

*School of Electronic Engineering and Computer Science, Queen Mary University of
London*

FINAL YEAR PROJECT SPECIFICATION

Session 2018-19

*This project specification must be undertaken in consultation with your supervisor.
The feasibility of the project should have been assessed and the project aims should
be clearly defined.*

*Submission of this document implies that you have discussed the specification with
your supervisor.*

Project Title: Exam Companion

Supervisor: Professor Yang Hao

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PROJECT AIMS:

State the design, development or research challenge that the project aims to solve.

The Project aims to research the revision methods of University students for their Examinations and the effectiveness of these methods as well as the effectiveness of known revision techniques such as the Pomodoro technique. The Project aims to use existing studies on revision methods such as the Pomodoro technique, flash cards, charts and other revision tools students use, to find the most effective methods of revision for a University student.

The Project further aims to produce a mobile phone application that will use the research gained to aid the user in studying for their examinations. This applications features will depend entirely on the research results, as features implemented will be those that are proven to be the most effective in helping a student study for Exams.

METHODOLOGY:

Describe the various steps that you intend to follow in order for you to achieve your project aims.

1. Conduct surveys and interviews of University students to find out their most used revision methods for Examinations.
2. Research other possible revision techniques online that are not already mentioned by students in surveys and interviews conducted.
3. Analyse the effectiveness of each revision technique using multiple existing studies and compare the effectiveness of the various revision methods used by students and those not used.
4. Design and produce a software application that enables or makes it easier for its user to revise by techniques proven to be most effective by the research conducted. In doing so improve the exam grades of students using the application.

PROJECT MILESTONES

Indicate what measurable/tangible components you will produce as part of this project. This may take the form of deliverable document(s) or developmental milestones such as a working piece of software/hardware.

- **Document:** Results from interviews and surveys listing the types of revision methods and tools used by students and the frequency with which they are used.
- **Document:** A list of other known revision methods not mentioned by students, with an explanation of each technique.
- **Document:** An in-depth analysis of all revision methods accumulated from steps one and two. Each methods effectiveness will be researched using at least 2 existing studies and the effectiveness of the various methods will be compared. A conclusion will outline the most effective methods of revision.
- **Document:** Formal documentation of domain model, domain analysis and application requirements.
- **Document:** Use case, sequence and Class diagrams of application to be built.
- **Software:** Exam Companion application code
- **Document:** Documentation covering application testing completed with critical analysis of results, as well as potential improvements required.
- **Document:** References list.

REQUIRED KNOWLEDGE/ SKILLS/TOOLS/RESOURCES:

Indicate as far as possible the skills that are required for you to undertake this project. Also include any software, hardware or other tools or resources that you believe you will need.

Skills:

- Research and analysis skills.
- Interview skills: technical skills to write interviews and social skills to conduct them.
- Programming knowledge of Java as applies to the android ecosystem.
- Harvard style referencing skills.

Resources:

- Visual Paradigm: Software tool for producing UML diagrams such as class diagrams.
- Android Studio: IDE for developing android applications.
- Microsoft Word: Software tool for typing all formal documentation and referencing.
- Android mobile phone: For testing application during development and once completed.

TIMEPLAN

This can be a GANTT chart submitted with this document or a list of tasks, milestones and deliverables with timings

<i>Name</i>	<i>Begin date</i>	<i>Completion date</i>
1. References list	31/10/18	21/02/19
2. Results of student research	31/10/18	06/11/18
3. Results on online research	07/11/18	07/11/18
4. Analysis of results from steps 2 and 3	08/11/18	14/11/18
5. Domain model, domain analysis and requirements and analysis write up	15/11/18	23/11/18
6. Use case and class diagram	26/11/18	30/11/18
7. Application code development	03/12/18	31/01/19
8. Code testing and analysis	01/02/19	21/02/19

