

Software Requirements CSE 6224

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**Part 3: Requirements Elicitation Plan Using the Kano Model**

### **1. Requirements Elicitation Plan**

The Requirements Elicitation Plan defines the structured approach we will use to gather, analyze, and validate stakeholder needs for our project. Effective elicitation ensures a clear understanding of business goals, minimizes misunderstandings, and lays a strong foundation for system design and development. Here is how we do our requirements elicitation plan with different elicitation techniques by following the Kano Model. By following this strategy, we aim to capture accurate and actionable requirements, reducing risks and enhancing project success.

#### **1.1 Brainstorming Technique**

1. Objective

To gather initial ideas, system features, and user requirements from within the project team to support the development of the unified platform for student clubs, including integrations with the financial management and campus space reservation systems.

1. Participants

* All Project Group Members
* Assigned Roles may include:
  + Note-taker
  + Timekeeper
  + Facilitator

1. Moderator/Facilitator

* A selected group member (rotational or assigned) responsible for keeping the session focused and inclusive.

1. Tools Required

* Google docs for idea collection
* Group chat for update on brainstorming idea
* Google docs acts as a shared note-taking document

1. Preparation

* Set a clear session goal based on your current scope (e.g., idea generation for event module)
* Define brainstorming rules:
  + Defer judgment
  + Encourage wild ideas
  + Build on each other’s ideas
  + Stay focused on the topic
* Share basic context before the session (scope, what features are expected, integrations).
* Decide beforehand how to cluster and prioritize ideas (e.g., voting).

1. Sample Agenda of each brainstorming session

| **Time** | **Activity** |
| --- | --- |
| 0–5 min | Introduction: Purpose of the session |
| 5–10 min | Recap project scope and modules |
| 10–30 min | Silent idea generation by each member |
| 30–50 min | Group sharing, discussion, and clustering of ideas |
| 50–60 min | Dot voting or team prioritization |
| 60–70 min | Discussion on feasibility or dependencies |
| 70–75 min | Wrap-up and next steps for documentation |

#### **1.2 Questionnaire Technique**

1. Objective

To collect structured feedback and requirements from key stakeholders (e.g., students, club members, presidents, and administrative staff) regarding the desired functionalities, pain points, and expectations for a unified student club management system that integrates with the university's Financial Management System and Campus Space Reservation database.

1. Target Respondents

* University Students
* Club Members
* Club Presidents and Committee
* Admin Staff

1. Mode of Distribution

* Microsoft Forms
* Share via:
  + Social media platforms (e.g., Instagram)
  + Share among group members’ friends or family members
  + Course WhatsApp groups

1. Tool Required

* Form creation tool (e.g., Microsoft Forms)
* Data collection tools (e.g., built in function of Microsoft Forms)

1. Questionnaire Design Plan

* Estimate the time to complete (e.g., 5-10 minutes)
* Define the types of questions:
  + Demographic info (e.g., Role, Club Affiliation)
  + Closed-ended (Likert scale, Yes/No, Multiple choice)
  + Open-ended (Feedback, suggestions)
* Sections:
  + Basic Usage (e.g., Have you used any current club management system?)
  + Functional Needs (e.g., Rate importance of budgeting, venue booking, event approvals)
  + Integration Expectations (e.g., Should club finances sync with university FMS?)
  + Pain Points (What are your biggest frustrations with current processes?)
  + Wish List (What would you love to see in the system?)
* Timeline

| **Activity** | **Duration** |
| --- | --- |
| Designing questionnaire | 1 day |
| Pilot testing within group | 0.5 day |
| Distribution | 2–3 days |
| Response collection | 3–5 days |
| Analysis and report | 1–2 days |

#### **1.3 Perspective-based Reading**

1. Objective

To gather and refine software requirements by having team members research related articles or case studies on student club management systems and analyze them from assigned stakeholder perspectives (e.g., Admin, Student, Club Member). This helps uncover potential features, workflows, and integration challenges that may otherwise be overlooked.

1. Team Composition and Roles

Each team member is assigned a stakeholder perspective and conducts article-based research accordingly:

| **Member** | **Assigned Role** | **Research Focus** |
| --- | --- | --- |
| Member A | Club Member | Usability, feature needs, announcements |
| Member B | Student (Non-member) | Joining clubs, browsing events, exploring club info, engagement features |
| Member C | Club President | Budget planning, event proposal, venue proposal |
| Member D | Admin | Event approval, financial report access, user role permissions |

1. Task Plan

| **Step** | **Description** |
| --- | --- |
| **1. Topic Assignment** | Assign stakeholder perspectives and related research goals to each member. |
| **2. Article Search** | Each member finds at least 1–2 articles, blogs, case studies, or system documentation relevant to their role. |
| **3. Individual Review** | Read articles and note key features, pain points, system flows, or missing elements. |
| **4. Consolidation Meeting** | Present findings to the group and collectively update the software requirements based on insights. |
| **5. Requirements Refinement** | Document new or modified requirements discovered through research. |

1. Tools Needed

* Google Docs or Notion for requirement documentation
* Group Chat for sharing research articles
* Online meeting tool for discussion (e.g. teams meeting)
* Summary template for findings

1. Timeline

| **Task** | **Duration** |
| --- | --- |
| Role assignment & resource search | 1 day |
| Individual review | 1–2 days |
| Group discussion | 1 day |
| Requirement update | 1 day |

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#### **1.4 Interview**

1. Objective

To gain qualitative insights into the needs, challenges, and expectations of a university student in relation to the proposed Student Club Management System with Budget and Venue Integration.

