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School of Computing, Engineering and Mathematics

Assessment Brief Form

Module Title:	Integrated Group Project in Computing
Module Code:	CI236
Author(s)/Marker(s) of Assignment	Nour Ali, Jim Burton, Stelios Kapetanakis

Assignment No:	1
Assignment Title:	Requirements and Design
Assignment weighting:	30%
Module Learning Outcome/s Covered: (Refer to module syllabus)	<p>LO1 Plan and manage a group based software development project.</p> <p>LO2. Collaborate and communicate professionally in a software development team.</p> <p>LO3. Integrate and apply different techniques, methods and tools at different stages of the software life cycle.</p>

Assignment Brief and Assessment Criteria:

See Overview, and Part 1 attached

Assessment Criteria

INDICATIVE MARKING CRITERIA AND CONTRIBUTING FACTORS	WEIGHTING
Planning Plan showing estimations for tasks and allocating tasks to group members. Group Minutes / Github activity	5%
Requirements Requirements document Including stakeholders, project scope, and, functional requirements. <i>Each individual will be marked for their non-functional requirement specification.</i>	10%
Use Case Model List of actors Use case diagram with appropriate includes and extends.	15%
Use case descriptions, user scenarios and screens <i>Each individual has to produce a system use case description, user scenario and screen design. In this part individuals get their own</i>	10%

mark.

Class Diagram

15%

Conceptual Class diagram supporting requirements, should include classes, inheritance, associations, aggregations, attributes, etc.

Entity Relationship Diagram (ERD) and Database

15%

Correct and complete ERD supporting requirements

Documentation – Entity descriptions, attributes, primary and foreign keys

Building first version of Database

Design

15%

A high level architecture diagram

Description of the architecture and components, and connections

Model View Controller (MVC) design for your application

Rationale and explanation of advantages/disadvantages of MVC for your application

Overall

5%

Well presented documentation, contents list, page numbering.

Coherent set of documentation.

Individual Report

10%

Individual Report that includes answers to the questions on section

Individual Report (see below). Individual logs, group-tutor forms, and github activity

These weightings are approximate. Particularly good work in one section may compensate for less satisfactory work in another.

Date of issue:	Tuesday 10 th February 2015
Deadline for submission:	By 3 am 23 rd of March 2015
Method of submission:	Esubmission on studentcentral. The database should be available on github.
Date feedback will be provided	Electronic Feedback on studentcentral and by 5 th of May.

- a. A copy of your coursework submission may be made as part of the University of Brighton's and School of Computing, Engineering & Mathematics procedures which aim to monitor and improve quality of teaching. If a copy is made, it will be kept only for this purpose and will be destroyed once this purpose has been fulfilled. You should refer to your student handbook for details.
- b. All work submitted must be your own (or your team's for an assignment which has been specified as a group submission) and all sources which do not fall into that category must be correctly attributed. The markers may submit the whole set of submissions to the JISC Plagiarism Detection Service.

CI236 Group Project 2014-15 (Part 1)

Title Group project - requirements analysis and design of an environment
Dates **Issue:** Tuesday 10th of February, 2015
Interviews: Tuesday and Thursday 17th and 19th February 2015
Due in: 3 am, 23rd of March 2014

Staff Nour Ali, James Burton, and Stelios Kapetanakis

Objectives

- To gain further experience of the initial stages of the development life cycle including the analysis of requirements using analytical modelling techniques
- To be able to analyse and document the current procedures of a typical business organisation
- To be able to give due consideration to the problems of the business organisation and its requirements for new systems.
- To appreciate the iterative nature of IT systems development projects and the disciplines and procedures associated with it.
- To become familiar with the planning and distribution of work between members of a team, and the monitoring of the progress of a project.

Outline

This piece of work broadly covers the work a software engineer would undertake during the requirements gathering phase of a project, and is also a task in project management. You may also, however, be expected to call on your knowledge of software gained elsewhere on the course. You are an organization that is developing a system for a client. The client needs a calendar. You will be able to obtain further information from your tutors who will act as the client during tutorial sessions.

The system to analyze and design is a calendar system for the university. It is used by staff to add their personal diaries. A staff can add appointments on specific days on specific times, and for concrete durations. You can also delete appointments from your own diary. This personal diary can be shared among other staff who accepts to share their diaries with. These are a group called Staff can view the calendar of other staf. Also, staff can make meeting requests. If they are accepted, they become part of the diary of the friends involved. Also, accepted meetings can be later rejected. The calendar can be used both on a desktop or a mobile phone.

All work to be undertaken will need to be planned carefully, and spread evenly over the period of the coursework. Previous experience has shown that students always underestimate the time required to produce systems documentation particularly using drawing software. No sympathy will be given to those who leave their work to the last few days and then find they are unable to complete it on time.

