**CSC2021 Advanced Programming using Android and C++**

**CSC2022 Games Programming using Android and C++**



**Project**

**Submission**

**Report**

This document will provide you with really important information on how your individual contribution will be determined.

At the end of what has hopefully been an educational and fun experience, albeit one that might also have been hectic or demanding, the final submission completes the project development within this phase of the module. The following section should be carefully scrutinised as it holds key questions and the information you provide will enable me to best assess your project.

Please provide team details below. Note, you should include your QUB email address (which might differ from the preferred email address used throughout the project).

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| Name | Student Number | QUB Email Address |
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Please provide details of what has been submitted

* If there are several different SVN solutions, which ones are part of your final submission?
* What are the controls for using your game?

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| What has been submitted? |
| [[Which project(s) should I assess as part of your submission]] |

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| What are the controls for you game? |
| [[How do I control your game – what are the controls]] |

If you have provided several different projects, e.g. the game, a level editor, etc., then please highlight everything I should run. Likewise, if you have different versions that demonstrate different aspects of your game (but it was not possible to integrate everything together) then please provide details here.

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| Are there any known bugs in your game? |
| [[Overview of any known bugs in the game]] |

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| Does your game contain any non-obvious features? |
| [[Overview of any non-obvious features]] |

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| How does your game map onto the assessment criteria? |
| [[Details of how your game maps onto the assessment criteria]] |

These are important questions that deserve some thought before they are completed. It is useful to tell me about known bugs as this helps me understand and avoid them while playing the game (which often means I can see/play more of the game). Telling me about the strengths of the game enables me to see how you have approached the game, and where you have decided to direct your time and effort (I can then focus my marking around these areas, i.e. I’ll not miss any aspect you feel is important). Finally, definitely tell me about non-obvious aspects, as I may not stumble upon hidden levels or special character moves requiring a particular key combination in normal testing unless you tell me about them!

Each project is marked out of 100 for which a total of 50 marks are distributed between three different categories, namely: Use of Input/Graphics/Sound, Extent of Game Features and Complexity of Game Algorithms (with each category having a minimum of 5 marks and a maximum of 25 marks). For your submitted project you can decide how the 50 marks are to be distributed between the three categories. Using this, you can tailor the assessment scheme to your project.

Note: If I believe that your mark distribution does not best match the strengths of your project then I will adjust the distribution as needed on your behalf.

Update the Use of Input/Graphics/Sound, Extent of Game Features and Complexity of Game Algorithms weightings in the table below such that each category has a minimum of 5 and a maximum of 25 marks and the **total** **marks** **across all categories sums to 100**.

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| **Assessment Topic** |  | Weighting (total 100 marks) |
| Professionalism | | Fixed 10 marks |
| Quality of Architectural Design | | Fixed 15 marks |
| Use of Input/Graphics/Sound | | **[5-25 marks]** |
| Extent of Game Features | | **[5-25 marks]** |
| Complexity of Game Algorithms | | **[5-25 marks]** |
| Coding Style and Code Quality | | Fixed 25 marks |

You should discuss the contribution and effort that each member has made towards the project. Following this you should then decide how the marks will be distributed within the project and record the team’s decision in the table shown below.

To help you complete this process, the entire team should sit down and complete the following two tables. To be fair to everyone in the team, it is of the upmost importance that the tables are honestly and accurately completed. To be blunt, someone who has provided a stronger contribution to the project should receive a greater mark as all the team members have benefitted from their contribution in terms of the final awarded mark.

Use the following scale to complete the table:

**Important:** the following table is not intended to be judgemental – for example someone might not have been able to contribute much time and effort to the project due to other commitments. Whilst this explains and justifies the situation, it remains important that the imbalance is still reported.

1. Less than average
2. A bit less than average
3. Average
4. A bit more than average
5. More than average

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| **Team member 1: [name here]** |  | Contribution |
| * Amount of time and effort applied throughout the project * Organisational (i.e. planning) and motivational contribution * Contribution to solve problems, develop complex code, remove bugs, etc. | | * **[value]** * **[value]** * **[value]** |
| **Team member 2: [name here]** | | Contribution |
| * Amount of time and effort applied throughout the project * Organisational (i.e. planning) and motivational contribution * Contribution to solve problems, develop complex code, remove bugs, etc. | | * **[value]** * **[value]** * **[value]** |
| **Team member 3: [name here]** | | Contribution |
| * Amount of time and effort applied throughout the project * Organisational (i.e. planning) and motivational contribution * Contribution to solve problems, develop complex code, remove bugs, etc. | | * **[value]** * **[value]** * **[value]** |
| **Team member 4: [name here]** | | Contribution |
| * Amount of time and effort applied throughout the project * Organisational (i.e. planning) and motivational contribution * Contribution to solve problems, develop complex code, remove bugs, etc. | | * **[value]** * **[value]** * **[value]** |
| **Team member 5: [name here]** | | Contribution |
| * Amount of time and effort applied throughout the project * Organisational (i.e. planning) and motivational contribution * Contribution to solve problems, develop complex code, remove bugs, etc. | | * **[value]** * **[value]** * **[value]** |

The table should provide a rough overview of contribution from each team member (although I stress it is a rough measurement).

