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| COMP1787 (2022/2023) | Requirements Management | Contribution: 100% of course |
| Module Leader:  Dr. Aditi Rawal | Coursework Term 2 (collabs) | Deadline Date: 27/04/2023 |

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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 have been asked to use. 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 must be fully uploaded on the Deadline Date using the appropriate link.**
* **For this coursework you must submit a single 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"). An exception to this is handwritten mathematical notation, but when scanning do ensure the file size is not excessive.**
* There are limits on the file size (see the relevant course Moodle page).
* 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.
* **You must NOT submit a paper copy of this coursework.**
* **All coursework must be submitted as above. Under no circumstances can they be accepted by academic staff**

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>

Detailed Specification

**This coursework must be completed as an individual piece of work.**

You must complete this assignment using the given case study (Brightstar Ltd. Case Study)  
Start by reading the information given in the case study (which is included in this coursework specification).

**Produce all of the deliverables detailed below.**  
Note that the case study contains a lot of information about Brightstar Ltd. - read it carefully.

*Note that your discussions should relate to what you have found in the case study and/or what you have learnt as a result of undertaking the given activities. External sources should be in Harvard style of referencing – we want to see your thoughts, ideas, and interpretations.*

Brightstar Ltd. (BL) Case Study

Company overview

Brightstar (BL) is a charitable organisation in the UK that hosts numerous fundraising events to secure funds for academic and sports scholarships. The organisation has several university and college partners and manages hundreds of scholarships that students can apply for.

BL consists of three main departments, respectively dealing with fundraising, scholarship application and management, and treasury, and employs about 45 individuals.

A small IT division assists all departments by providing IT support and infrastructure. Over the last 20 years the division also systematically developed a web-based platform for managing the scholarships. The system has proven to be highly effective and, apart from a few minor issues, staff members over all departments are happy to use it.

The system currently supports the registration and management of scholarship candidates, who can log onto the platform to track their applications. Staff can use various built-in tools to evaluate and score applications in order to find the most appropriate candidate for each scholarship. Although candidates can indicate preferred scholarships, the application forms for either academic or sports scholarships are general enough to match promising prospects to suitable alternatives in case they are unsuccessful in applying for their first choice. The selection process involves substantial human interaction, but the system has constantly been enhanced and perfected to provide a highly optimal amount of automation. Once a scholarship is awarded an applicant is notified and needs to confirm acceptance.

Not all scholarships are alike, and the scholarship application and management team need to track when and how funds are released and whether the criterion for ongoing support is consistently met by both the students and the academic institution. The system supports this function well, as the team can add notes, activities and deadline dates to each case and will subsequently be reminded of pending processes.

The system also supports the treasury department by keeping track of funds, how they are allocated and where they can be applied. Currently there is no automatic communication or synchronisation between the platform and the organisation’s banking system, and a fair amount of data entry needs to be duplicated on both systems. This has caused some data integrity issues in the past, but the treasury department consists of conscientious individuals who minimise the number of mistakes made. Development of a synchronisation system has been given a high priority, as the occurrence of human error is exceedingly unpredictable.

Finally, the system supports contact with businesses, individuals, and other sources of donations, and has facilities to support events planning. In addition, it helps the fundraising team with the collation of contacts and mailing lists, which are used for marketing purposes.

Esports and a new system

Electronic sports (esports) is a term used to describe competitive gaming and, although e-sports have long been a part of video game culture, there has been a surge in popularity since the early 2010’s. E-sports cover various genres, including first person shooters, real-time strategy games and battle arenas, and competitions have started to attract major sponsors for highly lucrative tournaments.

The chief executive of BL wishes to remain contemporary and, after various consultations, have decided to branch out into e-sports scholarships. They reasoned that early adoption may allow for enough time to establish relationships with sponsors and starting small would allow for the launching of new scholarships and the perfection of selection criteria over time.

After careful investigation the scholarship application and management team found that, although the current information system would allow for the registration of applicants and the management of funds, there are inadequate facilities to support the application and selection process for e-sports.

A meeting was called with Flo Johnson, the head of the IT division, to discuss the addition of these facilities to the system. Flo was highly resistant to immediate integration into the new system and convinced the chief executive that he could build a highly functional prototype system by re-using those parts of the current system that would remain the same and adding new functionalities to investigate the changes required. Once the new system proved to be successful, they could work towards expanding the current system. He also assured the executive that he would finish the prototype within 3 months.

Flo recently completed a course on agile approaches as part of his professional development and, since he has never had the opportunity to apply what he had learnt, he was excited to use an agile approach for the development of the new prototype system. In particular, he was convinced that Agile based approach would be an excellent choice.

Information about the e-sports scholarship system was gathered during a facilitated workshop and is summarised below in Appendix A.

