**Faculty of Technology – Course work Specification 2018/19**

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| **Module name:** | | **Unity Mobile Games** | | | | | | |
| **Module code:** | | **IMAT2911** | | | | | | |
| **Title of the Assignment:** | | **Final Project Submission** | | | | | | |
| **This coursework item is:** (delete as appropriate) | | | |  | | | Summative | |
| **This summative coursework will be marked anonymously** | | | | | |  | | No |
| **The learning outcomes that are assessed by this coursework are:**   1. To create a *3D Unity Mobile Game*. 2. To be able to demonstrate this knowledge of *Unity* in relation to a wider context, for example evaluating the *Mobile Gaming* advantages/weaknesses of *Unity* in comparison with *Unreal*. | | | | | | | | |
| This coursework is: (delete as appropriate) | | | Individual | | | |  | |
| A *3D Mobile Game* will be submitted at the end of *Week 27*, created with *Unity.* | | | | | | | | |
| **This coursework constitutes** **100%** **to the overall module mark** | | | | | | | | |
| **Date Set:** | **January 21st 2019** | | | | | | | |
| **Date & Time Due:** | **April 5th 2019 at 15:00** | | | | | | | |
| **Your marked coursework and feedback will be available to you on:**  If for any reason this is not forthcoming by the due date your module leader will let you know why and when it can be expected. The student experience centre ([cem@dmu.ac.uk](mailto:cem@dmu.ac.uk)) should be informed of any issues relating to the return of marked coursework and feedback.  Note that you should normally receive feedback on your coursework by **no later than 20 University working days after the formal hand-in date,** provided that you have met the submission deadline. | | | | | May 1st 2019 | | | |
| **When completed you are required to submit your coursework to:**    A *Unity* executable and the .zip *Game Files* associated with the executable, should be submitted to Blackboard. A written report, submitted on *Turnit-In*.  **If you need any support or advice on completing this Coursework, please visit the Student Matters tab on the Faculty of Technology Blackboard page.** | | | | | | | | |
| **Late submission of coursework** **policy:** Late submissions will be processed in accordance with current University regulations which state:  *“the time period during which a student may submit a piece of work late without authorisation and have the work capped at 40% [50% at PG level] if passed is* ***14 calendar days****. Work submitted unauthorised more than 14 calendar days after the original submission date will receive a mark of 0%. These regulations apply to a student’s first attempt at coursework. Work submitted late without authorisation which constitutes reassessment of a previously failed piece of coursework will always receive a mark of 0%.”* | | | | | | | | |
| **Academic Offences and Bad Academic Practices:**  These include plagiarism, cheating, collusion, copying work and reuse of your own work, poor referencing or the passing off of somebody else's ideas as your own. If you are in any doubt about what constitutes an academic offence or bad academic practice you must check with your tutor. Further information and details of how DSU can support you, if needed, is available at:  <http://www.dmu.ac.uk/dmu-students/the-student-gateway/academic-support-office/academic-offences.aspx> and  <http://www.dmu.ac.uk/dmu-students/the-student-gateway/academic-support-office/bad-academic-practice.aspx> | | | | | | | | |
| **Tasks to be undertaken:**  The *Final Project Submission* will be a *Unity Mobile Game*, to be submitted on *Blackboard*. | | | | | | | | |
| **Deliverables to be submitted for assessment:**  *Unity* executable and a *.zip* file of the *Unity Game Files*, to be submitted on Blackboard.  A 1,000-word report, submitted in *Word* or as a *PDF* on *Turnit-in*. | | | | | | | | |
| **How the work will be marked:** Using the attached *Rubric* and returned electronically. | | | | | | | | |
| **Module leader/tutor name:** | | Dr. Simon Colreavy-Donnelly | | | | | | |
| **Contact details:** | | **simon.colreavy-donnelly@dmu.ac.uk** | | | | | | |

