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**FACULTY OF COMPUTING AND INFORMATICS**

**CSE6224 – SOFTWARE REQUIREMENTS ENG**

**GROUP: G07**

**SESSION: TT4L**

**PROJECT TITLE: University Communication and**

**Services Portal with Campus Management System and SMS Gateway Integration**

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| **Student Name** | **Student ID** |
| Yang Jia En | 242UC2451Q |
| Teoh Xuan Xuan | 242UC2451P |
| Tey Jun Cheng | 242UC2452Z |

Submitted to: Dr. Zarina binti Che Embi

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# 1.0 **Context Objects**

## 1.1 **Identified Context Objects**

*Table 1: Identified Context Objects Table*

|  |  |
| --- | --- |
| **Context Object** | **Description** |
| Student | Primary users accessing academic, billing, and attendance data. |
| Lecturer | Interacts with academic records and communicates announcements. |
| Admin | Manages data, user accounts, and controls system configuration. |
| Parent | Receives updates via SMS; passive user. |
| Campus Management System | External system integrated for data retrieval. |
| SMS Getaway | Sends alerts such as low attendance or billing reminders. |
| Academic Performance Data | A key data source for student progress reporting. |
| Attendance Records | Used to trigger alerts and calculate attendance percentages. |
| Billing System | Manages tuition, fees, and payment history. |
| Announcement Modules | Enables official university announcements through the portal. |

## **1.2 Requirement Sources**

*Table 2: Requirement Sources*

|  |  |
| --- | --- |
| **Context Object** | **Requirement Source Type** |
| Student | Stakeholder |
| Lecturer | Stakeholder |
| Admin | Stakeholder |
| Parent | Stakeholder |
| Campus Management System | External System |
| SMS Getaway | External System |
| Academic Performance Data | Data Source |
| Attendance Records | Data Source |
| Billing System | External System |
| Announcement Modules | Feature Context |

# 2.0 Context Object & Requirement Source Table

Table 3: Identified Context Objects Table

|  |  |  |
| --- | --- | --- |
| Context Object | Type | Description |
| Student | Stakeholder | Accesses academic and billing info; receives alerts |
| Lecturer | Stakeholder | Manages academic data and communicates with students |
| Admin | Stakeholder | Maintains backend system, sends announcements |
| Parent | Stakeholder | Receives SMS alerts regarding student performance and billing info |
| Campus Management System | External System | Provides academic, attendance, and billing data |
| SMS Getaway | External System | Sends critical alerts to stakeholders |
| Academic Performance Data | Data Source | Used to generate academic summaries and progress reports |
| Attendance Records | Data Source | Used to send low attendance alerts |
| Billing System | External System | Manages fee structures and payment status |
| Announcement Modules | Feature Context | Sends notices to students and lecturers |

These objects represent all the key actors and data points the system must interact with to fulfill its purpose. They reflect the entire ecosystem from users to backend systems.

Each requirement source provides insights into what features are necessary, what constraints must be considered (e.g., SMS delivery limits, access roles), and what data must be secured and displayed appropriately.

# 3.0 Summary

This document identifies and classifies the key context objects and their respective requirement sources for the development of the University Communication and Services Portal. These objects represent critical actors and data systems the portal must interface with to fulfill its goal of delivering accessible academic and administrative services.

Stakeholders such as students, lecturers, administrators, and parents are recognized as primary context objects, while external systems like the Campus Management System and SMS Gateway serve as essential data providers. Internal data sources such as academic performance records, attendance logs, and billing systems have also been highlighted for their role in enabling features like alerts and reporting.

By mapping each context object to its requirement source type, the team ensures comprehensive coverage of system dependencies and user needs. This foundational work supports accurate requirement elicitation in later phases and ensures alignment with the system’s intended scope and functionalities.

# Change Log Table

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Author | Changes Made |
| v1.0 | 23 May 2025 | Teoh Xuan Xuan | Added project cover page, created version history log table |
| v1.1 | 24 May 2025 | Teoh Xuan Xuan | Update Project Title and Table of Content |
| v1.2 | 24 May 2025 | Teoh Xuan Xuan | Update format |
| v1.3 | 24 May 2025 | Yang Jia En | Changed table of contents, added contents |