Appendix A: Facilitated Workshop Data Facilitated Workshop Meeting for Management Information System

Agenda

1. Introduction and Terms of reference (10 minutes)
2. Requirement’s exercise (20 minutes)
3. Small group discussion exercise (30 minutes)
4. Feedback and outline requirements plan (30-40 minutes)

Minutes of Meeting held in Meeting Room A Present  
Flo Johnson (Head of IT) (Chair)  
Daisy Watson (Treasury Team)

Francis Smith (Fundraising Team)  
Rohan Singh (Scholarship Application and Management Team) Jan Dalton(Scholarship Application and Management Team) David Dahl(Executive)  
Maya Lou (Contracted E-sports Expert)  
Angel Wilmott (Secretary to Operations Director) Secretary Apologies  
None

Introduction and Terms of Reference

Flo Johnson (SM) welcomed all to the meeting and outlined the purpose of the meeting – to identify the main requirements for the new system and set the priority and agenda for the future development.

SM reported that, following the recent meeting with the chief executive, it was decided that the e- sports prototype system must be developed as soon as possible, as this is an important avenue for the company to pursue in order to remain contemporary. They wanted to be confident that the system will not only allow for the registration and selection of e-sports scholarship candidates but will also provide a blueprint for integration with the current system. The executive has set a target of getting a prototype system up and running within 3 months of the start of the project, and plan on working with e-sports experts to enhance the system.

SM outlined the activities for the rest of the meeting.

**Requirements List Exercise**

Each person was asked to list their requirements for the new system on a form supplied by SM. The following is a summary of those requirement sheets:

1. Daisy Watson (Treasury Team)

- A login facility.  
- A facility to keep track of funds, how they are allocated and where they can be applied.

- We were hoping for the synchronisation between the system and the organisation’s banking system and were promised that this would be the next project to be taken on by the IT division. You should build this facility into the prototype.

2. Francis Smith (Fundraising Team)

- When the facility for fundraising activities is ported to the new system a category should be added for e-sports donors.

- The system should be fast and responsive.

- The system should allow for communication with businesses, individuals, and other sources of donations

- The system should support events planning.

- The system should facilitate the collation of contacts and mailing lists.

3. Rohan Singh (Scholarship Application and Management Team)

- Categorise different e-sports.

- Consult with the scholarship application and management team and experts to find suitable criteria for each category.

- Compile the criteria for each category into preliminary application forms.

- There should be tools available to help choose the best candidates. Some of the current tools may work, but many would need to be developed.

4. Jan Dalton (Scholarship Application and Management Team)

- Allow for real-time changes to be made to the application forms by the scholarship application and management team. This feature is not available on the current system and would be a great help to improve the turn-around time on requested changes.

- Applicants should be able to track the status of their applications throughout the selection process.

- We must be able to notify applicants whether they were successful.

- Applicants must be able to formally accept a scholarship offer.

- We should be able to manage active scholarships by tracking deadlines, setting up notifications and making notes on the system.

5. David Dahl (Executive)

- Remember that relevant parts of the old system need to be pulled, integrated into the prototype and tested. Don’t forget about them, they should be part of the requirements. I’m not going to list them – you should know what they are.

6. Maya Lou (Contracted E-sports Expert)

- Applicants must be able to register on the system.

- Applicants must be able to view available scholarships.

- The system should automatically inform users of completed actions, such as registration or the successful submission of an application.

- When applying for a scholarship the system should allow for applicants to supply context sensitive information. For example, in a real-time strategy game the number of actions per minute a player can perform is imperative. In addition, they should be able to list their accomplishments, such as tournament wins and rankings.

- The system must be user-friendly, and it is important to convey knowledge of each genre and respect for the various electronic games, or the applicants will be reluctant to trust you.

**Deliverables:**

The case study tells us that the head of the IT division, Flo Johnson, has decided to recommend one of the approaches associated with Agile Methods to the executive of Brightstar

There are three sections to this coursework. Make sure that you complete all three sections.

**Section A – Introduction (10% of the marks)**

This section should consider the following components:

* Introduces the rationale and the business drivers of this project.
* To be written in third person
* Capture the reader's attention.

Your answer should be in the region of 500-750 words.

**Section B – High level requirements analysis and MoSCoW prioritisation (45% of the marks)**

Appendix A of the case study provides details (including minutes) of a Facilitated Workshop session run by Flo Johnson and attended by a number of the key staff in the organisation.

At the end of the session a list of ‘high level requirements’ was produced.

Flo Johnson was disappointed to see that some of the members of the workshop did not seem to understand the format of well-defined high-level requirements. It was clear from the requirements sheets that a couple of individuals did not put effort into the exercise, and it was found that some of the items listed were slightly rude!

The collection of requirements listed in Appendix A is an inappropriate set of requirements for developing a system, as a number of the requirements do not meet our criteria for a ‘high level requirement’.

**Remember, a high-level requirement should be a functional requirement that can be delivered to the user as part of an incremental approach using a timebox (or number of timeboxes).**

Using the information given throughout the case study to help you, complete the following:

B1:  Review the ‘high level requirements’ list given at the end of Appendix A and identify any of the requirements that you feel are not appropriate high-level requirements, giving your reasons for this.

