**IMAT3451 Project Contract Template**

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**Project Title “**Securing Home Networks**” / “**Secure Home**”**

**Project Proposer /**

**Supervisor** Helge Janicke, Professor in Computer Science, Head of School of Computer Science and Informatics, Head of the Cyber Technology Institute (CTI), 01162577617, heljanic@dmu.ac.uk

**Introduction**

The aim of this project is to develop a mobile app that ordinary and non-technical home users can use to help them set up and configure their home networks. Making sure that all security measures have been taken under consideration.

**Project Background**

Nowadays, with the increasing amount of devices that connect to your home network puts your personal data at risk. Many home networks are improperly set up due to the lack of information and know-how on how to secure their home network, making them vulnerable to attacks from hackers. This is why it is very important to assist and guide home owners in securing their network.

As many home internet consumers, especially those who do not have an IT background, would generally leave all the default settings in place including the default password of their WIFI. This is why it is important to make sure they understand every security option made available to them.

**Aim/Objectives/Deliverables**

This is the heart of the Contract, and will require discussion with your supervisor and possibly several iterations to get it right. It is against the objectives and proposed deliverables that the final product will be assessed. So it is important to ensure that all aspects of the assessment criteria (see Blackboard) are included in the list of objectives/deliverables.

**Aims**: The aim of this project is to develop a user friendly android application to help non-technically minded home users set up securely their home network. Therefore making sure that no device connected to the network is at risk.

**Objectives**: a list of specific, measurable objectives, each of which is likely to result in a deliverable. They specify all the work tasks to be undertaken to meet the stated aim. They will vary from project to project, as every project is different, but some examples are provided below.

All projects will need to review and report on the literature in a chosen area.

Software Development projects might include such general objectives as:

* To investigate system requirements and produce a Requirements Specification.
* To research and write a report on good practice in HCI design.
* To design an interface using the findings from the HCI report.
* To design and execute a suitable test plan.

Or they might be more specific, e.g.:

* To review and report on how mathematical simulation techniques could be applied to a

traffic simulator.

Research projects might include such objectives as:

* To conduct a literature search into e-learning, resulting in a literature review of the topic and a definition for the purposes of the project.
* To investigate and report on research approaches and methods.
* To select and justify an appropriate research design for the project.
* To describe any research hypotheses for the project.
* To undertake empirical work in accordance with the research design.

**Deliverables:** a list of your Project’s deliverables with some general description.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Research Projects** | **Development Projects** | **Hybrid Projects** |
| **First Submission** (first deliverable)  Week 7 | * Project contract * Ethics form * Project Plan (e.g., Gantt Chart) * Global Checklist * Scoping Review (mapping out the key concepts and work in the field) * Research Questions | * Project contract * Ethics form * Project Plan (e.g., Gantt Chart) * Global Checklist * Literature Review * Requirements * BCS checklist (if pertinent) | * Project contract * Ethics form * Project Plan (e.g., Gantt Chart) * Global Checklist * Literature Review * Requirements * BCS checklist (if pertinent) |
| **Final Submission** (final deliverable)  These are some examples: each project will need a complete set of objectives/deliverables  Week 29 | * Full literature Review * Updated (if needed) Research Questions * Report on the field study * Findings and analysis * Conclusions etc. * Reference list * Appendices (surveys, interviews evidence etc) * Maximum word count (main body): 15.000 | * Use Case Diagrams/Use Case Descriptions/Class diagrams/ER model/State transition diagrams * Story boards/Interface Designs * Design Documentation * Test Plan * Prototype * Final report, including critical evaluation * Software * Appendices (e.g. further design documentation, test logs) * Maximum word count (main body): 15.000 | * Use Case Diagrams/Use Case Descriptions/Class diagrams/ER model/State transition diagrams * Story boards/Interface Designs * Design Documentation * Test Plan * Prototype * Final report, including critical evaluation * Software * Appendices (e.g. further design documentation, test logs, surveys, interviews evidence) * Maximum word count (main body): 15.000 |
| **Viva examination:** attended by the supervisor and the 2nd marker  Weeks 30-32 | * Oral examination (presentation of your work)   During week 28 supervisors and students will need to start communication for setting up the Viva | * Oral examination (demo of your work)   During week 28 supervisors and students will need to start communication for setting up the Viva | * Oral examination (presentation and demo of your work)   During week 28 supervisors and students will need to start communication for setting up the Viva |

**Resources and Constraints**

A list of any specific resources that the project requires; for example, hardware and software; access to people or organisations.

A list of any known constraints, for example availability of certain resources.

**Sources of Information**

A list of sources you intend to use. These could include:

* Specific books/journals if you already know of them;
* Library/Internet;
* Organisations or individuals you intend to contact.

**Risk Analysis**

What could endanger your project, what will you do if it happens

**Schedule of Activities**

Having defined the tasks to be undertaken in the list of objectives, you need to prepare a Project Plan to show how you intend to carry them out: You may find it helpful to draw up a critical path diagram before drawing a Gantt chart.

**Student\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Proposer \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Supervisor\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Keep the signed copy somewhere safe: include it with your initial submission. Your supervisor will require a copy as well.