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**Term 2510**

**CSE 6224 SOFTWARE REQUIREMENTS ENGINEERING**

**Title: Campus Event Check-in System with Student ID and Payment Integration**

**Tutorial:** TT1L

**Group No:** Group 3

**Group Member:**

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1. **Introduction**

This document identifies and describes the context objects (actors, external systems, and physical objects) and requirements sources for the Campus Event Check-in System. The system integrates with the university’s Student Identification Database and Payment Processing System to streamline event attendance tracking, ticket verification, and on-site purchases.

1. **System Boundary**

The system interacts with:

* Actor: Students, Event Organizer, Admin
* External Systems: Student Identification Database, Payment Processing System, University Event Calendar
* Physical Objects: Student Id Card, Check-in Station, Mobile Devices

1. **Context Objects**

**3.1 Actors**

|  |  |  |
| --- | --- | --- |
| Actor | Role | Interaction with System |
| Student | * Primary user * Register for events * Check in * Purchase ticket | * Log in via Student ID * Edit Profile * Browses events * Registers for events * Scans QR/ID at check-in * Pays for tickets online * View/download QR code * View purchase history * Refund |
| Event Organizer | * Manage events * Verify ticket * Track attendance * Assist on-site ticket purchases * View attendance reports | * Add, edit and delete events * View and generate attendance reports * Validate check-in * Monitor and update attendance * Help students buy tickets on-site |
| Admin | * Manage student account * Manage Event * Reconciles payment * Generates revenue reports * View attendance reports | * Modify student account information * Create, edit event details * Create financial reports on ticket sales * Audits transactions * View and generate attendance reports * Handle request refund |

**3.2 Requirements Sources**

**External Systems:**

* Student Identification Database:
  + Validated student credentials and enrollment status in real time
  + Provides secure access to student profile for editing
* Payment Processing System:
  + Facilitates online and on-site ticket purchases and refund
  + Secures transaction data and syncs payment records with revenue reports
* University Event Calendar:
  + Syncs event details (date, time, venue) for student browsing
  + Prevent scheduling conflicts by auto-updating event availability

**Physical Components:**

* Mobile Devices:
  + Students use smartphones to display QR tickets
  + Event organizers use tablet or mobile to scan QR ticket, process on-site purchase, and view attendance dashboard, manage event
* Desktop Devices:
  + Admin handle refund request, view attendance report, manage event

1. **Context Diagram**

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1. **Assumptions and Constraints**

Assumptions

* All students have valid student IDs for login and check-in
* Event locations will have internet access
* The University Events Calendar will provide accuracy of event details
* Students will use their smartphones or devices to scan QR codes for check-in

Constraints

* Must comply with university data policies
* Payment processing must use approved vendors
* System must work with existing Student ID formats