Revisions

| Version | Primary Author(s) | Description of Version | Date Completed |
| --- | --- | --- | --- |
| 1.0 | Hesham | Categories added, drafted up examples for objects | 18/04/2025 |
| 1.1 | Nickleirsch | Drafted sources of requirements | 19/04/2025 |
| 1.2 | Lim Xin Yee | Drafted development context objects | 21/04/2025 |
| 1.3 | Nickleirsch | Explanation for material context objects | 22/04/2025 |
| 1.4 | Nickleirsch | Explanation for immaterial context objects | 22/04/2025 |
| 1.5 | Danesh Veran | Drafted more immaterial and development context objects | 23/04/2025 |
| 1.6 | Danesh Veran | Explanation for development context objects | 23/04/2025 |
| 1.7 | Hesham | Added a source of requirement | 24/04/2025 |
| 1.8 | Lim Xin Yee | Added a source of requirements | 24/04/2025 |
| 1.9 | Hesham | Fixed formatting | 24/04/2025 |
| 2.0 | Lim Xin Yee | Added sources for development context objects | 24/04/2025 |
| 2.1 | Hesham | Formatting | 05/05/2025 |
| 2.2 | Hesham | Deleted irrelevant objects | 05/05/2025 |
| 2.3 | Nickleirsch | Finalised Sources of Requirements | 06/05/2025 |
| 2.4 | Nickleirsch | Fixed formatting | 06/05/2025 |

Context Objects

Context objects are elements in and around the system that influence its design and behaviour. We can divide them into two main categories – material and immaterial.

Material Context Objects:

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| **Object** | **Sources** | **Explanation** |
| Students | Project Guidelines (Document) | Expected to be the primary users of the system; access academic data, receive notifications, view attendance, etc. |
| Lecturers | Project Guidelines (Document) | Educators who will enter academic records, view student data, communicate updates, etc. |
| Administrators | Project Guidelines (Document) | Manage system access, maintain academic and financial records. |
| Parents | Project Guidelines (Document) | Receive academic and financial updates via SMS and view performance summaries. |
| University Database Servers | Existing System | Store academic records, attendance, billing info, and user profiles. |

Immaterial Context Objects:

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| **Object** | **Sources** | **Explanation** |
| Academic Processes | Existing System | Workflows like course registration, grading, and attendance tracking. |
| Communication Protocols | Technical Specification (Document) | Rules that define how messages are sent and received (e.g., email, sms format, response handling). |
| Administrative Processes | Existing System | Includes billing, scheduling, reporting, and system maintenance routines. |
| SMS/Notification Services | Technical Specification (Document) | Third-party or internal services used to deliver timely messages (alerts, reminders) to users. |
| API Integrations | Technical Specification (Document) | Interfaces that connect the portal with the campus management system, SMS gateway, etc. |
| Authentication and Access Control Policies | Technical Specification (Document) | Define how users securely log in (e.g., via single sign-on or otp), session timeouts and password rules. |
| Notification Prioritization and Escalation Logic | Communication Policy (Document) | Logic flow that determines the urgency and format of alerts. For example, critical alerts (e.g., payment deadlines, academic probation) are sent via sms + portal, while general reminders (e.g., campus events) are sent via portal only. |
| Localization and Language Settings | University demographics | Optional configurations to support multi-language capabilities and regional time/date formats, especially for institutions with international students or multi-lingual local populations. |

Development Context Objects:

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| **Object** | **Sources** | **Explanation** |
| Technical Environment | Project Guidelines (Document) | The hardware, software, and platforms used to develop, test, and deploy the portal. |
| IT Department | Company Website (System) | Responsible for designing, coding, testing, and maintaining the portal (developers, system admins, and project managers). |
| Budget & Timeline Constraints | Project plan (Document) | Cost limits and deadlines that influence scope, development speed, and resource allocation. |
| Version Control System | Internal development policies (Document) | Managing code changes, track development history, and support collaboration among developers. |
| Go-live date | Academic calendar (Document) | How and when the portal is rolled out to users |
| Maintenance and Support Plan | IT Department (Stakeholders) | Outlines post-launch support, including updates, bug fixes and scheduled maintenance. |
| Security Policies and Protocols | University guidelines (Document) | Rules ensuring secure coding, user authentication and data encryption. |
| Integration Testing and Staging Environments | IT Department (Stakeholders) | Allows safe development and testing before the go-live date |