Personal R&D Work Log

Name: Justin Bishop
Student ID: 16920665

Total Hours Spent on the R&D Project: 307.22				Number of Logs: 102

Date	Hours	Difficulty with task (Easy / Moderate / Hard)	Objective / Activity	Personal Reflection Of Events During This Time
			SEMESTER 1	
			Week 1	
25/02/2019				
26/02/2019	3		Team meeting and R&D lecture	Created a timetable with the team to see what days/time would be best suitable for everyone (for meetings and team work). As well as attended the first R&D lecture which outlined majority of the activities and documents needed throughout the entirety of the paper
27/02/2019				
28/02/2019	0.6		Met the Mentor (Ahkbar) Meeting 1	Met our mentor (Ahkbar) for the first time. He gave us very helpful advice on how to be organised as a team and how to act/work in a professional manner
1/03/2019				
2/03/2019				
3/03/2019				
			Week 2	
4/03/2019				
5/03/2019	2.6		Team meeting (2) and R&D lecture	**Meeting** - Write up questions to ask the client during the upcoming meeting. **Lecture** - learn about what is needed in the project proposal, as well as how to effectively collaborate between team. Mentor, and client.
6/03/2019	2		Research Sonnar's existing apps	Downloaded some of Sonnar's current apps('bomb squad' and 'ambient sounds - Rain pack') and played them to see what kind of content and quality that is expected of us. As well as read through their website to understand some of their business goals and accomplishments
7/03/2019				
8/03/2019	1.12		Client meeting (Meeting 3)	Both our team and mentor met our client (Jarek Beksa) for the first time, he gave us an introduction to the company and it's background/goals. Jarek then showed us the device
9/03/2019				
10/03/2019				
			Week 3	
11/03/2019				
12/03/2019	4		Team meeting (4) and R&D lecture	Create an outline for all the documents needed for the project proposal, as well as a team agreement. The lecture outlined some of the methodologies that may be suitable for different types of projects and how you would go about choosing them.
13/03/2019	2.1		Research some methodologies	Researched which methodolgy would be best suited for our project - Kanban seems to be best as client knows what they want
14/03/2019				
15/03/2019	4		Team meeting (meeting 5)	Worked on the Project proposal document as a team, completing majority of the sections. The remaining sections were delegated to team members - I am required to complete the communications plan document.
16/03/2019	0.5		Background research on voice apps	Did some background research on voice applications - what the first implementation was, types of devices, and the rise in their popularity since their debut in 1981 (Techincally in 1911 - Radio Rex , the first voice activated toy).
17/03/2019				
			Week 4	
18/03/2019	1		Mentor meeting (meeting 6)	Showed our current version of the project proposal document and discussed on what areas need improvement.
19/03/2019	1		Client meeting (Meeting 7)	Client meeting to discuss what specific requirements are needed for the project.
20/03/2019	5		Create Communications management plan	Created the communications plan document for the upcoming project proposal, as well as review other documents within the proposal - checking for grammatical or spelling errors.
21/03/2019				
22/03/2019	1		Team meeting (meeting 8)	Late to the meeting, but managed to get a run down of the project proposal document, and the proposal presentation and what slides I am presenting.
23/03/2019				
24/03/2019	0.5		Edit presentation slide I am presenting	Made some grammar and spelling corrections to my slide, and practiced what to say.
			Week 5	
25/03/2019				
26/03/2019	2		Team meeting (meeting 9)	Team meeting to practice for the upcoming project proposal presentation and printed out all the project proposal documents for the moderator and mentor.
27/03/2019	1		Project proposal presentation	Presented our project proposal to our project mentor and moderator
28/03/2019				
29/03/2019	2		Revise lecture slides	Look back at lecture slides from week 1 - week 5 to ensure no extra documents are needed.
