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| COMP1787 (2020/2021) | Requirements Management | Faculty Header ID: | Contribution: 100% of course |
| Course Leader:  Aditi Rawal | Coursework Term 2 | Release Date: | Deadline Date: 26th April 2021 |
| **This coursework will be marked anonymously YOU MUST NOT PUT ANY INDICATION OF YOUR IDENTITY IN YOUR SUBMISSION** | | | |
| This coursework should take an average student who is up to date with tutorial work approximately 50 hours | | | |
| **Learning Outcomes:**  1 Analyse and compare current approaches to requirements management within a development environment.  2 Assess the impact of stakeholders and organisational culture on the development of effective requirements and system development.  3 Relate issues associated with risk, quality, and Legal/Social/Ethical/Professional (LSEPI) to a practical scenario. 1 Analyse and compare current approaches to requirements management within a development environment. 2 Assess the impact of stakeholders and organisational culture on the development of effective requirements and system development. 3 Relate issues associated with risk, quality, and Legal/Social/Ethical/Professional (LSEPI) to a practical scenario. 1 Analyse and compare current approaches to requirements management within a development environment. 2 Assess the impact of stakeholders and organisational culture on the development of effective requirements and system development. 3 Relate issues associated with risk, quality, and Legal/Social/Ethical/Professional (LSEPI) to a practical scenario. | | | |

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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 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.
* Your work will not be printed in colour. Please ensure that any pages with colour are acceptable when printed in Black and White.

#### 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**  
Firstly, read the information given in the case study (which is attached to this coursework specification).

Then produce **all** of the deliverables detailed below.

**Important instructions**

* **Do not use previous student’s coursework** as a basis for your work. It will be identified.
* **Do not use any material from books, academic papers, the internet or any other source** when writing about the process and carrying out your critical reflection. It is your own views that are required.
* Any attempt to use other people’s material in your coursework, whether taken from a classmate from another source, will result in you receiving **a lower mark** and possibly being awarded **zero**.
* **Do not copy the whole case study into your report.** Only submit the work you have completed.
* Ensure that you can successfully upload a file to the correct submission area **prior to the deadlines.**

**Deliverables**

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

**Assessment Criteria**

**Section A** – 20% of the marks

**Section B** – 30% of the marks

**Section C** – 30% of the marks

**Assumption and References – 20%**

**(remember you need to have introduction and conclusion)**

**Grading Criteria**

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| **A**  **70%-100%** | * Demonstrate a thorough understanding of the issues surrounding the application of Agile/SCRUM/RAD/DSDM 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 Legal, Social, Ethical and Professional issues and how these impact a developer. * Demonstrate a thorough understanding of the role of the professional and, in particular, the BCS code of conduct. * Bring original thought to the argument; |
| **B**  **60%-69%** | * Demonstrate a good understanding of the issues surrounding the application of Agile/SCRUM/RAD/DSDM 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 Legal, Social, Ethical and Professional issues and how these impact a developer. * 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; |
| **C**  **50%-59%** | * Demonstrate understanding of some of the issues surrounding current development methodology approaches. * Demonstrate understanding of some of the issues surrounding the application of Agile/SCRUM/RAD/DSDM 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 Legal, Social, Ethical and Professional issues and how these impact a developer. * 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 |
| **D**  **40%-49%** | * Demonstrate a basic understanding of the issues surrounding the application of Agile/SCRUM/RAD/DSDM 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 Legal, Social, Ethical and Professional issues and how these impact a developer. * Demonstrate a basic understanding of the role of the professional and, in particular, the BCS code of conduct. |

**A Touch of Glass (TOG)**

**Overview and TOG Order Handling System**

Sarah Bromley’s father was a glassblower and he taught her this trade when she was in her late teens. In 2008 she started making glass ornaments and jewellery for friends, but soon realised that there was quite a demand for her products when more and more people tried to get in contact with her over social media to enquire about the pieces, she had available. She decided that this was an opportunity to turn a hobby into a small business and registered the company name “A Touch of Glass by Sarah.” Her friend helped her to create a Facebook account for the company, where she posted pictures of the pieces she was producing, and she sold them on a first-come, first-served basis. Although this helped her separate the business from her personal Facebook account, the popularity of her items grew quickly and soon she was unable to meet demand, having to turn away a large number of interested customers and bulk orders by companies. She decided to expand the business and by the end of 2010 she employed 3 glassblowers to manufacture her designs.

