



CSE 6224 Software Requirements Engineering

Trimester 2510

Context Objects

Project title:

Student Club Management System with Budget and Venue Integration

Tutorial Section: TT5L

Group Name: TT5L_G1

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1 Introduction

This document identifies context objects for the Student Club Management System with Budget & Venue Integration and highlights the sources from which its requirements will be derived. Clearly documenting these context objects and requirement sources helps clarify the system boundaries, ensure accurate requirements gathering, and streamline interactions with relevant stakeholders and systems during elicitation activities (Tasks 3 and 4).

2 Identified Context Objects

#	Context Object	Purpose & Interface with SCMS	Typical Data Exchanged	Real-world Reference
1	Student Club (External Actor)	Owns membership roster, finances, and event portfolio. Club officers log in to submit or update: <ul style="list-style-type: none"> club profile event proposals annual budgets. 	→ Club metadata, officer list, budget line-items, event plans	UPM list of registered student organisations (hep.upm.edu.my)
2	Club Member / Student	Authenticates via UPM-ID Single Sign-On; joins/leaves clubs; RSVPs to events; receives notifications and QR/event passes.	→ Student ID, RSVP status, attendance tokens	Student Organisation Directory page (hep.upm.edu.my)
3	Student Affairs Division (BHEP)	Regulatory owner of co-curricular activities. Reviews	⇔ Approval status, risk-assessment docs, audit logs	BHEP organisational

		new-club registrations, event approval forms, and post-event reports; audits spending.		pages (hep.upm.edu.my)
4	Finance Office – Putra Finance System	Receives approved disbursement requests; returns real-time ledger balances, payment status, and GL transaction IDs.	⇔ Budget codes, pay-out vouchers, live balance	Putra Finance system document (bursar.upm.edu.my)
5	ST Putra Facility Booking System	Embedded venue-search widget inside SCMS. Offers live capacity, clash detection, and booking confirmation; returns booking ID and cost centre.	⇔ Venue ID, date/time, booking status	UPM facility-reservation link (https://stputra.upm.edu.my/)
6	Student Activity Approval Form (Google Form / PDF)	Standard form clubs upload; captures risk matrix & budget. Triggers BHEP digital routing and e-signature.	→ Activity details, risk items, budget table	“Borang Permohonan Kelulusan Aktiviti Pelajar” Google-Form link (hep.upm.edu.my)
7	Notification Service (e-mel@UPM + push)	Sends system e-mails & push alerts for approvals, budget-outcome, or venue clashes. Uses	→ Recipient list, subject, payload	@UPM Mail user manual (IDEC)

		OAuth with UPM mail servers.		
8	UPM-ID / PutraVID Single Sign-On	Central identity provider; supplies JWT containing matric no., role, club-membership claims.	⇔ OAuth token, refresh token	PutraVID overview slide-deck (IDEC)
9	PUTRA Presence Attendance Platform	Event host launches mobile app to scan QR / beacon; SCMS imports attendance JSON for analytics & funding justification.	⇔ Check-in timestamp, student ID, session ID	PUTRAPresence landing page (PUTRAPresence)
10	Admin Dashboard (Internal Boundary)	Web UI where BHEP and Bursar officers review submissions, run reports, and trigger finance workflows.	Internal UI	SAP Student Administration module (SAP Help Portal)

3 Identified Requirements Sources

3.1 Stakeholders

#	Source	Expected Learning	Elicitation Method(s)
S1	Club Members	Ease of joining/leaving clubs, clarity of event info, mobile friendliness, accessibility (colour-contrast, font resize).	Survey
S2	Student Club Management System Project Team	Internal feature suggestions, system functionality refinement.	Brainstorming Session

3.2 Documents

#	Document / Source	Why it matters to SCMS	Access Link & Citation
D1	Manual Pelaksanaan Aktiviti Pelajar (V5)	Governs who may organise events and mandatory committee structure; defines submission timeline (≥ 30 days before event) and risk-assessment contents.	BHEP PDFs – e.g. “Manual Pelaksanaan Aktiviti Pelajar (V5)” (HEP UPM)
D2	Panduan Tuntutan Kewangan Aktiviti Pelajar	Lays out budget caps, permissible expense categories, receipt requirements, and audit checkpoints.	BHEP PDFs – e.g. “Panduan Tuntutan Kewangan Aktiviti Pelajar” (HEP UPM)

3.3 Existing Systems

#	Source	Relevance to SCMS	Access Method / Citation
X1	ST Putra Facility Booking System	Provides authoritative venue catalogue & clash-detection API.	ST Putra
X2	PUTRA Presence event-attendance platform	Models seamless QR / Bluetooth attendance capture integrated with UPM-ID.	PUTRAPresence
X3	Cornell CampusGroups	Mature SaaS showcasing combined club roster, budget request, and RSVP modules.	CornellUniversity
X4	Campus Labs Event Check-in mobile app	Demonstrates offline check-in, bulk CSV export, and multi-device scanning.	Google Play
X5	Eventbrite	Industry standard for public RSVP, automatic reminder e-mails, and ticket QR generation.	Eventbrite

4 Justification

The ten context objects span all data touch-points: human actors, forms, identity, legacy finance, venue, notification, and attendance services. Pairing them with rich requirement sources—policy docs (D-series), live platforms (X-series), and two stakeholders—ensures that the SCMS specification will simultaneously satisfy regulatory compliance, operational feasibility, and user-experience quality. Benchmark systems (X1-X5) provide proven workflows to avoid reinventing the wheel and to set performance baselines.

5 Conclusion

By mapping every external entity and authoritative reference in detail, the project team now holds a single, authoritative boundary definition for the Student Club Management System. These objects and sources will guide Tasks 3 & 4, guaranteeing that no regulatory rule, integration interface, or stakeholder expectation is overlooked during requirements elicitation and analysis.