streamline event attendance tracking by automating check-ins through student ID verification and ticket validation, reducing manual effort and errors. Additionally, it facilitates secure on-site purchases such as food, merchandise, or services, and provides organizers with real-time data and analytics for better event management and reporting. The platform ultimately enhances the efficiency, security, and convenience of campus event operations for both students and staff.

2.2 Scope

The system would allow participants and vendors to check in for an event via QR for a seamless, user-friendly experience. Features include real-time notifications, on-the-spot payment integration, and a rating system for the event. It will not include mapping integration, third-party map systems, or outdoor navigation.

3.0 External Entities

| Entity | Type | Role |
|-----------------------|-----------------|---|
| Students | User | Use the system to check-in t events and make payments to vendors. |
| Admin | User | Create events, monitor attendance and manage vendor assignments. |
| Vendor | User | Registered seller for the event. |
| Device | Hardware | Handheld device operated by the users to interact with the system |
| Internet Connectivity | Infrastructure | Provides connectivity for the app to work properly |
| QR Code | Data Input | Generated to handle student check-ins |
| Database | External System | Stores user data, check-in records and payment history |
| Payment System | External System | Handle payment made to the vendors |

4.0 Interfaces

4.1 User Interfaces (UI)

The system provides a responsive mobile interface, which includes a UI designed specifically for each of the users of the system.

4.1.1 Student Interface

The student interface provides the user with options to

- View list of events happening inside the campus
- Register for events (if applicable)
- Check-in to events
- Make payments during the event
- View Check-in history

4.1.2 Admin Interface

The admin interface allows the admins to

- Create new events
- Monitor attendance during the event
- Generate attendance report
- Manage vendor application for each event

4.1.3 Vendor Interface

Vendor interface let sellers to

- View real time sales data
- Generate sales report

5.0 Operational Environment, Assumptions

5.1 Operational Environment

The system operates as a mobile application for both Android and IOS. It requires stable internet connectivity for check-in and payment systems.

5.2 Assumptions

1. A stable internet connection is available on campus on the location of the event.
2. The university will provide access to the student database.
3. Third-party payment gateway will be available and reliable during peak usage time.
4. Vendors will apply for a spot in advance and be approved by the system admin.