At this point Sarah realised that Facebook was no longer a viable way to interact with customers and she decided to start selling through a popular peer-to-peer e-Commerce websites that allows users to market and sell their wares. This solved the immediate e-Commerce problems she experienced with Facebook, but the systems were still cumbersome.

By 2016 Sarah’s company had grown into a highly profitable small business, employing a team consisting not only of Glass Artists, but also an Finance Director, an Operations Manager, Warehouse manager and warehouse staff to package and ship items, and Marketing manager to manage customer care and social media. Although many orders were still placed by individuals, a large number of companies regularly bought bulk items, such as wine glasses. The company now sold ornaments and sculptures, including bespoke pieces, as well as functional items such as glasses and vases.

The current platform allowed customers to search for and browse items, add them to a basket and make payments using the systems allowed by the peer-to-peer e-Commerce website, such as PayPal. The team at TOG could contact buyers through third party systems and communicate with customers through social media, although these systems presented some drawbacks. As the customer base grew it became increasingly difficult to keep track of them (both individuals and businesses) and their purchase profiles. The team also found it challenging to effectively market promotions and manage customer care.

Another difficult area to manage is the small part of the business that deals with bespoke items. Although these were not significant in the company’s revenue, all the glassblowers agreed that they were the most satisfying part of the job, as its optimised creativity and often broke the monotony of creating multiple copies of standard pieces. Sarah found that these items were best sourced by clients through the company’s original Facebook account, since it presented the facility to discuss designs and post pictures of the concept art.

**TOG Personnel**

**The Managing Director** – Sarah Bromley, the driving force behind the project and the budget holder. She has also put aside time in a busy diary to be available for this project.

**The Finance Director** – keen to be involved but can be prone to doing a perfect job and is always too busy to attend meetings.

**The Operations Director** – has been with the company from the start and was a senior team member from the business community on an Agile software development project at a previous job. Also responsible for the Order Handling team and happy to make at least one available for the project and empower them to make decisions. Keen to be involved and has made space in his diary. Well informed about what is going on in the company.

**Finance Manager** – generally represents the Finance Director at meetings and is empowered to make decisions on behalf of the Finance Director. Has worked in all departments within the company over the years. Passed accountancy examinations 2 years ago.

**The Warehouse Manager** – not available for the project, but happy to make at least one

Warehouse Operative available for the project and empower them to make decisions on her behalf.

**The Marketing Manager** – available for the project and is also a certified Workshop Facilitator and Agile Project Manager.

**Agility Concepts**

Agility Concepts is an Agile software development consultancy in London. They have purpose-built rooms for SCRUM stand up meetings and Facilitated workshops and use the DSDM Atern framework for all of their software development projects. Agility Concepts assign a dedicated team for each of their projects. The team can be located on-site or off-site.

**Agility Concepts Personnel**

**Willow** – available for the project, she is a very good programmer with a good working knowledge of Web development and a good communicator.

**Ravi**– available for the project, he is an excellent Web developer, but has been known to have stand-up arguments with customers.

**Maggie** – available for the project, she has good Web site development skills and works for the

Samaritans in her spare time.

**Jon**– available for the project, he has worked on several Agile development projects as a

Team Leader and has a very good understanding of Web site development.

**Thomas**– available for 3 days a week throughout the project and has a good understanding of Web development and testing.

