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| COMP1640 (2020/21) | **Enterprise Web Software Development** |  |
| **Course Leader: Matt Prichard** | **Coursework** | **Deadline Date: 04/11/2020** |
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| **Plagiarism is presenting somebody else's work as your own. It includes: copying information directly from the Web or books without referencing the material; submitting joint coursework as an individual effort; copying another student's coursework; stealing coursework from another student and submitting it as your own work.  Suspected plagiarism will be investigated and if found to have occurred will be dealt with according to the procedures set down by the University. Please see your student handbook for further details of what is / isn't plagiarism.** All material copied or amended from any source (e.g. internet, books) must be referenced correctly according to the reference style you are using.   Your work will be submitted for plagiarism checking.  Any attempt to bypass our plagiarism detection systems will be treated as a severe Assessment Offence. |

#### **Coursework Submission Requirements**

* An electronic copy of your work for this coursework should be fully uploaded by midnight (local time) on the Deadline Date.
* The last version you upload will be the one that is marked.
* For this coursework you must submit a single Acrobat PDF document. In general, any text in the document must not be an image (i.e. must not be scanned) and would normally be generated from other documents (e.g. MS Office using "Save As .. PDF").
* **For this coursework you must also upload a single ZIP file containing supporting evidence.**
* There are limits on the file size. The current limits are displayed on the coursework submission page on the Intranet
* Make sure that any files you upload are virus-free and not protected by a password or corrupted otherwise they will be treated as null submissions.
* Comments on your work will be available from the Coursework page on the Intranet. The grade will be made available in the portal.
* You must NOT submit a paper copy of this coursework.
* All coursework must be submitted as above

The University website has details of the current Coursework Regulations, including details of penalties for late submission, procedures for Extenuating Circumstances, and penalties for Assessment Offences.  See <http://www2.gre.ac.uk/current-students/regs>for details.

#### **Scenario**

This is a group coursework. You will be assigned to a group.

You need to adopt agile scrum working practices and document your meetings appropriately. Ideally you need a **database designer**, an **information architect**, a **programmer**, a **web designer** and a **tester**, as well as a **scrum master** and **product owner**, but more than one person can be in any technical role. No one is to take the role of project manager, but there could be a technical team leader.

You will get an individual grade (40%) based on your report. There is also a group grade (60%), weighted by your contribution to the team effort (from 0% to 100%).

**Specification**

You are required to build a web-based secure role-based system for collecting student contributions for **an annual university magazine** in a large university.

The system must meet the following criteria:

* The University has a **Marketing Manager** to oversee the process.
* All Faculties have a **Marketing Coordinator** who is responsible for **managing** the process for **their Faculty.**
* **All students** have the opportunity to **submit** **one or more articles** as **Word documents** to the magazine.
* All **students** can also upload **high quality images**, e.g. **photographs**.
* All **new contributions** are **disabled** after **a closure date** for **new entries**, but **updates** **can continue** to be done **until a final closure date**.
* **All students** must **agree** to **Terms and Conditions** before they can submit.
* Once a contribution is submitted the system **emails a notification** to the **Faculty’s Marketing Coordinator**, who must make a **comment** within **14 days**.
* A **Marketing Coordinator** can **only access** contributions by students in their Faculty.
* Each **Marketing Coordinator** needs to be able to **interact** with the **students** in their **Faculty** in order to **edit** the contributions and to select those for publication.
* The University **Marketing Manager** can view all the **selected contributions** but **cannot edit any**. They need to be able to **download** all the **selected contributions** after **the final closure** **date** in a **ZIP** file for **transfer** out of the system.
* An **administrator** maintains **any system data**, e.g. **closure dates** for each academic year.
* A **guest account** for each **Faculty** can be used to view **the selected reports**.
* **Statistical analysis** (e.g. number of contributions per Faculty) needs to be available.
* The interface must be suitable for all devices (eg mobile phones, tablets, desktops).

**Assumptions**

You must clearly state any assumptions you make.

**Reports**

A number of reports need to be made available. For example

* Statistics
  + Number of contributions within each Faculty for each academic year.
  + Percentage of contributions by each Faculty for any academic year.
  + Number of contributors within each Faculty for each academic year.
* Exception reports
  + Contributions without a comment.
  + Contributions without a comment after 14 days.

