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# Coursework 2 Specification

Read this assessment brief carefully, it tells you how you are going to be assessed, how to submit your assessment on-time and how (and when) you’ll receive your marks and feedback.

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| **Module Code** | CSI\_5\_SFE |
| **Module Title** | Software Engineering |
| **Lecturer** | Lucia Otoyo |
| **% of Module Mark** | 50% |
| **Distributed** | 10/03/2022 |
| **Submission Method** | Submit online via Moodle site |
| **Submission Deadline** | Friday 13/05/22 at 5pm \* |
| **Release of Feedback & Marks** | Feedback and provisional marks will be available in the Gradebook on Moodle from 27/05/22 |

\* Module leader will be available for any troubleshooting related to coursework submission up to the deadline time however please submit well in advance in case you run into technical issues.

## Coursework Aim:

This coursework is designed to provide you with experience of Scrum - a framework for agile software development and agile values, principles and practices. You will work with a client and will be required to elicitate the requirements, justify your selection of tools and then incrementally design and build a prototype of the system in close collaboration with the client following agile practices. This will be done over a period of five weeks.

## Coursework Details:

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| **Deliverables:** | Project team report (80%)  Individual reflection (20%) |
| **Word Count:** | Project team report: 5,000 words (+/- 10%)  Individual reflection: 1,000 words (+/- 10%)  Title page, table of contents, references, bibliography and appendix will not count towards the word total.  If the total word limit is exceeded your mark may be reduced as part of the report quality marking criteria. |
| **Structure of your team report:** | **1. Project Overview**  Describe the project aims and objectives, together with the user high-level requirements.  **2. Technical review**  Define evaluation criteria and then compare and critically evaluate, select and justify tools and technologies chosen for your project. Support your justification with relevant and credible citations. Present a summary table.  **3. Design**  Present creative and practical designs of the system, which address the client problem and user needs. Present three different designs, e.g. architectural design, high fidelity UI/UX, class diagram, Use case, etc)  **4. Development**  Developed system should be working, which should be evident through a demonstration included in the report as a link to a no more than an 8-minute video.  System should address, even exceed, client expectations, which should be evidenced through client feedback. Git versioning system need to be effectively used.  **5. Evidence of Product and Sprint backlog**  User stories in the product and sprint backlog should follow recognized format and should capture all the user needs comprehensively. A record of sprint backlogs should demonstrate good sprint planning.  **6. Retrospective meetings**  Provide a record of all retrospective meetings, which demonstrate continuous process and teamwork improvement.  **7. Presentation and Product Poster**  Your report should conclude with a product A3 format poster illustrating what the client’s problems was and how you solved it, outlining the key design and technical features. You must present your report in a recorded video demonstration (Max 8 mins long) that includes contributions from all team members and clearly demonstrates all the key design features and technical functions of your product. |
| **Structure of your Individual reflection:** | As a separate individual submission on VLE you will be submitting a 1,000 word reflection on your performance, development and an outline and critical evaluation of your contribution to the team project using evidence. You can break down your evidence by sprints, highlighting your contribution in each sprint. |
| **How are marks awarded:** | The team mark will be awarded to each member of the team. However, based on a process of peer evaluation (see Resources section at the end of this specification), individual marks may be adjusted to reflect individual contributions (poor or outstanding) to the team project. |
| **Presentation:** | Work must be referenced, and a bibliography provided.  Work must be submitted as a Word document (.doc/docx) or PDF.  Course work must be submitted using Arial font size 11 (or larger if you need to), with 1.5 line spacing.  Student number for each team member must be shown at the front of the coursework. Do not include your student names in the report. |
| **Referencing:** | Harvard Referencing should be used, see your [Library Subject Guide](https://libguides.lsbu.ac.uk/subjects/home) for guides and tips on referencing. |
| **Regulations:** | Make sure you understand the [University Regulations](http://www.lsbu.ac.uk/__data/assets/pdf_file/0008/84347/academic-regulations.pdf) on expected academic practice and academic misconduct.  Note in particular:  Your work must be your own.  Markers will be attentive to both the plausibility of the sources provided as well as the consistency and approach to writing of the work. Simply, if you do the research and reading, and then write it up on your own, giving the reference to sources, you will approach the work in the appropriate way and will cause not give markers reason to question the authenticity of the work.  All quotations must be credited and properly referenced.  The source of all figures and graphs that you are using in any of the submitted material but that are not produced by you must be credited and properly referenced  Paraphrasing is still regarded as plagiarism if you fail to acknowledge the source for the ideas being expressed.  TURNITIN: When you upload your work to the Moodle site it will be checked by anti-plagiarism software. |

## Learning Outcomes

This assessment (CW2 in the table below) will fully or partially assess the following learning outcomes for this module.