**Table 1: Base lined list of requirements for the Web site**

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| --- | --- | --- | --- |
| **ID** | **Requirements** | **Priority** | **Days** |
| **1** | Customers must be able to register and log in. However, it would be great if we could already create accounts for customers we know about and e-mail them their usernames and passwords. |  | **3** |
| **2** | Customers must be able to search and browse different products, whether they are logged in or not |  | **5** |
| **3** | The look and feel of the website should be well designed and showcase the products well. I also want there to be rotating 3D views of the products. |  | **3** |
| **4** | People should be able to contact us for bespoke items and the system should facilitate communication with them, including messages and sending pictures. |  | **6** |
| **5** | People should be able to sign up for glassblowing classes. |  | **8** |
| **6** | The site must load quickly. |  | **3** |
| **7** | As a Customer I want a choice of delivery slots so that I can arrange my diary appropriately. |  | **5** |
| **8** | As the Operations Manager there needs to an ability to track an item’s lifecycle, from where the order is placed, up to the point where customers sign for the item they receive. Alerts should be sent to people in different phases of the lifecycle, like notifications for a job. |  | **5** |
| **9** | As the Operations Director I want to gather statistics on item popularity |  | **5** |
| **10** | As a Customer I want to choose whether or not I am sent marketing information so that I do not get loads of junk mail. |  | **2** |
| **11** | As a Warehouse Operative I want to check delivery addresses so that I can place orders with similar postcodes in the same delivery batch. |  | **3** |
| **12** | As a Customer I want to be able to change my account details so that my most up to date details are recorded. |  | **3** |
| **13** | As the Glassblower Artist I like the idea of having an e-commerce website, but I don’t want tours of the facility and I don’t want to teach people how to do it. Do not put that part in the system – tell them it cannot be done in time. |  | **2** |
| **14** | As a Customer I want to have product wrapped and sent to an address other that than my own so that I don’t have to bother wrapping and delivering presents. |  | **4** |
| **15** | As a Customer I would like to personalise and create my own designs. |  | **3** |
| **16** | The site must be safe and secure |  | **3** |
| **17** | As a Customer I want daily emails to let me know the status of my order because I get nervous when I don’t know what is going on. |  | **4** |
| **18** | As the Marketing Director I would like promotions page so that we can inform our customers of current discounts on offer. |  | **3** |
| **19** | As the Managing Director I want to be ensured that the site is Data Protection Act safe so that we do not get fined hundreds of thousands of pounds. |  | **2** |
| **20** | As a customer I want to be able to process returns via the Web site so that I do not have to phone up and answer all of those stupid questions before being put through to a human being. |  | **4** |

**Section A – Management Summary (20% of the marks)**

The case study tells us that the Management Director has decided to recommend one of the approaches associated with Agile Methods to the team of Agility Concepts. The Agile Method that they would prefer would be SCRUM with Agile.

Produce a management summary explaining whether SCRUM with Agile concepts an appropriate method would be to use for the project. Outline any advantages/drawbacks that you perceive. Give examples from the Case Study to support your answer.

**Your answer should be in the region of 750-1000 words.**

**Section B – High level requirements analysis and MoSCoW prioritisation (30% of the marks)**

Table 1 of the case study provides details of a Facilitated Workshop session run by the Agility Concepts consultants and attended by a number of the key staff in the organisation of Touch of Glass(TOG).

At the end of the session a list of ‘Base line requirements’ was produced.

**This list is inappropriate as a set of requirements for developing a website, as a number of the requirements need to be sorted out to meet the 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 ‘base line requirements’ list given in table 1.

B1.1 Identify any of the requirements that you feel are not appropriate to be considered at high level requirements, giving your reasons for this.

B1.2 Rewrite, and add to, the list to end up with a total of 8-10 high level requirements (functional and non-functional) that you feel are required for building the website. Briefly justify the need for each of your high-level requirements against information you have gathered from the case study.

**Your answer to B1 should be in the region of 750-1000 words**

B2. Use the MoSCoW/Timebox rules to prioritise the requirements in your updated ‘high level requirements list’.

B2.1. Produce an updated ‘high level requirements list’ clearly showing the prioritisation you have given to each of your requirements.

**There is no word limit for the answer to B2.1.**

B2.2 Explain how you set about prioritising the requirements and justify your reasons for the decisions that you made.

**Your answer to B2.2 should be in the region of 500 words.**

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

C1.TOG personnel need to start considering Legal, Social, Ethical and Professional Issues (LSEPI) in relation to its day-to-day operations.Produce a management summary identifying Legal, Social, Ethical and Professional issues that a system developer for the company would need to be aware of. Provide **two** practical examples from the case study that relate to **each** aspect of LSEPI identified.

**Your answer to C1 should be in the region of 500-750 words**

C2.Produce a management summary outlining the purpose of a professional body, such as the British Computer Society. As a part of this, provide a practical example for each of the **four** BCS Code of Conduct sections to illustrate how the professional body may guide the choices and decisions of their members.

**Your answer to C2 should be in the region of 500-750 words.**