

## SOCIO-INFORMATICS / INFORMATION SYSTEMS MANAGEMENT 354 GROUP PROJECT BRIEF

Revision 5.1 (30 August 2018)

### Introduction

This project involves the design and development of a functional and novel information system based on a provided scenario, to be completed in your selected project groups. You are expected to select a relevant software development methodology to aid the management of the project as a whole, as well as to facilitate a number of systems analysis and design activities and the implementation of the system itself.

### Project Breakdown

You will be evaluated in terms of the following deliverables pertinent to each phase of systems analysis and design, HTML mockups, and implementation.

#### Systems Analysis and Design

For this section, you are required to develop a business and system requirements specification document, which will capture and express the requirements gleaned from the case study as well as JAD sessions that your group will participate in. The document will also **incorporate elements of systems design**. You should consult with the recommended literature to identify a suitable flow and format for your document. You are required to make use of **UML diagrams** and other modelling techniques in order to supplement your textual presentation of the various use cases that the proposed system is required to fulfil. It is suggested, but not required, that you follow the template provided by Podeswa in the book *The Business Analyst's Handbook*.

You will also, separately, be expected to submit **HTML mockups of your interface**. These mockups will be assessed separately to ensure that the design of your project is consistent. The deadline for these mockups is separate to your requirements document, but you may wish to work on them alongside each other.

### Systems Implementation

This portion of the project involves the actual development and documentation of the proposed system outlined in your systems analysis and design documentation. You are expected to **produce one functional prototype in JavaScript** (along with React and other suitable libraries) which will function as the information system developed for the client presented in the scenario and JAD sessions. Your application should conform to principles of good programming practice, and should be suitably commented. Your application should be deployed to the World Wide Web and make use of GitHub for both source control and hosting (instructions on this will be provided). **Additional marks** will be awarded to groups who enhance their applications to include extra, appropriate functionality (but note, **NB, failure to complete the basic requirements will result in heavy penalties, even if there are many bells and whistles**).

Further to this, each group will present their implementation to the other groups in the week following the hand-in date. Each group will be given 25 minutes to present their project. The markers will also evaluate the usability and functionality of your implementation during this presentation, and so it is expected that you will perform a live demonstration as the bulk of the actual presentation. You should leave at least 5 minutes of your presentation for questions from your classmates and the markers. Expect that technical questions about your project will be asked of all members.

## Peer Assessment

In addition to group assessment, you will be assessed individually in order to ensure equal allocation of tasks, and that each group member receives a fair grade. To this end, you will complete several peer evaluations during the course of the semester. These peer evaluations are used to gauge your, and your groups, participation in the final project. It is important for you to be aware that your final, individual mark, will be influenced by both your- and your group members- peer assessments. Failure to participate in the project process will guarantee you a low mark.

## Mark Breakdown and Due Dates

Your project will be graded with reference to the following grading scheme and relevant weights.

Analysis & Design	21 September 17:00	125
Introduction / Executive Summary		5
Business Cases / User Stories (etc.)		30
System Cases		20
Non-Functional Requirements		10
UML Diagrams		40
Layout and Formatting		10
Additional Items		10
HTML Mockups	1 October 12:00	25
Implementation	22 October 12:00	250
User Documentation		30
Code Quality and Comments (including PEP8)		30
Presentation (including functioning of implementation)		60
Software Requirements Minimum		90
Software Requirements Extra		40
<b>TOTAL</b>		<b>400</b>

## Documentation Submission Requirements

Your PDF must be submitted to the appropriate link on SUNLearn before the deadline of 17:00 on Friday, 21 September, and two printed and bound copies must be placed in the box outside Room 445 before 17:00 on the same day. You should also include your source and PDF of your documentation in your GitHub repo. Any late submissions of the printed documentation will and will receive zero if they are not handed in before 17:00 on Friday, 21 September. The documentation must include, clearly on its cover, the group's number and the names and student numbers of each member of the group. Remaining formatting is at the discretion of the group. Creativity is encouraged.

## HTML Mockups

HTML and CSS files of your mockups should be placed in your GitHub repo ahead of the deadline and the final commit that is to be considered should be noted on the form on SUNLearn before the deadline. The markers will evaluate your HTML files directly from GitHub.

## Implementation Submission Requirements

Your final implementation should be committed to your GitHub repo ahead of the deadline and deployed on GitHub (instructions will be provided closer to the time). Submissions will receive zero if it is not committed by 12:00 on 22 October.

## Case Study

The vast majority of information required in this project will be presented in a JAD session during a practical period, followed by another in a lecture period, if required. The case as it appears below is only a rough starting point for each group. Several groups will sit in on the same JAD session, so that groups can benefit from each other's questions.



A small local bank, The Bank of the Sun, has realised that its personal online banking offering is no longer appropriate for banking in 2018. To this end, the bank has contracted your group to develop a new online banking system to work with the banks existing bank end services. In order to ensure that the bank is happy with your design and the functionality of it, they have asked you to develop a requirements specification for it, followed by some design mockups and then a functioning prototype. Your prototype will interact with a functioning, but demo copy of the banks production services. You will be expected to have a fully functional prototype, but not to have a hardened system that is designed for production use. In order to elicit the banks requirements, you will be provided with a data model of the API as well as documentation on each API endpoint. In your JAD session, you will have access to three actors from the bank. The bank's CEO, CIO and a member from the backend design team. During the implementation phase of the project, you will be given access to a working API, as well as the source code used by the API if you wish to run a local copy.