30/03/2019				
31/03/2019				
			Week 6	
1/04/2019				
2/04/2019	3		Client meeting (meeting 10) and R&D lecture	Client meeting - We met with the client in hopes of meeting the programming team, but unfortunately the programmers weren't able to attend. We instead went over some of the flow diagrams and UI designs of the current Alexa app version and discussed the opportunity for usability testing. Lecture - Addressing conflict.
3/04/2019				
4/04/2019				
5/04/2019	0.5		Team meeting (meeting 11)	Late to meeting but we discussed some of the programming languages we will need to upskill in, in order to develop a Google app. We will need to start upskilling with Actions on Google and find out more in-depth knowledge of voice applications
6/04/2019	4		Upskill videos and tutorials	Watch tutorial videos on Google Actions via the Udemy website. Followed the steps of the tutorials to create a basic calculation app with Google Actions
7/04/2019				
			Week 7	
8/04/2019				
9/04/2019	2		Lecture	lecture focused on teaching how to improve client and mentor meetings by being prepared and improving project deliverables.
10/04/2019				
11/04/2019				
12/04/2019	0.6		Mentor meeting (meeting 13)	Meeting with Mentor to discuss current project situation and what we should do next. Advised to upskill greatly over the break to begin product development as soon as we get back
13/04/2019	3		Begin learning about Jovo framework	Use Udemy to begin learning about the Jovo framework - A framework that allows developers to develop for both Alexa and Google. Started setting up/installing the software needed for jovo development (Jovo-CLI, Jovo-Framework, Node.js)
14/04/2019				
			Mid sem 1 break -start-	
15/04/2019				
16/04/2019				
17/04/2019	2		Upskilling	Learn how to use the Jovo framework to create a basic greeting voice application - with online Udemy courses and Jovo's official website
18/04/2019	3		Upskilling	Learn how to direct the flow of the conversation with Jovo with States and intents - with online Udemy courses and Jovo's official website
19/04/2019	2		Upskilling	Learn about the integration of LibriVox and how to access their database that is needed for retrieving Books for our app.
20/04/2019	4		Upskilling	Learn about the different data types that are used in Jovo Projects - Request data, Session Data, User data, and App data.
21/04/2019	6		Upskilling and fixing computer	Created some basic applications with Jovo framework. However, while installing packages needed for further Jovo practice, my computer was consistantly crashing. After completely reinstalling windows the issue remained, the issue was instead a faulty RAM card which needed replacing. I lost a lot of my work due to the reinstallation of windows.
22/04/2019	4		Upskilling	Re-created some of the applications I previously created with the Jovo framework before the wipe. While this was a set back, it did help to strengthen my understanding of developing a voice app.
23/04/2019				
24/04/2019				
25/04/2019	4		Upskilling	Attempted to create some Jovo Applications without looking at the notes to see where I needed more practice in. My syntax knowledge was quite limited and found that to be my weakest point, I was not putting commas where needed and was trying to access variables which didnt exist (due to misspelling of variables resulting in a new uninitialized one being created)
26/04/2019				
27/04/2019				

Date	Hours		Task	Description
27/04/2019				
28/04/2019				
Mid sem 1 break -end-				
Week 8				
29/04/2019				
30/04/2019	1		Project cancelled	Found out or project to create the book reading app has been cancelled due to time constraints (The clients development team Started and Finished the project while we were upskilling during the break).
1/05/2019				
2/05/2019				
3/05/2019	2		Lecture revision	Review lectures from week 5 - 7 for any upcoming deliverables
4/05/2019	3		Upskilling	Did some upskilling in Javascript syntax, as that is the language model used for Jovo
5/05/2019				
Week 9				
6/05/2019				
7/05/2019	2		Lecture	Discussion about mid project review requirements
8/05/2019	1		Lecture revision	Revise yesterday's lecture to find out what is needed for the mid-project review.
