System Interface:

The system interface requirements describe how the Campus Event Check-in System interacts with external systems such as the university's student database, payment gateway, event management modules, and notification services. These interfaces are critical for retrieving student credentials, processing payments, managing event data, and ensuring real-time communication. The table below outlines the technical format, data exchange protocols, and integration priorities for each external system the platform depends on.

| Interface ID | Interface | Description | Data Format / Protocol | Priority |
| --- | --- | --- | --- | --- |
| REQ\_SI001 | University Student Database | Enables the system to retrieve student data (Student ID, name, enrollment status) for verifying check-in eligibility. | REST API – JSON over HTTPS | High |
| REQ\_SI002 | Payment Gateway | Validates real-time payment status during event registration or ticket purchases and returns confirmation tokens. | REST API – JSON over HTTPS | High |
| REQ\_SI003 | Event Management System | Retrieves and updates event details such as event name, date, venue, participant limit, and status. | REST or SOAP API – XML/JSON | Medium |
| REQ\_SI004 | Notification System / Email Service | Sends registration confirmation and reminders to users' emails or mobile devices after successful check-in or payment. | SMTP / HTTPS | Medium |

*Table 1 System Interface Requirements*