**Context Objects and Requirements Sources**

**1. Context Objects**

**a. Material Objects**

1. **Mobile Devices**
   * Used by event staff or attendees for check-in purposes
   * May run mobile versions of the check-in app
   * Supports payment processing or registration tasks
2. **Event Venue**
   * Physical locations where events take place
   * Must support network connectivity and access control
   * Venue capacity affects event planning and attendance limits
3. **Student ID Card**
   * Contains student identification data (e.g., name, student number)
   * Used for authentication and access during events
4. **Lanyard/Wristband**
   * Used for attendee identification during events
   * Indicate valid entry status

**b. Immaterial Objects**

**Primary Systems:**

1. **Campus Event Check-in System** (our system)
   * Core application for managing event check-ins
   * User interfaces for attendees and organizers
   * Database for event data storage
2. **University Student ID Database**
   * Contains student identification information
   * Provides authentication services
   * Stores student profile data
3. **University Payment Processing System**
   * Handles financial transactions
   * Processes credit/debit cards
   * Manages refunds and transaction records

**Secondary Systems:**

1. **University Event Calendar System**
   * Lists upcoming campus events
   * Provides event details and schedules
2. **University Access Control System**
   * Controls physical access to venues
   * Manages room bookings and venue capacities
3. **University Mobile App Platform**
   * Potential integration point for mobile check-in
   * Existing app framework used by students

**Human Actors:**

1. **Event Attendees (Students)**
   * Primary users who will check in to events
   * May make purchases at events
2. **Event Organizers**
   * Create and manage events
   * Monitor attendance and generate reports
   * Process on-site registrations and payments
3. **University Administrators**
   * Oversee system usage and compliance
   * Access aggregated data and reports
4. **IT Support Staff**
   * Maintain the system and troubleshoot issues
   * Handle technical inquiries
5. **Event Staff**
   * Operate the check-in system during events
   * Assist attendees with check-in process

**External Entities:**

1. **External Event Participants**
   * Non-university individuals attending campus events
   * May require alternative check-in methods
2. **External Payment Providers**
   * Third-party payment processors that interact with the university payment system
   * Credit card companies and banking institutions
3. **Regulatory Bodies**
   * Privacy commissioners and data protection authorities
   * Financial regulatory bodies

**2. Requirements Sources**

**Primary Sources:**

1. **Stakeholder Interviews**
   * Event organizers from different departments
   * Student representatives
   * University administration
   * IT department staff
   * Finance department personnel
2. **Existing System Analysis**
   * Current manual check-in procedures
   * Existing payment processing systems
   * Student ID database structure and APIs
   * University event management systems
3. **University Policies and Guidelines**
   * Data privacy and protection policies
   * Financial transaction regulations
   * Event management procedures
   * Student ID usage policies
4. **User Surveys**
   * Student satisfaction with current event processes
   * Event organizer pain points and needs
   * Preferred features and functionalities

**Secondary Sources:**

1. **Industry Standards and Best Practices**
   * Event management software benchmarks
   * Digital payment security standards
   * Identity verification best practices
   * Accessibility standards
2. **Competitive Analysis**
   * Similar systems at other universities
   * Commercial event check-in solutions
   * Mobile payment application features
3. **Documentation Review**
   * Technical documentation of existing systems
   * API documentation for integration points
   * System architecture documents
4. **Observation Sessions**
   * Observing current check-in procedures at events
   * Monitoring payment processing activities
   * Analyzing attendee behaviour and pain points

**Regulations and Compliance Sources:**

1. **Data Protection Laws**
   * Local data privacy regulations
   * Student information handling requirements
2. **Financial Regulations**
   * Payment card industry (PCI) compliance
   * University financial handling procedures
3. **Accessibility Requirements**
   * University accessibility standards
   * Legal accessibility requirements

**3. Requirements Elicitation Methods**

1. **Interviews and Focus Groups**
   * Structured interviews with key stakeholders
   * Focus groups with diverse user representatives
2. **Surveys and Questionnaires**
   * Online surveys to gather quantitative data
   * Targeted questionnaires for specific user groups
3. **Observation and Contextual Inquiry**
   * Direct observation of current event processes
   * Shadowing users during relevant activities
4. **Document Analysis**
   * Review of existing process documentation
   * Analysis of current system specifications
5. **Prototyping and User Testing**
   * Interactive prototypes to validate concepts
   * Usability testing with potential users
6. **Workshops and Brainstorming Sessions**
   * Collaborative requirement gathering sessions
   * Creative problem-solving workshops