Project (CN6000) Initial Proposal Form

Programme: Year:

Student Number:

Proposed Title:

Proposed Aim:
(Please provide a brief summary of what you hope to achieve by the end of your project. Your proposed aim should clearly identify your topic of interest.)

Proposed Objectives:
By the end of this project, I will be able:

1. To research…
2. To research…
3. To conduct (survey/interviews/focus groups…etc)..
4. To analyse using (quantitative / qualitative / combinations of both)…
5. To implement…
6. To evaluation the outcome…
7. To reflect on the results and findings…

(A minimum of four / maximum 8 objectives are needed, please refer to lesson 2 for the correct way of writing objectives).

Draft of Rationale:
(Please provide a detailed explanation of why you think this project needs to be undertaken- Maximum 200 words.)

Facilities required: (Please provide a detailed list of what you will need to do implement your solution – Maximum 200 words)

Supervisor:

<< Check the examples shown below>>

Sample of Proposals

Project (CN6000) Final Proposal Form

Programme: BSc Computing for Business Year: 2018

Student Number: 0123456

Title: Is Linux ready for the Desktop?

Aim: To assess the viability of Linux as a desktop operating system.

Objectives:

1. To research current literature on the viability of Linux as a desktop operating system.
2. To identify the key differences between desktop and server-based operating systems and to establish a definition of the term desktop operating system.
3. To identify the factors critical to the success of a desktop operating system.
4. To investigate the various techniques used to conduct usability tests.
5. To devise a set of experiments which will enable i) an evaluation of Linux against the criteria in 2., ii) an evaluation of its usability and iii) a comparison of it with other desktop operating systems.
6. To conduct the experiments identified in 4. and to evaluate their results.
7. To draw conclusions about the viability of desktop Linux based on the evaluations in 5.

Rationale:

During the current economic climate, companies need to find ways of trimming their IT budgets. Open source software such as Linux provides one possible means of doing so. The purpose of this project is to produce an objective assessment so that IT managers can assess the feasibility of replacing their existing desktop OSes with Linux.

Facilities required:	Ubuntu Linux, Windows 10, Apple MacOS A PC with a removable hard disk and a MacBook
Supervisor:	Alan Turing

(b)

Project (CN6000) Final Proposal Form

Programme: BSc Computing for Business Year: 2018

Student Number: 0123456

Title: A Stock Management System for Barnet Hair Salons

Aim: To design and implement a web-based stock management system for a chain of local hairdressers.

Objectives:

1. To research Stock Management Systems for SMEs and to determine the need for a web based stock management system.

2. To conduct interviews with employees and manager and collect requirements for the development of the web based stock management system for Barnet Hair Salons.

3. To apply thematic analysis to identify HCI and usability issues which might impact upon the design of a web based stock management system for Barnet Hair Salons.

4. To design and implement a database system for stock management at Barnet Hair Salons.

5. To design and implement a web based front end for the database system in 4.

6. To evaluate the tools, techniques and methods used to design and implement the web based stock management system for Barnet Hair Salons.

Rationale:

Barnet Hair Salons is an expanding business which currently lacks an effective IT system. My proposed system will help the employees manage their business more effectively. The majority of employees at Barnet Hair Salons have very limited IT experience hence the emphasis placed on usability by my project proposal.

Facilities required: Microsoft SQL Server or MySQL, Microsoft IIS or Apache web server
Fireworks and Dreamweaver

Supervisor: Edgar Codd

(c)

Project (CN6000) Final Proposal Form

Programme: BSc Computer Science Year: 2018

Student Number: 0123456

Title: Assessing the vulnerability of a School's Network Infrastructure

Aim: To assess the vulnerability of a large secondary school's computer network and to recommend measures for improved security.

Objectives:

1. To research the existing network infrastructure at the school and to identify the security measures currently in place.
2. To identify a number of tools which could be used to carry out a vulnerability assessment at the school.
3. To a survey of teachers regarding system vulnerabilities linked to the network at the school.
4. To analyze the findings and recommend measures to be implemented for improved security at the school.
5. To evaluate the tools used to assess the vulnerability of the network at the school.
6. To reflect on these risks and implement a plan to minimise these vulnerabilities.

Rationale:

I am currently employed by a large secondary school as a network administrator. The security of the school's computer network has been compromised on a number of occasions in the last two years. This project will help me to identify the causes of these security breaches and the measures that could be taken to prevent them from reoccurring and hence be of benefit to my employer.

Facilities required: Nmap port scanner
Snort intrusion detection system
NetStumbler wireless network scanner
Nessus vulnerability scanner

Supervisor: Leslie Valiant

Project (CN6000) Final Proposal Form

Programme: BSc Computer Science Year: 2018

Student Number: 0123456

Title: Objects versus Agents: Are Agents a Silver Bullet for Software Engineers?

Aim: To investigate the functionality offered by software agents in comparison to objects.

Objectives:

1. To define the terms object and agent in the context of software engineering.
2. To research current literature comparing objects and agents.
3. To distinguish between agent oriented and object oriented software engineering.
4. To conduct a survey of experts in the field of software engineering in relation to their use of agents vs sliver bullet.
5. To analyze the findings of the survey using MS Excel regarding current market use.
6. To show how agents can be used as a replacement for objects by i) the specification of and ii) the implementation of a prototype agent system.
7. To run a test that demonstrate the different features of both objects and agents for a given example.
8. To draw conclusions showing the circumstances in which agents might be useful replacements for objects and when objects might be better suited.

Rationale:

The advantages of object-oriented software are well known and understood. The advantages of agent-oriented software are much less understood. The purpose of my project is to illustrate the benefits of agent-oriented software so that software developers and IT managers can make informed choices about their development environments.

Facilities required: Java
Eclipse or NetBeans

Supervisor: Roberta Milner

Project (CN6000) Final Proposal Form

Programme: BSc Computer Science Year: 2018

Student Number: 0123456

Title: Improving Service Delivery in the Cloud

Aim: To develop an architecture that will minimize the impact of network performance unpredictability in cloud computing environments

Objectives:

1. To research the different types of cloud computing environments.
2. To identify the network performance issues associated with the various cloud computing environments.
3. To investigate the methods, tools and techniques used to develop cloud computing environments.
4. To conduct a focus group of managers in field of cloud computing delivery and improvements.
5. To apply Thematic Analysis to the findings to identify key industry practices.
6. To design and implement a cloud computing architecture that is resilient when network performance is degraded.
7. To test the cloud computing architecture implemented in 4. using a range of network performance levels scenarios.
8. To analyse and evaluate the results of the tests in 5. and to draw conclusions about the effectiveness of the proposed cloud computing architecture.

Rationale:

Many organizations are reluctant to move their IT systems to the Cloud because of the unpredictable nature of Internet connectivity. This project seeks to develop a resilient cloud computing architecture which can continue to function at an acceptable level in situations where network performance is significantly degraded. A resilient architecture would enable cloud service providers to improve the quality of service provided to their customers.

Facilities required: Ubuntu Linux, OpenStack cloud software and Oracle VirtualBox

Supervisor: Charlene Hoare