1. Target Stakeholder:

| **Role** | **Description** |
| --- | --- |
| Student | A currently enrolled university student who is a member of one or more student clubs. The student represents the primary end-user of the system. |

1. Interview Type:

* **Format**: Semi-structured (a mix of open-ended and specific questions)
* **Mode**: In-person / Online (depending on availability)
* **Duration**: 20–30 minutes
* **Tools**: Notebook or voice recorder (with permission), Google Docs/Word for notes

1. Interview Objectives:

* Understand how students currently interact with clubs and events
* Identify pain points in communication, event registration, and budget/venue management
* Determine desirable features and expectations from a digital management system
* Capture any innovative ideas or "delighter" features from the student perspective

1. Core Interview Questions

| **Category** | **Sample Questions** |
| --- | --- |
| Basic Features | What features would you expect any club management system to have? |
| Event Management | How do you feel about having online event creation? What if it’s missing? |
| Venue Booking | How important is real-time venue booking? Would it be a loss if unavailable? |
| Budget Management | Would budget alerts be useful to you? |
| Notifications & Deadlines | How do you feel about automated event reminders and approval notifications? |
| Advanced/Delighter Features | What if the system recommended optimal event times or budget plans? |
| Feedback & Evaluation | Would event reviews from members be useful? |
| Underrated Features | Is there a useful feature you think is often overlooked in club platforms? |

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### **2. Expected outcome for Requirements Elicitation Plan using Kano Model**

#### **2.1 Dissatisfiers (Basic Needs)**

These are essential features that users expect. If these features are absent or poorly implemented, users will be dissatisfied, but their presence doesn't particularly enhance satisfaction.

| **Feature** | **Description** |
| --- | --- |
| **User Authentication** | Basic login/signup functionality for all user roles (student, committee, president, admin). |
| **Membership Management** | Registration, role-based access, and tracking of student club memberships. |
| **Event Creation** | Interface to create and manage club events (title, date, venue, etc.). |
| **Budget Management** | Ability to view current club budgets, submitted proposals, and expenses. Integration with the university's Financial Management System (FMS). |
| **Venue Reservation Integration** | Core integration with the Campus Space Reservation System for booking venues. |
| **Approval Workflows** | Approval chains for club registration, event creation, budget requests, and committee roles. |
| **Report Generation** | Capability to generate downloadable reports (e.g., budget summary, club rosters, event logs). |
| **Conflict Detection** | Prevent venue double-booking through schedule conflict checks. |
| **Club Announcements** | Feature to allow club officers to send official announcements to members. |

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#### **2.2 Satisfiers (Performance Needs)**

These are features that directly improve user satisfaction. The more these features are improved, the better the user experience.

| **Feature** | **Description** |
| --- | --- |
| **Real-time Venue Availability** | Users can browse and book available venues in real-time. |
| **Budget Submission and Approval System** | Clubs can submit detailed budget proposals and track status (approved, pending, rejected). |
| **Expense Tracking & Monitoring** | Real-time categorization and visualization of club expenses. |
| **Membership Renewal** | Online membership renewal process for returning club members. |
| **Communication Tools** | Built-in tools for internal messaging, event reminders, and club updates. |
| **Role Management** | Presidents/admins can assign specific roles (e.g., committee, treasurer) with corresponding permissions. |
| **Calendar Integration** | Ability to sync club events with Google Calendar or university schedules. |
| **Notification System** | In-system alerts for deadlines, approvals, upcoming events, etc. |
| **Analytics Dashboard** | Visual insights into club activities, member engagement, and financial health. |

#### **2.3 Delighters (Excitement Needs)**

These are unexpected or "wow" features that provide extra satisfaction. Their absence doesn’t cause dissatisfaction, but their inclusion significantly enhances the user experience.

| **Feature** | **Description** |
| --- | --- |
| **AI-Powered Event Suggestions** | AI recommends venues, times, or budget allocations based on historical data and event type. |
| **Automated Budget Optimization** | Suggests cost-saving strategies and optimal fund distribution. |
| **Real-Time Budget Alerts** | Immediate notifications when spending approaches limits or inconsistencies arise. |
| **Peer Reviews of Events** | Members can rate and review past events to inform future planning. |
| **Advanced Reporting Tools** | Interactive dashboards with filters and data visualizations (bar charts, pie charts, trends). |
| **Automatic Event Promotion** | Integration with university communication channels to promote events automatically. |
| **Mobile App** | Companion app for on-the-go access to RSVPs, booking, announcements, and approvals. |
| **Dynamic Club Growth Tools** | System recommends engagement strategies based on analytics (e.g., low participation flags). |
| **Academic Schedule Integration** | Prevent scheduling conflicts by syncing club events with academic calendars. |

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