Birkbeck
UNIVERSITY OF LONDON

Work-related Project Introduction

Foundation Degree in IT

Foundation Degree in Web Technologies

Overview

- You are required to source, plan, design, and build an *original* and *significant* piece of software for a *real-world client* that satisfies a clear organizational need.
- Your project should bring together many of the different strands of learning you have undertaken on your degree.
- It will serve as a bridge between the academic context of your current study, and the practical, professional world of work in the IT and/or web-related sectors.

Overview

Module Coordinator	Gordon McIntyre
Level	5
Credits	30
Teaching	Independent learning
Status	Compulsory
Duration	2 Terms (autumn, spring)
Hours	You should expect to spend around 100 hours on your project
Supervisors	Gordon McIntyre, Ian Hollender, TBC

The Client

- Your client could be a business; a charity; a school; a church, mosque or temple; or any other small-scale organization.
- The business or organisation could be your current employer. It could also be an organisation with a connection to a family member, friend or other associate.
- You cannot be your own client.
- The client cannot be fictitious.

Finding a Client

- Ask at work.
- Ask people you know.
- Approach organisations and ask them (e.g. charities, schools, local firms).
- Do a critique of an existing system for somebody and explain how you could improve it.
- Be proactive!
- It is your responsibility to find a client.

College Clients

- The Department is routinely approached by organisations and individuals asking for students to carry out projects.
- The exact number of these projects varies year on year.
- In order that the DCSIS protects its reputation, these projects will only be allocated to those students who have a proven track record in terms of reliability, punctuality and academic achievement (e.g. regular attendance, routinely scoring 60%+ in all modules, positive and proactive attitude, etc.).

Project Deliverables

- The project deliverable could be:
  - A web application (e.g. an e-commerce site)
  - A mobile application
  - A desktop business application (database, spreadsheet, etc.)
  - A computer game
  - A WordPress plugin
  - A learning technology artefact
  - Other?
- It must be original and significant, and satisfy a clear organisational need.
- Note that a project that consists solely of markup and (HTML) and styling (CSS) only does not really present sufficient challenge. The project must ideally contain some advanced element. This would generally be the inclusion of programming in your work. But, it could also be the development/customization of themes and/or plug-ins for a content management system, such as WordPress or Drupal.

Project Scope

- The project scope must be realistic:
  - Not too large that it cannot reasonably be completed within the allotted timeframe.
  - Not too small that it is insignificant.
- You have two terms to complete.
- In those two terms, you should allocate a *minimum* of 100 hours of your time for project work.

Collaborative Projects

- Students may work in pairs or teams on a project where the scope of the project demands it.
- The work must be divided *equitably* between the project participants.
- Collaborative projects must be agreed with your Programme Director prior to commencement.
- If you do opt for a collaborative project, make sure you pair with somebody you trust.

Implementation

- It is up to you what technologies you use to complete the implementation:
  - HTML 5, CSS, JavaScript
  - HTML 5, CSS, PHP, MySQL
  - jQuery Mobile, jQuery
  - Microsoft Access or Excel
- Bear in mind, that your project should be requirements driven, rather than technology driven. That is, you should only decide the technology you are going to use after you have worked out your requirements.

Implementation

- If your project is a website, and it does not have any programmatic element, then you must use a CMS like WordPress, Joomla or Drupal to produce the site.
- The CMS site you produce must contain themes and/or plugins that you have developed or customized. It cannot be based solely on already existing themes or plug-ins.
- Web applications and CMS sites should be published on the student or client’s own web space.
- DCSIS will provide web space for WordPress sites on request.

Assessed Components

- The project will be assessed in three parts:

Component	Word Count	% of Total Grade
Learning Agreement (Proposal and Plan)	1500	20%
Project Portfolio (Software and Report)	3000	60%
Reflective Accounts	1500	20%

Learning Agreement – Project Proposal

- The Project Proposal is an initial outline of your project which will include the following:
  - Description of your client and his/her organization.
  - Description the business/organisational problem the project will address.
  - Overview of your proposed solution.
  - A set of functional and non-functional requirements for your proposed solution.
  - *Email corroboration* that you have discussed the project with your client (e.g. copies of emails between you and the client, showing that the client *is aware of* and *accepts* your proposal).
- You may add or remove sections based on the specifics of your project.

Learning Agreement – Project Plan

- The Project Plan will consist of the following:
  - An overview of how you intend to complete the project, modelling techniques, programming or markup languages, approaches to testing, etc.
  - A detailed breakdown of the project into discrete stages and milestones, including a final completion date (This can be in GANTT chart or tabular format).
  - *Email corroboration* that you have discussed the Project Plan with your client (e.g. copies of emails between you and the client, showing that the client is *aware of* and *accepts your plan*).