9/05/2019				
10/05/2019	1		Client meeting (meeting 14)	Discuss new project ideas with the Jarek - can choose between expanding current applications they have, creating a standalone 'memory game', and interactive story driven game, or a labyrinth like game. Discuss whether to split the team to create 2 apps at once, or create 1 app on both Alexa and Google platform
11/05/2019				
12/05/2019	4		Team meeting (meeting 15)	Review the old project proposal and change it to accommodate our new project.
Week 10				
13/05/2019				
14/05/2019	2.8		Client & team meeting (meeting 16 & 17)	
15/05/2019				
16/05/2019				
17/05/2019	2.6		Team meeting (meeting 18)	This meeting was to discuss the wireframe layout (UI) of the new project and to begin work on the mid-term status report. After creating the mid term status report we then assigned each team member to a certain part. I will be working on the Details and Approach section.
18/05/2019	4		Change management document work	Worked on the Details and Approach section of the change management plan, and checked for any spelling and grammar issues in the new project proposal document
19/05/2019	1		Change management document work	Proof read the change management document.
Week 11				
20/05/2019				
21/05/2019	4.5		Team meeting (meeting 19)	Team meeting over discord to work on the mid term status report.
22/05/2019				
23/05/2019	2		Read over Status report	Proofread the status report and made changes to spelling and grammar issues, as well as formatted the report to make it easier to read.
24/05/2019	1		Revise lectures	Revise lectures 8 - 11 to ensure nothing has been missed.
25/05/2019				
26/05/2019				
Week 12				
27/05/2019				
28/05/2019				
29/05/2019				
30/05/2019	0.5		Mentor meeting (meeting 20)	Meeting with Ahkbar to discuss what we need to include in the mid project review and what we can expect
31/05/2019				
1/06/2019	1		Work on mid project review	
2/06/2019				
Week 13				
3/06/2019				
4/06/2019	3		Upskilling	Look at Jovo's option for database integrations for the google platform
5/06/2019				
6/06/2019	2		work on Memory game (google)	Started working on the Google version of our memory game. Started by adding a contextual help function which would give the user some help depening on which state they're in within the app. As well as adding some synonyms to the json file to broaden user vocabulary range.
7/06/2019				
8/06/2019	0.2		Push work to github	Pushed my work to github.
9/06/2019	4		Team meeting (meeting 21) and self work	Discord meeting to finish the Mid-Term review deliverables. Spent time after the meeting to polish the document and presentation - fixing any grammar and spelling errors, and expanding on points that were not explained in-depth enough.
EXAM WEEK				
10/06/2019	1		Mid-Term Review	Presented the current Alexa version of our game, was not able to show the Google version yet as It was not in a presentable state.
11/06/2019				
12/06/2019				
13/06/2019				
14/06/2019				
15/06/2019				
16/06/2019				
END OF SEMESTER 1				
17/06/2019				
18/06/2019				
19/06/2019				
20/06/2019				
21/06/2019	1		work on Memory game (google)	Worked on the Memory game - Added global variables that would be needed for the in-game state, and an intent in the JSON file that allows the user to return to the menu.
22/06/2019	2		Upskilling	Get a better understanding on the different types of Intent Redirects within the Jovo framework - By reading the Jovo Docs on the official Jovo website
23/06/2019				
24/06/2019	4		Review Part 2 R&D deliverables	Look at all the Notes directed at part 2 students in lecture notes from week 1 - 12 to see what documents will be needed for next semester
25/06/2019	1			
26/06/2019				
27/06/2019	2		work on Memory game (google)	
28/06/2019				
29/06/2019				
30/06/2019				
1/07/2019				
2/07/2019				
3/07/2019	4		work on Memory game (google)	Worked on the menu selection state that controls where the user is routed to upon choosing a menu option, as well as adding animal constants that hold the audio file of the respective animal.
4/07/2019				

Date	Hours		Task	Description
4/07/2019				
5/07/2019				
6/07/2019				
7/07/2019	3		work on Memory game (google)	review code and tidy it up a bit for better readibility, add comments on what every line of code is doing and what needs to be re-worked.
