

# Faculty of Science Department of Computing and Networking Open-Book and Remote Assessment Cover Page

**Student Name: Dion Buckley** 

Student Number: C00220868

**Lecturer Name: Philip Bourke** 

**Module: Project II (Games)** 

Stage/Year: Final

Date: 02-05-2020

#### Declaration

This examination/assessment will be submitted using GitHub/Google Drive as the online submission tool. By submitting my examination/assessment to GitHub/Google Drive, I am declaring that this examination/assessment is my own work. I understand that I may be required to orally defend any of my answers, to the lecturer, at a given time after the examination/assessment has been completed, as outlined in the student regulations.

**N.B:** Due to college lockdown around the recent pandemic I have been unable to retrieve the signed supervisor logs with comments from the lab. I was advised to leave this note here and we are in the process of getting a digital signature delivered instead if possible. The local versions can be supplemented at a later date.



| Week Starting: | 07/10/2019 TO            | 13/10/2019 |
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| Student Name:  | Dion Buckley - C00220868 |            |

### Description of work completed since previous meeting

Notes: Also record project backlog, use notes page as required

This is the first official week of Project so last week contained no tasks. There was a full week of workshops and group activities as I am lucky enough to be part of the Erasmus+Project.

#### Tasks to be completed this week

Notes: record any additional tasks on the notes page as required.

| 1 | I pinged my Supervisor, Jo Kehoe, for our first 1:1 to get the ball rolling.  |
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| 2 | We had a great first hour where a specific research question was hammered out.  |
| 3 | I was asked to fix up my proposal to match the new and more focused direction.  |
| 4 | I was tasked with starting my research doc, since it is the main focus until Nov. 11th when it is due to be handed up.  |
| 5 | Overall this first session was really about finding a specific question and seeing if there is a way it can be clearly tested within the constraints upon us. |

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| Week Starting: | 14/10/2019 TO 20/10/2019 |
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| Student Name:  | Dion Buckley - C00220868 |

#### Description of work completed since previous meeting

Since the last meeting I managed to update the proposal doc quite a bit, thanks to the various feedback. It is now in quite good shape with only some minor adjustments to make this week. I also got a start on the research doc, setting up the skeleton and defining the most clear parts first (project intro & research question and study [layout of test]).

| 1 | As I didn't get into enough literature reading I was tasked with actually reading |
|---|---|
|   | one of a couple of these related papers   |
| 2 | I was tasked with updating the proposed research content part of my proposal      |
| 3 | I was tasked with re-writing my description because it actually reads too much    |
|   | like a bullet list, whereas it needs to flow more like a narrative.               |
| 4 | The day after the meeting I was tasked with taking some notes on the papers I     |
|   | read to help me identify them later (this means some re-reading now actually      |
|   | but will save me a lot of time in the future to remember this)                    |
| 5 | When it comes to the research doc this week I was tasked with first and           |
|   | foremost filling out the project milestone section - in an effort to keep me on   |
|   | track and help me identify when I am off track.                                   |
| 6 | I was tasked with transcribing the description from the proposal doc over to the  |
|   | research doc.   |

| <b>Supervisor Comments</b> |  |  |
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| Week Starting: | 21/10/2019 TO 27/10/2019 |
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| Student Name:  | Dion Buckley - C00220868 |
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### Description of work completed since previous meeting

Worked on bridging the narrative gap in parts of my research doc. Defined some terms and made clear my research question along with exactly how we are going to measure it. Also added some clarification to the proposal to show some of the possible gamified elements will be incorporated.

| 1 | Clearly define research question and way in which it will be measured |
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| 2 | Identify just one research paper to work on for this project          |
| 3 | Expand research document  |
| 4 | Update project milestones section to flow better                      |
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| <b>Supervisor Comments</b> |  |  |
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| Week Starting:        | 28/10/2019 TO 3/11/2019  |
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| Student Name:         | Dion Buckley - C00220868   |
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| <b>Description of</b> | work completed since previous meeting  |
|                       | this week. So no meeting on Monday here. Continued working remotely ne previous meeting, mentioned in last week's log. |
| Tasks to be con       | mpleted this week  |
| 1 Contin              | ue work from last week.  |
| 2                     | ue work from fast week.  |
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| Week Starting: | 4/11/2019 TO 10/11/2019  |
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| Student Name:  | Dion Buckley - C00220868 |

