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**CSE6224 SOFTWARE REQUIREMENTS ENGINEERING TRIMESTER 2510**

**PROJECT PART 1: Context Objects**

**Lecture section: TC1L**

**Tutorial section: TT3L**

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| **Student Name** | **Student ID** |
| **Morgan Lee Guan Han** | **1211107272** |
| **ABDUL NASSER KOLATHUMKARA, MUHAMMED NAZIM** | **S-241UC241F9** |
| **Amir Hamzah bin Ahmad Shukri** | **1211106241** |

# 1. Introduction

This document outlines the relevant context objects for the Campus Accessibility Navigation System being developed for Multimedia University (MMU) Cyberjaya. These objects provide a comprehensive understanding of the entities, systems, and stakeholders that interact with or influence the design and operation of the system.

# 2. Context Object Categories

## 2.1 Institutional Entities

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| --- | --- | --- |
| **Name** | **Description** | **Interaction with System** |
| Facilities Management Department | Handles construction schedules, maintenance, and infrastructure data. | Supplies live data on construction zones, elevator outages. |
| Student Affairs & Events Office | Manages university events and temporary venue setups. | Provides event data, impacts navigation planning. |
| Disability Support Services | Advocates for students with accessibility needs. | Provides accessibility requirements and feedback. |

## 2.2 User Stakeholders

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| --- | --- | --- |
| User Type | Description | Role in System |
| Students | End-users navigating the campus. | Use system for route planning. |
| Faculty and Staff | On-campus personnel needing accessible paths. | Use for daily navigation and reporting. |
| Visitors | Newcomers needing campus orientation. | Access public routes and event info. |
| Event Organizers | Coordinate venue and crowd movement. | Notify about temporary access changes. |
| System Administrators | Maintain backend and integrations. | Manage data sources and user roles. |

## 2.3 Digital Systems and Data Sources

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| System | Description | Data Provided |
| Campus Map System (GIS) | Contains layout of campus paths and buildings. | Base data for route planning. |
| Elevator Monitoring System | Monitors operational status of elevators. | Real-time elevator availability. |
| Construction Alert System | Tracks maintenance and work areas. | Sends warnings and restricted zones. |
| University Events Calendar | Lists all planned campus events. | Used to anticipate temporary route changes. |
| MMU Authentication System | Login platform (e.g., SSO). | Identifies users and role-based access. |

## 2.4 Physical Environment

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| Object | Description | Relevance |
| Buildings | Academic and administrative structures. | Nodes in the navigation system. |
| Pathways & Ramps | Campus walkways and accessible routes. | Main navigational elements. |
| Elevators | Accessibility enablers inside buildings. | Must be tracked for accessibility. |
| Temporary Venues | Tents, booths during events. | Create temporary navigation challenges. |

## 2.5 External Technologies

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| Technology | Description | Purpose |
| Google Maps API / Leaflet.js | Map rendering libraries. | Display visual routes. |
| Web Hosting Platform | e.g., Heroku, Vercel, etc. | Hosts the web application. |
| Django Framework | Backend framework used in development. | Powers the web app logic and routing. |

# 3. Conclusion

Identifying and understanding these context objects is essential for ensuring that the Campus Accessibility Navigation System is accurately tailored to user needs and institutional realities. These insights will guide design, development, and integration throughout the project.