**Tasks**

1. Work as a team using agile scrum methods to develop and test a secure web-based system to meet the above specification.
2. Create a Panopto screencast recording (including screen and sound) demonstrating the key functionalities of the system.
3. Present the finished product to a non-technical audience to try to persuade them to purchase your system.
4. Document the system to an appropriate standard, including an evaluation of the design process you followed and your reflection on the finished product, and on the contributions of your team members.

**Deliverables**

1. A **Group Report based on a Group Repository** containing all the artefacts produced by the team (eg ERD, minutes, test log, product backlog) with a menu allowing easy access to its content. The repository must be secure, but accessible by your tutors. The Scrum Master is responsible to ensure this gets uploaded by the due date. It is not essential that all members upload a copy of the group report but it must be clear which students are in which group.
2. An **Individual** **PDF Report**  
   The report must give the **URL** of the Group Repository, the Screencast and the website and any **usernames or passwords** needed to access it. The **individual component of the marking will be based on your report,** so ensure this has evidence that your system meets the specified requirements. **The text in your individual report must be entirely your own words.**
3. A **Presentation** and **Screencast**  
   You must be present aspart of the team that presents the finished product to your tutor, and should contribute to the screencast. The **presentation** should be pitched at a non-technical audience to try to persuade them to purchase the product; the **screencast** should demonstrate the functionality of the system

**Assessment Breakdown**

**Group Component (60%)**This will be assessed based on a group report and a group repository created by the group on a secure shared area accessible to the Greenwich moderator. Password and URL must be provided in individual reports. Must be suitably structured with a menu. Suggested location: GitHUB, SharePoint 365, own website, DropBox or other repository.

Database 10%  
Expect: Security, appropriate data types and validation, clear ERD, referential integrity implemented, enables roles to be implemented

Site design 10%  
Expect: Responsive design, clear information architecture for both mobile and desktop, aesthetically pleasing, good usability, meets accessibility criteria

Functionality 10%  
Expect: Role based security, upload of documents and images, email notification, summary and exception reports, UML diagrams, code snippets, analytics of use  
  
Testing 10%  
Expect: Test plan, test log, sufficient data to fully test, evidence of testing finding errors, test items linked to user stories in the product backlog

Agile methods followed 10%  
Expect: Burn down chart, minutes of meetings, user stories, sprints, product backlogs

Screencast and Presentation 10%  
Expect: Professional standard of presentation promoting the product, with contributions by all the team members, Screencast demonstrating all the main features of the product. Screencast can be done by one person.

**Weighting factor for each student (scale 0 to 10) to be applied by the tutor to determine the group grade awarded to each student.**

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| **Commitment** | **Weight** |
| Fully committed | 10 |
| Committed | 8 |
| Contributed substantially | 6 |
| Contributed partially | 4 |
| Minimal contribution | 2 |
| No contribution | 0 |

**Individual Component (40%)**N.B.: No shared content in the report, i.e. must be entirely in your own words, Must include title page with a list of team members and roles, URL and password of group repository, site and screencast.

Evaluation of product and process 10%  
Expect: Appropriate screen shots and commentary, with cross references to group documents, evaluative comments on the product and on the agile process used to build it

Evaluation of team 10%  
Expect: A weighted scoring model of the entire team (including yourself) with own choice of criteria and weighting, supported by commentary on each individual member. Model is expected to produce a range of scores for the individual members.

Self-evaluation 10%  
Expect: Honest description of own contribution, and reflection on own performance and any lessons learnt  
  
Quality of documentation 10%  
Expect: NO SHARED CONTENT, professional standard, header page, page numbers, table of contents, headings, cropped images, figure captions, no spelling or grammatical errors.

**Indicative Grading Criteria**

>=70%   
Well designed system to fully meet the requirements  
Professional standard of report, with appropriate documentation  
High level of individual commitment  
High level of evaluative commentary  
  
60-69%  
Well designed system to meet most of the requirements  
Professional standard of report  
High level of individual commitment  
Limited evaluative commentary

50-59%  
Well designed system to meet most of the requirements  
Acceptable standard of report  
Good level of individual commitment  
Limited evaluative commentary

40-49%  
Acceptable system to meet most of the requirements  
Acceptable standard of report  
Acceptable level of individual commitment  
Limited evaluative commentary

<40%  
Poorly designed system   
Few requirements met  
Poor standard of report  
Limited individual commitment  
No evaluative commentary