
Context Objects and Requirements Sources

for

COMSYS

University Communication and Services Portal

Section: TT4L

Group: 4

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OneDrive link containing proof of execution: [SRE Items](#)

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1 Context Objects

Context objects are elements in and around a system that influence its design and behaviour. They fall into three main categories:

- Material context objects are tangible things like hardware.
- Immaterial context objects include policies, regulations, and cultural factors that shape requirements.
- Development context objects are tools, technologies, and processes used to build and maintain the system.

1.1 Material Context Objects

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

1.2 Immaterial Context Objects

Object	Sources	Explanation
Academic Processes	Student and Lecturer (Stakeholders)	Workflows like course registration, grading, and attendance tracking.
Administrative Processes	Admin (Stakeholders)	Includes billing, scheduling, reporting, and system maintenance routines.
SMS/Notification Service	Project Guidelines (Document)	Third-party or internal services used to deliver timely messages (alerts, reminders) to users.
API Integration	Project Guidelines (Document)	Interfaces that connect the portal with the campus management system, SMS gateway, etc.
Authentication and Access Control Policies	ISO/IEC 27001 (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	Lecturer and Admin (Stakeholders)	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	Student and Parent (Stakeholder)	Optional configurations to support multi-language capabilities and regional time/date formats.

1.3 Development Context Objects

Object	Sources	Explanation
IT Department	Admin (Stakeholders)	Responsible for designing, coding, testing, and maintaining the portal (developers, system admins, and project managers).
Go-live date	Academic Calendar (Document)	How and when the portal is rolled out to users
Maintenance and Support Plan	Admin (Stakeholders)	Outlines post-launch support, including updates, bug fixes and scheduled maintenance.
Security Policies and Protocols	ISO/IEC 27001 (Document)	ISO's ISMS globally recognized international standard for information security management system
Integration Testing and Staging Environments	Admin (Stakeholders)	Allows safe development and testing before the go-live date