Revisions

| Version | Primary Author(s) | Description of Version | Date Completed |
| --- | --- | --- | --- |
| 1.0 | Hesham | Initial file created. Draft techniques | 22/4/2025 |
| 1.1 | Nickleirsch | Explained each technique. Added example questions | 22/4/2025 |
| 1.2 | Hesham | Added proper elicitation description format for Interviews | 23/4/2025 |
| 1.3 | Hesham | Added Plan | 05/05/2025 |
| 1.4 | Hesham | Potential Requirements | 06/05/2025 |
| 1.5 | Hesham | Brainstorming format achieved | 06/05/2025 |
| 1.6 | Nickleirsch | Reformatting brainstorming plan, Added preparation | 06/05/2024 |
| 1.7 | Nickleirsch | Added brainstorming goals and example questions | 06/05/2025 |
| 1.8 | Hesham | Added Channels for observation and interview specifications | 08/05/2025 |

**Potential Requirements:**

Technique: **Brainstorming**

A close-up of a text

AI-generated content may be incorrect.

|  |  |
| --- | --- |
| Technique | Brainstorming |
| Subject | The specific requirements engineering context |
| Stakeholder(s) | Students |
| Mode | Virtual (Online) |
| Moderator | Hesham Nader |
| Minute-taker | Nickleirsch |

Goal:

1. Understand student pain points with current systems.
2. Discover preferred communication methods.
3. Identify useful features they expect.
4. Learn how they currently manage academic info, alerts, and deadlines.
5. Validate assumptions made prior to the session

Brainstorming Rules:

Topics to Explore During Brainstorming:

1. Current challenges
2. Preferred communication channels
3. Expectations of features
4. Could add more like customisation?

To help with brainstorming:

1. Voting tools to know the priority of each feature
2. Brief profile of each student participating

Example Questions

1. What’s one time you missed an important university update?
2. If you could design your perfect student portal, what 3 things would it do?
3. Which notifications do you actually pay attention to?
4. What info do you wish your parents could easily access (or not)?

Questions: Answer

1. Where should I write the ideas?: Kindly append any brainstorming ideas below in the Brainstorm section.

Initial Brainstorming:

1. Idea
2. Idea
3. Idea

Categorized Brainstorming:

* Usable:
  + Idea
* Not-decided:
  + Idea
* Unusable:
  + Idea

Techniques:

2 Main categories: potential requirements and requirements after elicitation execution.

For potential:

Brainstorming + Mind-mapping

Execution:

Interview, Observation, Questionnaire

1. Interviews

|  |  |
| --- | --- |
| Purpose | To gain detailed insight into user expectations, current challenges, and workflows. |
| Participants | Lecturers, administrators, and some senior students. |
| Approach | One-on-one or small group discussions. Questions will be open-ended to allow users to express needs freely. |
| Example Questions | "What tasks do you frequently perform using the campus system?"  "What problems do you face when communicating with students/parents?" |

|  |  |
| --- | --- |
| Preparation | * Create a structured interview schedule and timeline with key topics to be discussed. * Utilize appropriate meeting spaces for face-to-face interviews. * Prepare recording equipment and note-taking materials * Identify role-specific question sets according to stakeholder group. |
| Execution | * Interview Structure:  1. Introduction: Explain the project purpose and take note of interviewee’s reactions 2. Main Discussion: Begin with general questions, allow for natural conversation flow. 3. Closing: Summary of key points, ask for additional input.  * Document responses in real-time * Record sessions |
| Follow-Up | * Transcribe interview recordings * Review and organize findings * Identify key patterns and themes * Document initial findings |
| Critical Success Factors | * Clear communication of project goals and view * Well-prepared interview questions * Proper documentation * Participant engagement * Structured analysis approach |
| Benefits for Requirements Engineering | * Detailed understanding of user needs * First-hand exposure to early challenges * Identification of unstated requirements |
| Effort Estimation | 2 students  1 lecturer  1 parent  Justification: The system’s main stakeholder is the student.. |

2. Observation

|  |  |
| --- | --- |
| Purpose | To understand how users interact with the current systems and communication methods. |
| Participants | Mainly students and administrative staff. |
| Approach | Observe users during real activities such as checking grades, handling billing issues, or sending updates. |
| Focus | Identify pain points, workarounds, and areas for improvement that users might not mention directly. |
| Channels | Student WhatsApp’s groups |

3. Questionnaire

|  |  |
| --- | --- |
| Purpose | To reach a wider group of users and quantify their preferences. |
| Participants | Students and parents. |
| Approach | Short online survey with both Likert-scale and Kano-style questions. |
| Example Kano-oriented Questions for a Feature (SMS alerts for low attendance) | Functional: "How would you feel if the system sends SMS alerts for low attendance?"  Dysfunctional: "How would you feel if the system does NOT send SMS alerts for low attendance?"  Response options: I like it / I expect it / I am neutral / I can tolerate it / I dislike it |