The Project Portfolio - Report

- The Project Report should detail the design, implementation and testing of the software you have produced for the project. It should include the following sections.
  - **Introduction** – Provides background to the project: the client, the business or organizational need you are addressing. Also provides a very brief overview of the solution you have produced.
  - **Design** – Details all design activities you have undertaken to complete the project. Will include design diagrams (e.g. entity relationship diagrams, use cases, activity diagrams, UI diagrams, mockups, flowcharts, etc.). Will also include textual commentary where necessary.

The Project Portfolio – Report

- **Implementation** – Documents the process whereby the software was implemented. Details any problems faced. Also details any deviations from the original proposal or design, and provides a rationale for those deviations.
- **Testing** – Documents the testing process, giving details of tests carried out and results achieved. Also details any unresolved issues with the software. Analyses the usability and accessibility of the completed product.
- **Conclusion** – Provides an evaluation of the success of the project. Details the extent to which the project meets the initial requirements. Includes a consideration of client satisfaction. Gives recommendations for further development or enhancement.

The Project Portfolio – Report

  - **Appendices** – Includes any data (e.g. from testing) that you produced in the course of your project. May also include any diagrams that were too large to be included in the main report body.
  - **References** – Provides a comprehensive set of references (in Harvard format) for ALL reading material you have used in the completion of your project. Also provides an indication of any code sources you have used, or existing software artefacts you have drawn inspiration from.
- You may add or remove sections based on the specific of your project.

The Project Portfolio – Software

- The Project Software will consist of a working version of whatever artefact you have undertaken to build for your client.
- The software needs to be fully implemented to beta version standards.
- It should conform as closely as possible to the description of the software as set out in the Project Proposal, and to the design set out in the Project Report.
- Desktop applications should be submitted in a format that can be opened by the supervisor (e.g. .exe, .xlsx, .accdb, etc.).
- For web applications, you should provide a working URL.
- Other applications (e.g. web apps) should be provided with clear instructions on how to run.

Reflexive Account

- The reflexive account requires you to step back from your work and evaluate your performance in all aspects of your project management and completion.
- In writing the account, you may consider the following questions:
  - How successful were you in managing a project that involves a real-world client?
  - How did your project management skills measure up to the task of completing the project? Which skills will you need to further develop?
  - How did your practical skills measure up to the task of completing the project?
  - What are the most important things that you have learned about yourself in the course of the completion of the project?
  - How might completion of the project help you in terms of current or future employment?

Grading

- Your Project Software will be graded on the following criteria:
  - It satisfies the requirements set out in the Project Proposal.
  - It conforms to the design detailed in the Project Report.
  - All coding and/or markup used to complete the project is standards compliant.
  - Coding and/or markup is done optimally so that it is as concise as possible.
  - The product conforms to recognized design standards, is intuitive and is easy-to-use.
  - The product contains no errors or bugs. Works as expected.
  - It has been comprehensively tested.

Grading

- Your written work will be graded on the following criteria:
  - **Completeness** – All the required elements have been completed.
  - **Conciseness** – The work does not fall too far short of, or exceed, the stated word limit.
  - **Correctness** - Any information, argument or analysis included in your work is logical and correct.
  - **Presentation** – The work is readable, and correctly formatted in line with standard report writing conventions. Tables and graphics are labelled and clear. A table of contents and indexing system is used.
  - **Academic English** – Grammar, spelling and punctuation are precise. The work is informed by research. Any external sources have been acknowledged, properly cited and included in the references section.

Schedule

Component	Deadline	Submission
Learning Agreement (Project Proposal and Project Plan) submission deadline	Monday November 13th 2017	Student → Moodle
Learning Agreement (Project Proposal and Project Plan) feedback and mark return	Monday November 27th 2017	Tutor → Moodle
Project (Software and Report) draft submission deadline	Monday April 2nd 2018	Student → tutor (email)
Project (Software and Report) draft feedback	Monday April 23rd 2018	Tutor → student (email)
Project (Software and Report) Submission Deadline	Monday May 7th 2018	Student → Moodle
Reflective Account Submission Deadline	Monday May 21st 2018	Student → Moodle

Late Submissions

- A late deadline of TWO WEEKS after the stated deadline will operate for each project element.
- Elements submitted after the original deadline, but before the late deadline will be capped at 40%.
- Any elements submitted after the late deadline, will be awarded 0%.