On the next page the team must complete the table by listings all the .CS files contained within your project (including the size of the .CS file in Lines of Code (LOC)). Against each source file, the team must then agree the contribution of each team member to the ***design and development*** of that piece of source code. If needed, extend the table across multiple pages for large projects.

A fictitious example is provided below:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Source File | LOC | J.Blogs | S.Smith | P.Laverty | Z.Zhou |
| Game.cs | 258 | 40% | 10% | 20% | 30% |
| Player.cs | 105 | 0% | 40% | 0% | 60% |
| Level.cs | 145 | 60% | 40% | 0% | 0% |
| Collectable.cs | 56 | 0% | 0% | 0% | 100% |
| Splash.cs | 25 | 0% | 100% | 0% | 0% |

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| Source File | LOC | [Name] | [Name] | [Name] | [Name] | [Name] |
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With reference to the above two completed tables, the team should discuss and agree an overall contribution measure for each team member (as covered below).

**Important:** Not being able to come to a clear decision is a valid outcome. If this is the case then talk to me and we can arrange a team meeting where we can explore how the marks should be allocated. As part of the arbitration process I will meet with the entire team and go through all source files to identify the sections that each team member has developed. These sections will then be separately marked and an individual mark awarded.

**Important:** I also have a say in the peer distribution process. In particular, if it is very clear to me from meetings and my interaction with the team over the module that one individual contributed significantly more than other team members then I will require that the individual contribution is reflected in the peer assessment. I feel strongly that the peer assessment should be fair.

150 – Outstanding contribution

125 – Very strong contribution

110 – More than expected

105 – A bit more than expected

100 – As expected

95 – A bit less than expected

90 – Less than expected

75 – Weak contribution

50 – Very weak contribution

0 - No contribution

A percentage figure must be entered against each team member’s name. A value of 100 entails that the person contributed ***as expected by the team*** to the project. A value of more than 100 entails that the team felt the individual’s contribution is deserved of additional recognition (a value of 110-120 represents a notable additional contribution; a value of 120-125 represents a very significant additional contribution). A value of less than 100 entails that the team felt the individual did not contribute to the team as expected.

Note: In order to calculate each individual score (Si) from the team score (T) and the peer assessment scores (P1,...PN) where N is the number of team members, the following formula will be used:

For example, for a individual with a peer score of 110 (with other peer scores of 100, 100) and a team score of 68% will have a final score of = 110 / (1/3 \* (110+100+100)) \* 68% = 73%

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| **Team member** |  | Peer weighting |
| [insert team member name here] | | [insert weighting here] |
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Using the same scale as on the pervious page, provide weighting for those team members who attempted the C++ bonus challenge. If the team did not attempt the bonus challenge then please leave this section blank.

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| **Team member** |  | Peer weighting |
| [insert team member name here] | | [insert weighting here] |
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You must submit the following and must adhere to the instructions for submission:

* A completed version of this document – including mark distribution, peer distribution, project information and, most importantly, the completed declaration of academic integrity. If the declaration is not signed then your project **will not** be marked.
* Your project to include all source files used by your project along with all images, sounds, and other files needed for your project to run. It is your responsibility to ensure that all content needed to run your project is included.

You may submit the following (i.e. it is not compulsory that you submit the following):

* Any documentation (e.g. design documents, storyline, artwork development, etc.) and/or additional code (e.g. partial code fragments, non-working code, etc.) that didn’t make it into the final game.

Note that materials submitted after the hand-in date will not normally be considered unless prior permission has been granted for late submission.

**How the project must be submitted:**

You should:

* Ensure the latest version of the project is available on subversion and email any documentation, including this form, to P.Hanna@qub.ac.uk by 6pm on the submission deadline.
* [Optional] You may also wish to send me your project using a service such as QUB’s Dropbox (<https://dropbox.qub.ac.uk>).

To electronically complete the declaration shown below, enter your name, today’s date and within the ‘Declaration’ box type ‘I agree to the terms of the declaration’. For example, if I were to complete the declaration I would enter:

*Name Date Declaration*

*Philip Hanna 14/03/15 I agree to the terms of the declaration*

If this is a team project, then every member of the team must complete the declaration shown below:

Before completing the declaration below, check that the submission:

1. contains full acknowledgement of all secondary sources used (paper-based and electronic)

2. all code is original unless clearly referenced as otherwise

I declare that I have read the Queen's University regulations on plagiarism, and that the attached submission is original work unless clearly referenced as otherwise. I understand that my submission will be subject to an electronic test for plagiarism and will also be subject to the University regulations concerning late submission if received after the deadline.

***If the team has submitted a set of agreed peer contribution weightings***: I declare that the peer review process was conducted in accordance with the guidelines and the specified weightings provide an accurate assessment of individual contribution.

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| **Name** | Date | Declaration |
| [insert name here] | [date] | [insert declaration] |
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