



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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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