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| Learning outcome | Assessed by | |
| CW1 | CW2 |
| A. Knowledge and Understanding | | |
| * Apply the main practices, techniques, notations and methodologies used in software engineering. | Partially | Fully |
| B. Intellectual Skills | | |
| * Critically evaluate and compare software engineering approaches and techniques. | Fully | - |
| C. Practical Skills | | |
| * Identify requirements and produce corresponding specifications and development plans for complex software systems. | Fully | Fully |
| D. Transferable Skills | | |
| * Document systems in both technical and non-technical terms. | Fully | Fully |

## Assessment Criteria and Weighting

LSBU marking criteria have been developed to help tutors give you clear and helpful feedback on your work. They will be applied to your work to help you understand what you have accomplished, how any mark given was arrived at, and how you can improve your work in future.

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| **Software Engineering CW2 Marking rubric** | | | | | | | | | | | | | |
| **Team report (80% of CW2)** | | | | | | | | | | | | | |
|  | **weight** | **Beyond expectations** | **Exceptional** | **Excellent** | **Very good** | **Good** | **Average** | **Basic pass** | **Limited** | **Very limited** | **Very limited with major issues** | **No evidence** |
| **Project overview and requirements** | 10% | Description of the project problem, aims and requirements go beyond expectations.  10 points | Exceptionally well-defined description, problem, aims and requirements of the project.  9 points | Excellent, well-defined description, problem, aims and requirements of the project.  8 points | Very good description, problem, aims and requirements of the project. 7 points | Good description, problem, aims and requirements of the project.  6 points | Average description, problem, aims and/or requirements of the project.  5 points | Basic description, problem, aims and requirements of the project.  4 points | Project description, problem, aims and/or requirements are not very clear or are incorrect. 3 points | Project description, problem, aims and/or requirements have major omissions or errors. 2 points | Very little to no description, problem, aims or requirements of the project provided. 1 point | No project description, problem, aims and requirements of the project provided. 0 points |
| **Research and Justification of tools and technologies used** | 15% | Evaluation and justification for the technologies and tools chosen is beyond expectations and it has outstanding, relevant, helpful & consistent citations. 15 points | Exceptional evaluation and justification for the technologies and tools chosen with outstanding, relevant, helpful & consistent citations. 13.5 points | Excellent evaluation and justification for the technologies and tools chosen with excellent, relevant, helpful & consistent citations. 12 points | Very good evaluation and justification for the technologies and tools chosen with relevant, helpful & consistent citations. 10.5 points | Good evaluation and justification made with some evidence of research and some citations. 9 points | Average evaluation and justification made with some evidence of research and some citations. 7.5points | Pass: Some evaluation and justification provided although not very clear or completely correct and/or little evidence of research. 6 points | Limited evaluation provided and/or with omissions. 4.5 points | Very limited evaluation. 3 points | Very limited evaluation with major shortcomings. 1.5 points | No evaluation provided. 0 points |
| **Design   • Addresses client’s problem  • Designed to meet users’ needs  • Creative and practical designs** | 20% | Client problem and user needs are addressed beyond client's expectations. System and poster design is very creative and practical.  20 points | Client problem and user needs are addressed exceptionally well. System and poster design is very creative and practical.  18 points | Excellent: Client problem and user needs are addressed excellently. System and poster design is very creative and practical.  16 points | Very good: Client problem and user needs are very well addressed. System and poster design is creative and practical. 14 points | Good: Client problem and user needs are well addressed. System and poster design is basic but practical. 12 points | Average: Client problem and user needs are partly addressed. System and poster design is practical.  10 points | Pass: Client problem and user needs are partly addressed. System and poster design is not very practical.  8 points | Limited design demonstrated.  6 points | Very limited design demonstrated.  4 points | Very limited or almost no design demonstrated 2 points | No design demonstrated. 0 points |
| **Development    • Addresses client’s problem  • A working software developed and tested** | 20% | Client problem and user needs are addressed beyond client's expectations. Developed software is tested and exceeds client’s expectations. It is demonstrated using a professional video demo. GIT versioning system is used effectively.  20 points | Client problem and user needs are addressed exceptionally well. Developed software is tested and works exceptionally well. It is demonstrated using a professional video demo. GIT versioning system is used effectively.  18 points | Excellent: Client problem and user needs are addressed excellently. Developed software is tested and works excellently. It is demonstrated using an excellent video demo. GIT versioning system is used effectively.  16 points | Very good: Client problem and user needs are very well addressed. Developed software works very well and as client expected. It is documented using a very good video demo. GIT versioning system is used very well.  14 points | Good: Client problem and user needs are well addressed. Developed software is tested and works well as client expected. It is documented using a good video demonstration. Git is used.  12 points | Average: Client problem and user needs are addressed. Developed software is tested and partially works as client expected. Only basic video demonstration. Average use of Git.  10 points | Pass: Client problem and user needs are partly addressed. Developed software does not work well or as client expected. Only basic video demonstration and limited evidence of testing provided. Git may not have been used effectively or at all.  8 points | Limited software development and testing demonstrated. 6 points | Very limited software development and testing demonstrated. 4 points | Very limited or almost no software development and testing demonstrated. 2 points | No software development demonstrated.  0 points |