### Description of work completed since previous meeting

- Rewrite basically every section that had red lines lot of work here
- Redo the Milestones section to be much nicer and more accurate
- Finally picked a singular research paper and got started on Lit review for this

| 1 | No meeting this week - getting started on SRS and TDD |
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| 2 | Prepare one pager for animations for Daire            |
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| Week Starting: | 11/11/2019   | ТО       | 17/11/2019 |
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| Student Name:  | Dion Buckley | r - C002 | 220868     |

### Description of work completed since previous meeting

- Restarted my literature review, making sure to cover at first the abstract.
- Followed other remarks except that I quite like the milestones now so I did not change to landscape (if pressed can do this later though)
- Started writing out philosophical points for SRS
- Created a TDD skeleton

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| 1 | No meeting this monday as we switched to Fridays now with some small gap in |
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**Date** 

| Week Starting: | 18/11/2019 TO 24/11/2019                          |
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| Student Name:  | Dion Buckley - C00220868                          |
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|                | work completed since previous meeting             |
|                | vork as last section - meeting this friday        |
| • 2 days       | to work on things during this period post meeting |
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| Week Starting: | 25/11/2019     | ТО      | 01/12/2019 |
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| Student Name:  | Dion Buckley - | - C0022 | 20868      |

#### Description of work completed since previous meeting

As per supervisor comments as per last meeting I set to work as effective as I could to hammer out the SRS documents as we spent a little too much time on the research elements and there is a first code demo to be done on the week starting Dec 9. So I skipped past the philosophical sections for now and set to hammer out the technical sections, defining the application.

Three weeks after the last local Erasmus meeting there was another this Tuesday and there it was made quite clear to me what parts I was lacking in - before the meeting I prepared a really solid One Pager document for my animated videos idea from the very beginning of my entry to this project (my main interest since the beginning so important I saw it through to the end).

| 1 | One pager was really good - suggested to try a tool like Animaker to quickly  |
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|   | mock up an example explainer video to add to this for next week Erasmus local |
|   | meeting   |
| 2 | Go deeper on the application definitions, SRS needs more clear outlining so   |
|   | that code can be created from it  |
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| Week Starting: | 02/12/2019   | ТО     | 08/12/2019 |
|----------------|--------------|--------|------------|
| Student Name:  | Dion Buckley | - C002 | 220868     |

#### Description of work completed since previous meeting

Because of the Erasmus local meeting essentially being like a meeting with four supervisors at once I think myself and Joe didn't feel a pressing need to meet last week - being that very clear feedback has already been giving and we are meeting the Erasmus again This week since the deadlines are so close and I know what I need to do to get ready.

So between the two Erasmus meetings I created the Animaker video like I was suggested to and this really put an end for now to the work I needed to do in order to optimize the chance that my animated videos can be created by the media students within the time I will need them.

With that out of the way I set to hammering the SRS even further and sent it to all four related lecturers before the meeting allowing for them to read it pre-meeting.

### Tasks to be completed this week

| 1 | So I got some clear feedback even before the meeting - I need to provide more    |  |  |  |  |
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|   | detail in general - again the app should be able to implemented from the SRS     |  |  |  |  |
|   | alone - TDD not even important now   |  |  |  |  |
| 2 | If I am to produce one completed code feature at my demo next Tuesday then it    |  |  |  |  |
|   | should be something like the Gamified badges rather than the metric logger.      |  |  |  |  |
| 3 | Meet with Joe at least once before the meeting to sync up on current state and   |  |  |  |  |
|   | update logs that we missed because of Eramus meetings.                           |  |  |  |  |
| 4 | Have all the deliverables ready: Draft proposal, Draft Report up to the Study    |  |  |  |  |
|   | section complete, Draft SRS (fairly hammered out though), and Draft (mostly      |  |  |  |  |
|   | Skeleton) TDD, along with one completed code feature in a React Native App       |  |  |  |  |
|   | (React Native is an Erasmus+ requirement) AND a short two minute video of        |  |  |  |  |
|   | my work so far.  |  |  |  |  |
| 5 | Finally the demo will be in the form of a presentation so I should produce a set |  |  |  |  |
|   | of powerpoint slides to aid in my presentation.                                  |  |  |  |  |

