**Task 2**

**Context Objects - Software Requirements Specification**

***Human Actors***

| **ID** | **Context Object Name** | **Type** | **Description** | **Interaction with System** |
| --- | --- | --- | --- | --- |
| CO1 | Student | Human Actor | University student accessing academic and admin services via the portal | Logs in to view schedules, grades, register for courses, pay fees, and receive notifications |
| CO2 | Parent or Guardian | Human Actor | Individual monitoring student’s academic progress and fee status | Logs in to view grades and attendance. Receives related SMS alerts |
| CO3 | Lecturer | Human Actor | Faculty managing student learning records and communication | Login, uploads grades, marks attendance, uploads course materials, sends announcements |
| CO4 | Administrator | Human Actor | Staff managing the platform, user access, and system settings | Manages system users, configures portal, uploads announcements |

***Non-Human Entities***

| **ID** | **Context Object Name** | **Type** | **Description** | **Interaction with System** |
| --- | --- | --- | --- | --- |
| CO5 | Campus Management System | External System | Existing system storing core student data like grades, attendance, billing info | Provides real-time academic and billing data |
| CO6 | SMS Gateway | External Service | Sends SMS alerts such as attendance alerts, fee reminders, academic updates | Sends out automatic alerts based on system triggers |
| CO7 | Authentication Service | External Service | Validates login credentials which is student ID and password via centralized login portal | Used during user login/logout |
| CO8 | University Academic Calendar System | External System | Manages academic dates like exams, course add or drop deadlines | System pulls academic event data to show in portal |
| CO9 | Learning Management System | External System | System hosting learning materials and assignments such as Moodle | Accessed by students and lecturers via links or integrations |
| CO10 | University Database | Data Store | Stores users, logs, preferences, and system-specific info | Used by all system modules |
| CO11 | Notification Scheduler | Internal Module | Engine for scheduling and queuing alerts (SMS or in-app) | Automatically triggers messages based on events or thresholds |
| CO12 | Course Management Module | Internal Module | Enables students to view/register for courses and lecturers to manage them | Allows course selection and updates |
| CO13 | Attendance Module | Internal Module | Records and tracks student attendance | Used by lecturers to mark attendance and the system aggregates data |
| CO14 | Announcement Module | Internal Module | Central hub for all internal announcements by admin, lecturer or system-wide | Delivers system, academic, or urgent announcements to users |
| CO15 | IT Support and Helpdesk Module | Internal Module | Interface for users to report issues or get help | Allows ticket submissions and admin responses |
| CO16 | Library System | External System | Provides book availability, due dates, and fines | Students can view their borrowing status |

**Sources of Requirements - Software Requirements Specification**

1. Stakeholders

| **Stakeholder** | **Description** |
| --- | --- |
| Student | Students require access to academic and administrative services such as grades, attendance, schedules, course registration, fee payments, and notifications. |
| Parent/Guardian | Parents or guardians need access to view their child’s academic progress and receive SMS alerts related to attendance and fees. |
| Lecturer | Lecturers input and manage student academic data including grades, attendance, and course materials. They also communicate announcements. |
| Administrator | Admin staff manage the platform settings, user accounts, announcements, and ensure integration with academic policies. |

2. Existing System

| **System** | **Description** |
| --- | --- |
| Campus management system CMS (clic) | Stores and shares student records including grades, billing, and attendance. Needs to integrate with the new portal. |
| Authentication Service | Handles login and logout using centralized credentials (e.g., student ID and password). |
| Learning Management System LMS (ebwise) | Hosts learning materials and assignments. Integrated through the portal. |
| University Database | Backend data storage for user profiles, system logs, and preferences. |

3. Documents

| **Source** | **Description** |
| --- | --- |
| University Academic Policies | Define requirements for grade reporting, attendance monitoring thresholds, and course registration rules. |
| Fee Structure and billing Guidelines | Establishes timelines for payments, late fee rules, and reminder policies. |
| Communication Protocols | Outlines how and when SMS/email alerts should be sent, who receives them, and the format for announcements. |
| IT and Admin Workflows | Includes administrative procedures for user access, support ticket handling, and system configuration. |