| **Evidence of Product and Sprint backlogs** | 10% | Application of all appropriate elements of a user story captures all stakeholder’s needs beyond expectations in a comprehensive set of user stories. Sprints are planned beyond expectation. 10 points | An exceptionally comprehensive application of all appropriate elements of a user story which captures all stakeholder’s needs in a comprehensive set of user stories. Sprints are exceptionally well planned. 9 points | Excellent and comprehensive application of all appropriate elements of a user story which captures all stakeholder’s needs in a comprehensive set of user stories. Sprints are exceptionally well planned. 8 points | A very good application of all appropriate elements of a user story which captures all stakeholder’s needs in a broad set of user stories. Sprints are very well planned. 7 points | A good application of all basic elements of a user story but captures stakeholder’s needs in a too narrow set of user stories. Sprints are well planned. 6 points | Average application of all basic elements of a user story but captures stakeholder’s needs in a too narrow set of user stories. Sprints are planned. 5 points | Pass: Some attempt made but format not followed or not followed consistently. Not every stakeholder included, or some captured stories are incorrect. Basic evidence of planning present. 4 points | Limited attempt made and format not followed. 3 points | Very limited attempt made, format not followed. 2 points | Very limited attempt made with major shortcomings. Format not followed. 1 point | Non evident. 0 points |
| **Record of Retrospective meetings** | 20% | Comprehensive record of retrospective meetings, providing evidence of continuous and exceptional process and teamwork improvement that's beyond expectations at this level. 20 points | An exceptionally comprehensive record of retrospective meetings, providing evidence of continuous and exceptional process and teamwork improvement. 18 points | Excellent and comprehensive record of retrospective meetings, providing evidence of continuous and excellent process and teamwork improvement. 16 points | A very good record of retrospective meetings, providing evidence of continuous process and teamwork improvement. 14 points | A good record of retrospective meetings showing process and teamwork improvements. 12 points | Average record of retrospective meetings showing process and teamwork improvements. 10 points | Pass: Basic evidence of retrospective meetings taking place on a regular basis. 8 points | Some record of retrospective meetings. 6 points | Very limited record of retrospective meetings. 4 points | Very limited record of retrospective meetings with major shortcomings or in unsuitable format. 2 points | Non evident. 0 points |
| **Quality of Report** | 5% | Writing, structure, spelling, grammar and referencing. 5 points | Exceptional writing, structure, spelling, grammar and referencing. 4.5 points | Excellent writing, structure, spelling, grammar and referencing. 4 points | Very good writing, structure, spelling, grammar and referencing with only minor errors. 3.5 points | Good writing, structure, spelling, grammar and referencing but with some errors. 3 points | Average writing, structure, spelling, grammar and referencing but with some errors. 2.5 points | Pass: Some good writing, structure, spelling, grammar and referencing but many significant errors. 2 points | Limited structure and/or poor spelling, grammar and/or poor/no referencing. 1.5 points | Very limited structure and/or very poor spelling, grammar and no referencing. 1 point | Major issues and omissions with structure, major spelling and grammar issues, no referencing. 0.5 points | No structure, incoherent writing style, no references. 0 points |
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| **Individual reflection and evaluation (20% of CW2)** | | | | | | | | | | | | | |
|  | **weight** | **Beyond expectations** | **Exceptional** | **Excellent** | **Very good** | **Good** | **Average** | **Basic pass** | **Limited** | **Very limited** | **Very limited with major issues** | **No evidence** |
| **Personal reflection and critical evaluation** | 100% | Personal reflection and critical evaluation of the student's performance, development and contribution to the project is beyond expectation and is supported by extensive evidence. 100 points | Personal reflection and critical evaluation of the student's performance, development and contribution to the project is exceptional and is supported by extensive evidence. 90 points | Personal reflection and critical evaluation of the student's performance and development is excellent and is supported by extensive evidence.  80 points | Personal reflection and critical evaluation of the student's performance, development and contribution to the project is very good and is supported by very good evidence. 70 points | Personal reflection and critical evaluation of the student's performance, development and contribution to the project is good and is supported by good evidence. 60 points | Personal reflection and critical evaluation of the student's performance and development is average, perhaps too descriptive, with just enough or little evidence. 50 points | Personal reflection and critical evaluation of the student's performance, development and contribution to the project is basic and descriptive, with little or no evidence. 40 points | Personal reflection and critical evaluation of the student's performance, development and contribution to the project is descriptive and limited and may have omissions. 30 points | Personal reflection and critical evaluation of the student's performance, development and contribution to the project is descriptive and has major omissions or errors. 20 points | Very little to no personal reflection, evaluation or description provided. 10 point | No personal reflection provided. 0 points |

