

# Research Proposal 40%

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## Rationale

This assignment is the first of 2 stages in CS205 where you'll be completing all design phases for your project before proceeding into full production. This assessment is aimed to strengthen your research skills and equip you with the knowledge in delivering a quality research application. By the end of the course, students will be able to propose and deliver a Research & Development project of great academic and technological significance.

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## Guidelines

### Literature Review

This proposed research output may include (but is not limited to) the following:

- Relevant conference papers or journal articles should be summarized in this section
- A study of the existing system can also be conducted highlighting the following points
- What is the existing system (if any) in place to meet the user requirements?
- What are the problems being faced by the users of the existing system?
- What are the features desirable by the existing users in an improved or new system?
- Proper citations in APA Version 7 format should be provided.

### Research Question

A research question is usually the first step in any research project. Basically, it is the primary interrogation point of your research and it sets the pace for your work. It resides at the core of systematic investigation and it helps you to clearly define a path for the research process.

### Product concept (including rationale)

This is a simple summary of the product concept and a brief overview of the features provided by the product you are proposing. Answer questions about the product like:

- Product rationale
- Proposed features
- Programming framework/technology selected

### Production plan

Depending on the requirements, the production plan can include (but not limited to) the following points:

- Project duration and chosen project methodology (Agile, Waterfall, etc.)
- Project phases and work breakdown structure (WBS)
- Gantt chart (including milestones/project deliverables, dependencies etc)/Product Backlog Items, burn-up/down chart in case of Agile methodology.
- Proposed roles (for example, if Scrum has been adopted, then you can talk about the roles of product owner, Scrum master, and developers).
- Project management tools (scheduling, version control, etc.)
- Three user personas for the proposed system.
- Use case diagrams and UML sequence diagrams.
- Mock-ups and digital Lo-Fi/Mid-Fi wireframes of the proposed UI (responsive webpages).
- Usability Testing of the Lo-Fi wireframes with at least five users.

### Presentation

Present your team research proposal covering the topics in the proposal and explain the rationale behind the project, what is the proposed new or improved system with presentation slides. Presentations should be no longer than 15 minutes.