8/07/2019				
9/07/2019				
10/07/2019				
11/07/2019	6		Push work to github and work on Memory game with Nikkolas	Pushed the work I've done to github and started a discord call with Nikkolas to progress on the game - moved animal constants outside of play intent, added level constants, comments describing all states, and added play, exit, rank, and help intents
12/07/2019				
13/07/2019				
14/07/2019				
			SEMESTER 2	
			Week 1	
15/07/2019				
16/07/2019				
17/07/2019	5		Team meeting (22) and work on Memory game	Team meeting to discuss the current version of Alexa and Google version of the games and what deliverables are needed for part 2. Started a call with Nikkolas to work on the google version - completing the entire base functionality of the game.
18/07/2019				
19/07/2019	2		Upskilling	Read up about implementing lambda functions and testing on different devices - done through the Jovo documentation on the Jovo website
20/07/2019	1		Create AWS account for game	Created my AWS account
21/07/2019	2		Test AWS with jovo practice apps	Import some of my practice Jovo apps into a lambda function from which I can test them without running the app localy
			Week 2	
22/07/2019				
23/07/2019				
24/07/2019	4		work on Memory game (google)	Started a discord call with Nikkolas to add more functionality to the game - methods that: check if the user has won all the rounds, informs the user on incorrect matches, and checks if the user has selected the same box twice in an attempt to cheat.
25/07/2019	2		Client meeting (23)	Client meeting to show the current version of each application and see what needs changing/improving. Changes such as removing level selection, score calculations, and the overall flow of the game/app. As well as get ideas from a current work in progress game that Sonnar is developing
26/07/2019				
27/07/2019	1		Upskilling	Look into the changes needed to be made for moving from a local file saving system into a cloud database system hosted by AWS to save user data.
28/07/2019				
			Week 3	
29/07/2019	3		Mentor & team meeting (24 & 25)	Mentor meeting - discuss what deliverables will be needed from us this semester. Team meeting - Create a new UML diagram for Jarek for the next client meeting this week.
30/07/2019				
31/07/2019				
1/08/2019	1		Client meeting (26)	Client meeting to discuss new flow diagrams and what needs to be revised within it. Other topics being discussed: user-friendly game flow, pros and cons of Jovo framework, implementation of high score feature, how to avoid getting stuck in a dialog loop, and user fallback (better to exit the game if the user input is unhandled too many times
2/08/2019				
3/08/2019	2		Lecture revision	Revise lectures 1 - 3 for this semester to ensure any necessary deliverables have not gone unnoticed
4/08/2019				
			Week 4	
5/08/2019				
6/08/2019				
7/08/2019				
8/08/2019				
9/08/2019				
10/08/2019				
11/08/2019				
			Week 5	
12/08/2019				
13/08/2019				
14/08/2019				
15/08/2019				
16/08/2019				
17/08/2019				
18/08/2019	6		work on Memory game (google)	Started a discord call with Nikkolas to work on the app - added a more dynamic prompt that would take into account the amount of times the user has played the game, added state constants to better keep track of the game flow, added more synonyms to the JSON file, removal of several selections (name, level etc), added user-fallback. We were constantly hitting bugs throughout this process but overcame them in a relatively short time.
			Week 6	
19/08/2019				
20/08/2019				
21/08/2019	2		Lecture	This weeks lecture focused on how to address conflicts within the group, similar to last semester. However the lecturer also talked about the reflective report and told us how approaching conflicts as critical incidents can allow us to gain greater marks if they are addressed correctly.
22/08/2019	3		work on Memory game (google)	Create a win state for when the user wins the game, however I was not able to reach this new function as I couldn't win the final round as the game would crash before I could reach it.
23/08/2019	2		work on Memory game (google)	After some time of searching I found that the error causing the game to crash was due to a uninitialized variable being called. The variable that I was trying to access did exist, however due to a misspell a new empty variable was created and called, causing the game to crash. While this was incredibly frustrating it did help me to realise that I was doing this mistake often, so I've now began the practice of finding the variable I want and copy and pasting it - rather than typing it out manually.