Group

Usually, each team will be composed of five members. Each member will take one of the following leadership roles:

- a. Project Leader (ensures tasks are on time, allocates tasks, organizes meetings,)
- b. Technical Leader (Ensures that members have the technical information, coordinates that knowledge is shared among members,)
- c. Quality Assurance Leader (that the artefacts produced satisfy project tasks)
- d. Configuration Manager (ensures documents are up to date, integrates works of others, responsible for delivering group work)
- e. Process Leader (Ensures methodologies, processes and tools are appropriately in place for appropriate tasks.

These roles can change overtime based on agreement within the group.

Each team has a github private repository provided. Tutors can access this repository and view members' contributions. Each student is responsible for creating a github account and emailing it to the tutor so that they can access the repository.

Work to be done

- 1 Further information and clarification can be obtained from your tutor, who will act as your client during the tutorials. The information that you get from your tutor should be carefully recorded
- 2 Each member has to access github and **at least** share a file once during this phase.
- 3 You have to produce the following:

3.1 Planning Product

- 3.1.1 A table/gannt chart of how the group **plans** to carry out phase 1 of this project. This should consist of a list of tasks, and for each task an estimation of effort needed, completion date and who is allocated to the tasks.
- 3.1.2 Copies of agendas and minutes of group meetings
- 3.1.3 Each group member needs to keep an individual log or diary. This has to be sent individually.
- 3.1.4 A table/gannt chart that **represents any changes** to the plans described in 3.1.1. This section will be used to evaluate the contribution of each member, which will affect the individual grade.

3.2 Requirements and design

- 3.2.1 A document detailing the requirements for the new system. This will include functional and non-functional requirements. At least there should be five non-functional requirement specifications. **Each team member will be responsible for one non-functional requirement specification.** Highlight the names of each team member above each non-functional requirement specified by him/her.
 - 3.2.2 A use case model for the requirements of the calendar by using a UML tool.
 - 3.2.3 Detailed system use case descriptions, by using the use case template provided. **Each team member will be responsible** for at least one use case description.
 - 3.2.4 Describe at least five user scenarios and their actors. **Each team member is responsible for at least one user scenario and the design of a screen** fulfills the user scenarios.
 - 3.2.5 Define a conceptual model by using a class diagram.
 - 3.2.6 Design an Entity-Relationship diagram.
 - 3.2.7 Build a database for the calendar. You should build only one database for the group.
 - 3.2.8 Design a high level architecture that includes the main components of your system and how they are interconnected.
 - 3.2.9 Apply the Model View Controller pattern to the calendar system. Show how each component of the pattern is specialized for the calendar. Explain how this pattern is useful and how non-functional requirements are achieved by using this pattern.
- c. If any detail from the System Outline is unclear and you have been unable to clarify it during your interviews, you may need to make some assumptions. These assumptions should conform to reasonable practice and should be clearly stated. Marks will be deducted if any of your work is unclear.

Individual Report

Each member has to submit an individual document that includes the following:

Describe your role and how it evolved during the first phase.
Describe the other roles played in the team.

Has there been any problems in the dynamicity of the team, did you solve them and how?
 How many physical group meetings happened in this phase? How many did you attend?
 Evaluate your attendance in respect to other group members.
 What activities were performed in group meetings?
 Did you learn from your team members, or helped them in learning? What aspects where they? (These could be technical or Non-technical)
 Describe the problems you solved or participated in solving (indicate with whom)
 Describe the decisions you made and the process of making them (indicate other group members if applicable)
 Describe the stages of the life cycle undertaken in this phase (this does not have to be a sequential approach)
 Describe the tools and methods used in this phase of the project and how you gathered information to choose them.
 Consider the quality of the analysis/design you produced (e.g., did you consider risks, non-functional requirements, etc)
 What are the lessons learnt undertaking the first phase.
 How do you view on undertaking the second phase of the project, e.g., your role, tasks to be developed, etc

Timetable

Tuesday 10 th February – 15pm	Introductory lecture. <i>It is important that you attend this lecture</i>
Monday 16 th February – by 5.00pm	<i>Final groups will be posted. No changes will be made</i>
Monday 16 th of February- by 5.00pm	Each member sets a github account and emails it to tutor to give them access to repository.
Tuesday 17 th / Thursday 19 th February	Interview Clients in tutor sessions
3 am, 23 rd of March 2015	Hand in date for part 1
Friday 23 rd of March, 2015	Part 2 hand out

Materials

You must make your own back-ups. **Loss of work because a failure to take adequate backup procedures will not be accepted as a valid reason for late or incomplete work.**

Hand In

The work to be handed in will be in several sections and needs to be well-organised for ease of reference.

Support

- Tutors will be on hand at scheduled times during the coursework period to give any assistance. To see a tutor outside these times cannot be guaranteed but, if it is possible, meetings must be arranged in advance.