## How to get help

We will discuss this Coursework specification in class. However, if you have related questions, please ask a question on the general chat or contact:

Lucia Otoyo ([lucia.otoyo@lsbu.ac.uk](mailto:lucia.otoyo@lsbu.ac.uk))

## Resources & Additional guidance

**Example tools you can use to record your final demonstration:**

* **QuickTime** screen-recording (tip: enable see click on the pointer, to allow the viewer to see where you are clicking on the screen)
* **Kazam** (simple)
* **OBS** (Open Broadcaster Software) [**https://obsproject.com/**](https://obsproject.com/)– free, open-source video recording and broadcast/streaming software
* **FastStone Capture** (simple)
* **Camtasia** (advanced)
* **MS Teams**
* **Zoom**
* [**https://www.techsmith.com/video-editor.html**](https://www.techsmith.com/video-editor.html)– also **camtasia.com** – easy to learn video recording and editing software. Not free.
* [**openshot.org**](http://openshot.org/)– free, open-source video editing software

**Example platform where you can host your video:**

* **YouTube**
* **Vevo**
* **MS Teams**
* **Google Drive**
* **One Drive**

You can use any other tool or software you like. There are plenty of suggestions online - <https://business.tutsplus.com/articles/best-screen-recording-capture-software-for-mac-2018--cms-31100>. The only thing to ensure is that the video is not restricted and can be viewed by all the tutors for moderation purposes.

**Peer Evaluation form**

Performance Related Adjustment

To make sure that everyone contributes fairly to the work of the team you are asked to evaluate yourself and each of your fellow team members. You will be sent a link to an online system to complete this closer to the submission deadline.

|  |  |  |
| --- | --- | --- |
| Team code | e.g. L1 | |
| Members | Names | Student Id |
| S1 (self) | Your Name… | Your ID… |
| S2 |  |  |
| S3 |  |  |
| S4 |  |  |
| S5 |  |  |
| S6 |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 5 | 4 | 3 | 2 | 1 |
| Outstanding | Very Good | Good | Poor | Very Poor |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Evaluation criteria** | Student Mark (5, 4, 3, 2 or 1) | | | | | |
|  | S1 | S2 | S3 | S4 | S5 | S6 |
| 1. Attends group meetings regularly and on time |  |  |  |  |  |  |
| 2. Contributes towards success of the project |  |  |  |  |  |  |
| 3. Completes assigned tasks on time & to quality |  |  |  |  |  |  |
| 4. Cooperative and supportive attitude towards team |  |  |  |  |  |  |
| 5. Listens and contributes meaningfully to discussions |  |  |  |  |  |  |
| **Total score (add rows 1 to 5 above)** |  |  |  |  |  |  |

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| Constructive feedback to explain any high or low marks awarded: |

The scores from each team member for each individual team member will be added up and then compared with the average score for the group (maximum score is 25).

Team mark awarded will then be adjusted for individuals based on their score.

\*\****Tutor can make final adjustments to the marks based on CW1 self-reflection and in class observations. Individual marks can only go up by max 10 marks on top of the team report mark***

Quality assurance of coursework specifications

Coursework specifications within CSI division go through internal (for new modules with 100% coursework also through external) moderation. This is to ensure high quality, consistency and appropriateness of the coursework as well as to share best practice within the CSI division.

Details of the moderators for this coursework specification are below:

|  |  |
| --- | --- |
| **Moderated (internal)** |  |
| **Moderated (CSI lead)** |  |
| **Signed off by (HoD)** |  |