24/08/2019				
25/08/2019				
			Week 7	
26/08/2019				
27/08/2019				
28/08/2019				
29/08/2019	2.3		Mentor & team meeting (27 & 28) and Lecture	Mentor meeting - Discuss progress on google and Alexa version, and talk about the poster presentation. Team meeting - Discuss what needs to be prioritised over the break in order to get the game in a finished/presentable state.
30/08/2019				
31/08/2019				
1/09/2019				
			Mid sem 2 break -start-	
2/09/2019				
3/09/2019				
4/09/2019	3		Upskilling	Watch youtube video tutorials on how to migrate to DynamoDB from the local file base system
5/09/2019				
6/09/2019	4		Upskilling and preparation for database migration	Practice migrating to DynamoDB with test apps I have created with Jovo to get a better understanding of it before working on the actual memory game version.
7/09/2019				
8/09/2019	1		Set up database	Prepare the database for the google version migration

Date	Hours		Task	Description
9/09/2019				
10/09/2019	5		work on Memory game (google)	Migrate the google memory game version to the DynamoDB - Kept getting error saying the database was not defined so was not able to migrate successfully
11/09/2019	4		work on Memory game (google)	After a scrutinous examination of the code, the issue causing the 'undefined database' was due to a letter being Uppercase rather than Lowercase, once this issue was addressed the migration worked perfectly.
12/09/2019				
13/09/2019	2		work on Memory game (google)	Began working on the Visual output component on the Google Home version, however more upskilling in this area may be needed as it seems extremely limited from my current understanding of it.
14/09/2019				
15/09/2019	4		work on Memory game (google)	Started a discord call with Nikkolas to work on the app - pushed work done to Github and explained the changes made to the code for the Database migration. Fixed some issues with the flow that caused the game to crash, and added the new score calculation to the game.
Mid sem 2 break -end-				
Week 8				
16/09/2019				
17/09/2019				
18/09/2019	2		lecture	This weeks lecture focused on the handover process that we will have to go through at the end of this semester. The lecture outlines so important factors to ensure a smooth and successful handover.
19/09/2019				
20/09/2019	6		work on Memory game (google)	Created a method for calculating the user's score and methods to save the highscore to the database, and retrieve it from the database. While trying to create an interactable UI I was getting an error when running the app through the Lambda function as it was not able to recognise the Google UI function calls, this resulted in having to run the app locally as opposed to running it through the lambda function.
21/09/2019	5		work on Memory game (google)	Researched different ways on designing an interactive visual output on both the Jovo website and Google developers official documentation, however the only option that seems possible is by either using Lists, or Carousels that implement Option Items - can only use 1 at a given time. However these options aren't too desireable as they are not customizable, which greatly restricts our options for Visual output for the Google Home surfaces.
22/09/2019	5		work on Memory game (google)	After briefing Nikkolas of these restrictions I was told to go ahead anyway and create the UI using Lists as Carousels are limited to only 10 items. However this was unexpectedly hard as when lists were added to the app, user input was completely ignored and registering as empty input, which would result in the unhandled intent being called.
Week 9				
23/09/2019				
24/09/2019				
25/09/2019	6		work on Memory game (google) and push work to Github	Added more functionality to the game by creating a back to menu option and reset option for the user while in-game. These options would prompt the user to ensure if they want to go back as they will lose any progress made. I also created a show answer method that would show us the answers for each round (cheats) to allow us to advance through each round rapidly for testing purposes - This helped to expose bugs that were present at the end game state when the user would complete the game. This work was then pushed to Github.