### **Supervisor Comments**



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| Week Starting:                                 | 09/12/2019 TO 15/12/2019   |
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| Student Name:                                  | Dion Buckley - C00220868   |
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| Description of work co                         | ompleted since previous meeting                                    |
|  | eliverables along with interim presentation and demonstration      |
| video, delivered the pre-<br>valuable feedback | sentation to the best of my ability where I then received a lot of |
| Tasks to be completed                          | this week  |
| 1 Winter holidays                              | s for 3 weeks  |
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| Week(s) Starting: | 16/12/2019 TO 05/01/2020 |
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| Student Name:     | Dion Buckley - C00220868 |
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### Description of work completed since previous meeting

Personal experiences undertaken for majority of holiday. I did spend some time messing around with learning npm related setups as I was having a lot of annoyances with that before the break

### Tasks to be completed

| 1 | Get myself to Amsterdam first week of the new year for Erasmus+ week there |
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| Week(s) Starting: | 06/01/2020   | ТО       | 12/01/2019 |
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| Student Name:     | Dion Buckley | y - C002 | 220868     |

#### Description of work completed since previous meeting

Erasmus+ week in Amsterdam was fantastic. A lot of great designs produced by the Austrian students which helped me to visualise different elements of the project. For myself I also spoke to the Amsterdam students who are much further along in their React Native project and learned different tools and tips from them on the volatile framework. Also I worked hard to deliver my 'trivial' component for the week which feeds into my project which was the Video Player - the video player actually plays a video locally now which was prepared last year for this project and had been previously unused! I also used this chance to flesh out my app a little with a StackNavigator for different screens and learned much more about how a React Native app should be structured with components etc.

| rasks to be complete | sks to be complete | ed |
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| 1 | Sync up with everyone back in Carlow and aim towards next goal - Badge |
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| Week Starting: | 13/01/2019 TO 23/01/2020 |
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| Student Name:  | Dion Buckley - C00220868 |

#### Description of work completed since previous meeting

Continued learning about expo-av API so that I could learn and fix why my expo video player would not render the video part properly in certain component layout (app layout). This worked out well and the video player has a lot more weight to it now with asynchronous loading and playing.

Have just finished implementing an extra handling of the Android back button press (previously managed by the app stack navigator but this is not enough for my purposes) - so that I can stop the async playing of the video player, allowing backwards navigation from the new version of the video player component - this component is now very sturdy and fully completed (can still be made more efficient later).

Have also been researching the best way to implement the badge system with various packages and tutorials but there really isn't a clearly laid out path(the one really great package I found turned out to be for iOs: (. This is proving difficult so I may just have to design it from complete scratch, combining various components at my disposal OR build a different feature altogether.

| 1 | As mentioned above work on the feature to follow video needs to make some progress however I can make that happen. Really not easy but must get on with it. |
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| Week Starting: | 24/01/2020 TO 11/02/2020 |
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| Student Name:  | Dion Buckley - C00220868 |

#### Description of work completed since previous meeting

It's been a while since the last meeting with supervisor where I had printed logs. But we did meet since we looked over some of the work I was doing on badges. Between those difficulties (package being for iOs only) and due to in the meantime having agreed on delivering a new feature - we have had Erasmus+ meeting where it was also shown to me that badges are less important right now. All of this led to myself switching focus back to something I looked at in the beginning, i.e porting last yeras Quiz project from React js to React Native so it could be added as a component to the CeliApp which the Erasmus guys are preparing for March 1 challenge.