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|  | 0-30% | 0-39% | 40-49% | 50-59% | 60-69% | 70-100% |
| Effective use of *Navigation Techniques* | Did not submit. | No *Navigation Techniques*. | Some attempt to include *Navigation Techniques*, but incomplete implementation. | Overall decent *Navigation*, but a lack of originality, or generic implementation. | Good *Navigation*, however, a lack of innovation, or integration with *Mobile* format, prevented obtaining a higher mark. | Excellent use of *Navigation*. Excellent integration with *Mobile* format. |
| Interaction between *Advanced Techniques* | Did not submit. | No use of *Advanced Techniques*. | Some limited use of the *Advanced Techniques* (three). | Overall decent use of *Advanced Techniques* (at least three implemented effectively) | Good use *of Advanced Techniques* (at least three), but limited integration. | Excellent use of *Advanced Techniques*, including effective synthesis of *Techniques*, with vision outlined in report. |
| *Interaction* and *Collision* | Did not submit. | No *Interaction* or *Collision*. | Limited *Interaction* or *Collision*, or very rudimentary use *Interaction Events*. | Overall decent use of *Interaction* and *Collision*, but poor overall sense of immersion. | Good overall use of *Interaction* and *Collision* with some consideration of immersion. | Excellent use of *Interaction* and *Collision* and very immersive experience. |
| *C#* Code | Did not submit. | No use of *C#* Code, or did not compile. | Some attempt was made to follow the Code examples in Labs, no comments, or partially incomplete code. | A reasonable use of *C#* Code, but not much understanding outside what was done in Labs, or limited commenting. | Overall, a good use of *C#* Code, attempts at innovation, but minor consistency issues. | Excellent use of *C#* Code, with an effective use of comments and high-level of innovation. |
| Written Report | Did not submit/very limited report. | No clear vision or incorporation with the key themes of the Lectures. | A minor attempt was made by the student at streamlining their work with the objectives set, but not substantive enough. | A reasonable strategy and vision in terms of incorporating the key themes of the Lectures, but lacking cohesion and clarity of expression. | Overall, a good attempt was made, in terms of integrating the key themes with the student’s work and the Lectures, but minor grammar and/or expression problems. | Excellent report with good integration of the key themes of the Lectures and excellent use of grammar, formatting and clarity of expression. |

**Final Project Unity Mobile Games**

Course Tutor: Dr. Simon Colreavy-Donnelly

Course Code: IMAT2608

Assessment: 100% evaluated by the *Final Project Submission*. Note that your *Development Diary* (the notebook that you kept and updated in each of the *Labs*) should ultimately be incorporated into the *Final Project Submission*, but you include it in an edited format to show how you incorporated it in the *Final Submission*.

#*Italics* = *Keywords*

**CONTEXT:** In this course, we have learned about the design and implementation of a 3D over-the shoulder style Game using the *Unity Game Engine* for a mobile platform. As part of this, we looked at the unique considerations for *Development* of 3D Games with *Unity* and specifically games for mobile platforms that requires specific *Hardware* specifications and navigational components.

**THEMES**: During the *Lectures*, we were encouraged to start thinking about the *Genre* of *Game* that we want to implement in *Unity3D*. We had to prepare a narrative treatment for the *Game*. The outline of that narrative was structured around *Advanced Techniques* employed in *Game Development* for *Mobile*, namely concerning *Interaction Events*, *User* *Input* and *Navigation*.

These *Advanced Techniques* include:

* *Interaction* and *Collision*
* *Loading Levels* and *Level-Design*
* *Destroying Objects*
* *OnMouseEnter* and *Inputs*
* *Projectiles*
* *Camera Techniques* and *Lighting*

**PROJECT**: Your *Project* submission for this course will be a *3D Game* built on the template set out in the course**.** As part of the *Final Project Submission,* you should incorporate three *Advanced Techniques*.

The length of the *Game* is not as important as its implementation, in this context, but as a general guideline, it should be no longer than five minutes. Code used to create the *Game* should be included as part of the *Report* that accompanies the *Final Project Submission* and be suitably formatted and commented.

In addition to the demonstration, you should also submit a written report. The report should be between 1,000 words.