B2:  Rewrite, and add to, the list to end up with a total of 8-10 ‘updated’ functional and non-functional requirements that you feel are required for building the system. Briefly justify the need for each of your high-level requirements against information you have gathered from the case study.

rq -23 the system must be user-friendly : ko rõ ràng, khoong cần hệ thống nó vẫn chạy được

when apply for học bổng the sýtem should allow for applicant to supply context sénitive info : yes, thông tin tày dùng để họ phân loại học bổngt. No, nếu chia sẽ thông tin nhạy cảm thì không phù hợp.

B3: Use the MoSCoW/Timebox rules to prioritise the requirements in your updated **functional**  requirements list.

Your answer to section B should be in the region of 750-1000 words

**Section C – Legal, Social, Ethical and Professional issues (30% of the marks)**

BL needs to start considering Legal, Social, Ethical and Professional Issues (LSEPI) in relation to its day-to-day operations. They also need to appoint a Data Controller.

Produce a management summary explaining:

(C1) the role of the Data Controller within the organisation and

(C2) any legal, social, ethical, and professional issues that BL may be faced with. As a part of your answer to (C2) provide **one practical example** from the case study that relates to **each** aspect of LSEPI.

Your answer to C1 should be in the region of 1000 words.

**Conclusion and assumptions made (10% of the marks) –** Make sure to provide a strong conclusion.

**References (5% of the marks) –** To be done in Harvard style only.

**Assessment Criteria (Breakdown):**

Section A - Introduction - 10%

Section B –Requirements analysis and MoSCoW prioritisation45%

Section C - Legal, Social, Ethical and Professional issues30%

Conclusion and assumptions: -10%

Harvard Style of referencing- 5%

**Grading Criteria**

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| 80% + | * An **outstanding attempt** demonstrating a genuinely unique and a deep understanding of the requirements of the assignment. * Demonstrate an outstanding understanding of the issues surrounding the application of Agile based methods to a development environment. * Demonstrate exceptional understanding of high-level requirements analysis and MoSCoW prioritisation. * Apply the MoSCoW rules thoroughly, demonstrating an outstanding understanding of the need for incremental delivery. * Demonstrate an outstanding understanding of the DPA principles and the practical role of the Data controller. * Demonstrate an outstanding understanding of the role of the professional and, in particular, the BCS code of conduct. * A deeply impressive demonstration of research, organisation, initiative, analysis, and application, **worthy of publication** with the required referencing. |
| 70%- 79% | * An **excellent** attempt demonstrating a clear understanding of the requirements of the assignment. * Demonstrate a thorough understanding of the issues surrounding the application of Agile based methods to a development environment. * Demonstrate a thorough understanding of high-level requirements analysis and MoSCoW prioritisation. * Apply the MoSCoW rules sensibly, demonstrating a clear understanding of the need for incremental delivery. * Demonstrate a thorough understanding of the DPA principles and the practical role of the Data controller. * Demonstrate a thorough understanding of the role of the professional and, in particular, the BCS code of conduct. * Bring original thought to the argument; |
| 60%- 69% | * Demonstrate a **good understanding** of the issues surrounding the application of Agile based methods to a development environment. * Demonstrate a good understanding of high-level requirements analysis and MoSCoW prioritisation. * Apply the MoSCoW rules sensibly, demonstrating a good understanding of the need for incremental delivery. * Demonstrate a good understanding of the DPA principles and the practical role of the Data controller. * Demonstrate a good understanding of the role of the professional and, in particular, the BCS code of conduct. * Bring some original thought to the argument; |
| 50%- 59% | * A **satisfactory attempt** demonstrating an effective understanding of the assignment. * Demonstrate understanding of some of the issues surrounding current development methodology approaches. * Demonstrate understanding of some of the issues surrounding the application of Agile based methods to a development environment. * Demonstrate understanding of some the issues relating to high level requirements analysis and MoSCoW prioritisation. * Apply the MoSCoW rules in a sensible way demonstrating some understanding of the need for incremental delivery. * Demonstrate an understanding of the DPA principles and the practical role of the Data Controller. * Demonstrate an understanding of the role of the professional and, in particular, the BCS code of conduct. * Identify some practical examples relating to the above |
| 40%- 49% | * Demonstrate a **basic understanding** of the issues surrounding the application of Agile based methods to a development environment. * Demonstrate a basic understanding of high-level requirements analysis and MoSCoW prioritisation. * Apply the MoSCoW rules in a basic way. * Demonstrate a basic understanding of the DPA principles and the practical role of the Data controller. * Demonstrate a basic understanding of the role of the professional and, in particular, the BCS code of conduct. |
| Below 39% | * Demonstrate a **poor understanding** of the issues surrounding the application of Agile based methods to a development environment. * Poor understanding of the requirements of the assignment. * Possibly some confusion and much irrelevant material. * Lack of clarity on the MoSCoW rules. * Demonstrate an inadequate understanding of the DPA principles and the practical role of the Data controller. * Demonstrate inadequate understanding of the role of the professional and, in particular, the BCS code of conduct. |