In brief I spent a huge amount of time then learning the inner workings of React serving application through .js and index files so that I could hope to load the Quiz through Webview locally (loading it online would work very easily but we want the application to be available offline and actually be responsive). However that did not pan out after a deep, deep dive so I pivoted to simply taking the code that is reusable (a fair amount) into my own project as a component, rewriting Native specific parts and making everything work (including the python Flask server with MariaDB server loading Questions from the google drive - all working)

| 1 | Figure out how the heck React Native is supposed to pass the array of questions  |
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|   | down to the Quiz component child AND render them there (compared to how it       |
|   | apparently just worked for Peter in React js last year) so that the quiz will be |
|   | working by next week!  |
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### Computer Games Development CW208 Project Meeting Notes Year IV

| Week Starting: | 12/02/2020 TO 25/02/2020 |
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| Student Name:  | Dion Buckley - C00220868 |

### Description of work completed since previous meeting

Began to mark clearly which parts of the native Quiz were my own and which were from last year.

Went further with integration of test but the bugs are too complex and ultimately this is wasting far too much time for the amount of produced content, so I did as much as I could and put a pin in that for now.

|                | d on making my app more complete by swapping out the boring buttons    |
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|                | election with touchable opacity, image thumbhan buttons and scroning   |
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| Week Starting: | 26/02/2020 TO 10/03/2020 |
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| Student Name:  | Dion Buckley - C00220868 |

| Student Name:              | Dion Buckley - C00220868   |
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| Description of work cor    | npleted since previous meeting                                     |
| -                          | ne Quiz after being unblocked by Erasmus team.                     |
| Managed to render out al   | l of the data pulled from the google drive on my react native app  |
|                            | , with working timer and randomized sets of 15 questions.          |
| 1                          | s only render all together as text, need to fix it up so that they |
| appear as separate button  | s, selectable.   |
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**Date** 

### Computer Games Development CW208 Project Meeting Notes Year IV

| Week Starting: | 11/03/20 TO 30/03/20     |
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| Student Name:  | Dion Buckley - C00220868 |

#### Description of work completed since previous meeting

Since previous meetings I have managed quite a lot with components for custom fonts for polish and animated coins for later use on badges.

Also I have completed the basic quiz with my own radio button, working scoring and native particles with a timer also, displaying score and number of right answers at the end currently.

| end currently.   |   |
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| The college clo  | osed down for the pandemic but since then I have met Joe twice, once  |
|                  | n and then for a proper meeting, tomorrow is the Presentation so I am |
| preparing that i |   |
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| Week Starting: | 31/03/20 TO 23/04/20     |
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| Student Name:  | Dion Buckley - C00220868 |

#### Description of work completed since previous meeting

Presentation went quite well with decent feedback to me while I was much more able to defend my app this time around as I had a lot more done since the Christmas demo. Since then I have worked to stylise the entire app with things like customized header across all screens, custom buttons allowing other fonts on the button and non ALL caps text on the buttons too, along with lining up all of the different elements on the screen, the addition of a splash screen devised to force a simple task of compliance early on in the app before overwhelming with areas to check out and the new licence free mascot also now on the welcome page.

Finally I have also created callbacks and allowing passing of props from the navigator all to allow me to share the score from the quiz back to the home and down into the new Coin screen, where finally the buttons here will be wired into bonuses for the app (and in the future external world)

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| Week Starting: | 24/04/20 TO 02/05/20     |
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| Student Name:  | Dion Buckley - C00220868 |

#### Description of work completed since previous meeting

Finished up everything left undone coming up to the deadline. Tonnes of features completed, tidy up / polish done and bugs fixed along with plenty of comments and all the rest.

Final presentation with video also prepared and delivered quite fantastic, next the code walkthrough and live demo completed and went well also.

Finally finishing up all documentation now until 03/05.

Project turned out to be a major success in my eyes and I believe that will be reflected in my final grade.

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