26/09/2019				
27/09/2019	5		work on Memory game (google)	After debugging and reading Jovo's Visual output and Google Assistant documentation, I was able to identify the issue causing the input to be ignored, after implementing a Element Selction intent I was able to choose from the lists via voice, keyboard, or touch as desired. While this was a good break through, I was now left with the issue of optimising the code while keeping it in a working state to show the client next week.
28/09/2019				
29/09/2019	2		work on Memory game (google)	Some improvements made to the code where I could re-use intents within the Element Selection intent - Greatly reducing the amount of redundent code being created to make the list selection work.
Week 10				
30/09/2019	4		work on Memory game (google)	Created a debugging function that would display the answers in the UI instead of the console, allowing for faster and more effective debugging. Also added box images and animal images to the visual output. These additions did greatly increase the amount of repetitive code as I was not able to find any iterative work-around that would help to greatly condense the amount of code.
1/10/2019				
2/10/2019	2		work on Memory game (google)	Started a discord call with Nikkolas to show some of the changes made to the flow and give him a rundown on some of the issues around the limited Visual output for the
3/10/2019	4.1		Client and team meeting (29 & 30)	**Client meeting** - Showed the current state of the Alexa version, was also wanting to show the Google version but Google servers were down so we were not able to. We did however explain to Jarek that there is some limitations to Google Home's Visual output where we are limited to scrollable Lists and carousels - we cannot partition the screen as desired for user interaction. **Team meeting** - Started working on the team portfolio website by creating a foundation from which we can work from. I also started work on the executive summary, was unsure on what exactly needs to be in it however.
4/10/2019				
5/10/2019				
6/10/2019	2		Work on Executive summary	After carefully reading the announcement for the executive summary I realised exactly what needed to be in it, from there I was able to complete it.
Week 11				
7/10/2019				
8/10/2019				
9/10/2019	5		Team meeting (31) and lecture	**Team meeting** - Review the Executive summary as a team to ensure we are all happy with it before submitting it, some minor grammar changes were made before submitting it. We then continued to work on the team portfolio and started creating a framework for the poster which we will get the Client to look at to get some feedback. **Lecture -** The lecture outlined some important features of the poster and gave some previous year examples to help give us an idea of what is considered good and bad.
10/10/2019				
11/10/2019				
12/10/2019				
13/10/2019				
Week 12				
14/10/2019	1.1		Client meeting (33)	Met with Jarek to discuss some of the changes to be made for both Alex and Google version, and some tips and advice for the project poster and portfolio.
15/10/2019				
16/10/2019	3.6		Team meeting (34)	Team meeting to finish the draft version of the project poster - all fields filled out and a layout/colour design decided upon. The final draft version then sent to the Client and Mentor for feedback.
17/10/2019				
18/10/2019	1		Examine the refletive report	Look at the requirements of the refletive report and plan and the project portfolio
19/10/2019				
20/10/2019				
Week 13				
21/10/2019	3.5		Team meeting (36)	Polish the final version of the poster and make the changes according to the feedback we got from both the client and mentor
22/10/2019	3		Start Reflective report	Create the framework of the report, giving brief outlines of what is needed to be discussed within each section
23/10/2019	6		Work on Reflective report	Write the Executive summary and Introduction of the reflective report
24/10/2019	4		Poster presentation!	Set up and Presented the Poster and product to markers and others
25/10/2019	1.5		Team meeting (37)	Team meeting to work on the team portfolio and delegate sections to each team member.
26/10/2019	6		Work on Reflective report	Work on the link between theory and practice section of the report.
27/10/2019	10		Work on Reflective report and project portfolio	Work on the main body of the Reflective report and work on development tab of the project portfolio
EXAM and final week to finish R&D work				
28/10/2019	6		Work on Reflective report	Work on the Summary and conclusion of report
29/10/2019	10		Work on Reflective report and project portfolio	Add client feedback from to project portfolio and continue working on the reflective report
30/10/2019	5		Work on Reflective report and project portfolio	Finish work on Both the reflective report and project portfolio - submit the project portfolio with team
31/10/2019				
FIN				