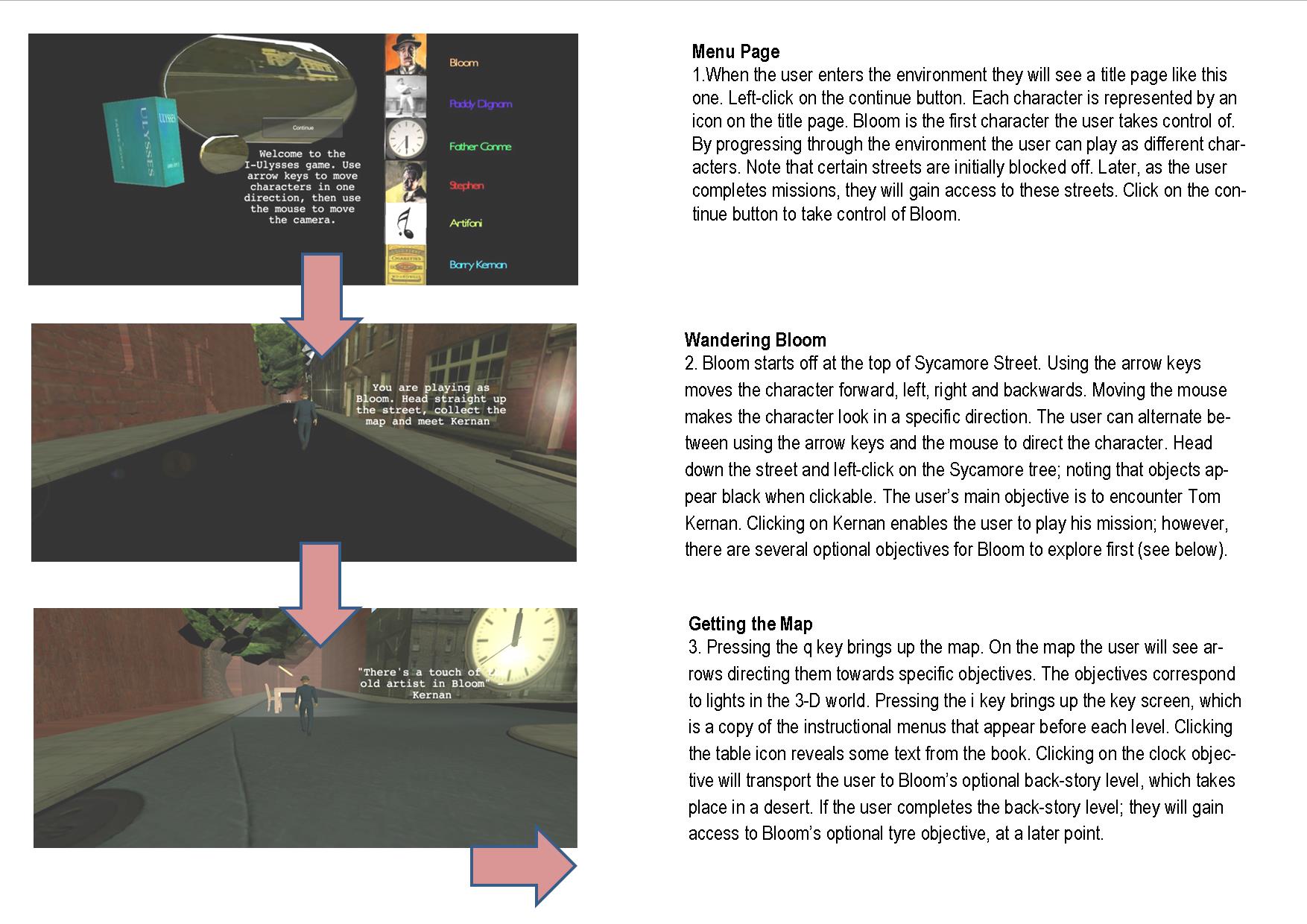
It should address the key themes of the course in the context of your *Game* and discuss how you developed your work. In particular, refer to other projects, or *Games* that have created similar narrative experiences as your own.

*Unity* is the course tool; however, you can use *3D Models* from other courses, or those from the *Unity Asset Store*, or *TurboSquid*,as part of your *Final Project Submission* (including *Apps*, such as *iTweens*).

**EXAMPLE:** In the following *Image* we can see an example taken from the *Game* we looked at in the Lectures; we can use this as an example to think about how we might structure our *Final* *Project* *Submission*. Here, the *User* makes an *Input*, then takes over as the main character Bloom. Bloom walks down the street using an over-the-shoulder *Navigation* *System* and can *Interact* withanumberof *Objectives.*

These *Objectives* can *Load New Levels* andaremarkedwith *Directional Lights.* In this short five-minute segment of the *Game*, it is possible to see how several of the *Advanced* *Techniques* are easily implemented.

Your report should be outlined like below (but doesn’t have to look exactly like this), so that it is easy to see the technical affordances of your *Game* lined up against the motivations for the *User* and the steps taken to implement these.

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