Assignment Part 1

OUA Building IT Systems (CPT111)
SP2, 2019

Alphabet, Esq.

by

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1. What

1.1. Project Name

BotFly On The Wall

1.2. Project Description

BotFly On the Wall is a project to create a Discord bot that aims to help students/groups of people working towards a similar academic goal via a Discord server. Our bot will include various functions to motivate individuals to work together more efficiently, such as:

- a tracker that will count the total amount of messages a user has sent in a particular chat channel
- reminder notifications for schedule group meetings
- and periodical notifications for a specific user, to remind them to check in.

BotFly On the Wall will have other helpful features such as:

- returning the day and date when prompted,
- the amount of time until the next deadline,
- and will also be able to export chat history of different channels on the server.

As extended features it will have:

- the ability to count the messages/participation of a server member and create a leaderboard. This may be helpful in groups where like-minded people come together to practice a second language, where fear of mistakes can keep people quiet, but practice is the best way forward.
- a simple tracker that can score participation, which may be useful in future university projects to create an evidentiary log of where some students ‘go dark’ during group projects.

1.3. The Team

Alexander Blanchard

Student Email Address: s3775643@student.rmit.edu.au
Your Locale: Melbourne, Australia

Background & Passion in IT:

I have mixed experience, having worked in paid and unpaid capacities in fields of design, advertising, education, and disability advocacy. I have always had a passion for the use and engagement of I.T., following emerging technologies, and being involved in theoretical and philosophical dialogue about its implications.

What are you good at / What you’re interested in?

I am primarily concerned with how humans cooperate, with particular regard to factors affecting participation. I am engaged with community development, and have extensive skills around mediation, facilitation, conflict resolution, and group planning.

What are your weak-point in the context of the project?

I have varied obligations that permit him limited time to access project work. As such, it will remain a challenge for me to update myself with the team's progress, and be responsive to changing needs.

What role do you see yourself mainly playing in the team?

I can play a significant role in supporting aspects of the project relating to user experience for the product, and while in development, can assist with decision-making apparatus and process.

Casey Edwards

Student Email Address: s3776107@student.rmit.edu.au
Your Locale: Melbourne, Australia

Background & Passion in IT:

Back when I was quite young (about 15) I think I really started to get a grasp on my passion for IT related things. This passion came from coding very basic programs in Visual Basic in high school and extended through until after that into doing other things such as modifying video games using scripting and and basic file editing.

While I do not have a specific background in IT professionally my personal passion for IT comes from my past personal experience with coding, and computer hardware components.

This really kicked off when I built my first PC from scratch and I think from them my passion has just remained.

What are you good at / What you're interested in?

I have three main interests when it comes to IT. The first and foremost is my passion for gaming and making video games.

The second is the building and programming of apps and programs that can assist those with disabilities including both mental and physical disabilities.

And lastly I would love to create and manage servers. The things I am best at though at this time would be my capacity for learning IT related materials such as coding.

What are your weak-point in the context of the project?

Having joined the group late I have the unfortunate weakness of being behind on the current progress of the project. Otherwise, I believe my

other weaknesses include my mental health as I suffer from a number of mental illnesses including severe social anxiety.

In regard to the specific project details I have never looked at JavaScript as a coding language and this will be something I will have to learn and look at so that I can contribute a fair amount to the project.

What role do you see yourself mainly playing in the team?

I see myself as someone who can and is willing to learn code associated with the project and I am hopeful I can claim my position as someone who will be able to help with coding and contributing to the final project product.

Christopher Crawford

Student Email Address: s3753150@student.rmit.edu.au
Your Locale: Brisbane, Australia

Background & Passion in IT:

My background in IT began three years ago, it was something unexpected as it was not an industry, I ever thought of entering. I was studying history at the time whilst working for an ISP in their customer service department. During my time with the ISP, I got well acquainted with the Technical team so began my journey into IT.

From that point, I could not get enough and really threw myself into the industry. Within six months, I had completed the CompTIA Network + and joined the Network Operations team as a junior Network Analyst. I then moved back from the U.K to Australia and moved from Network Support/Administration to Enterprise IT support. Now, I am currently contracting for various Government departments and mainly doing Level 2/3 Desktop/Server support. The reason for undertaking my degree is to better my knowledge in the industry and to reach the goal of System/Network Administrator within the next two years.

My true passion in IT is Networking and is an area, I want to increase my knowledge. Programming is another element I would like to add as it will be essential to roles, I do in the future.

What are you good at / What you're interested in?

Networking is certainly my greatest strength and is something I really enjoy. I have extensive experience in hardware, software and operating system support.

As stated before, I really enjoy networking and I have also taken an interest in programming. My interest in programming is mainly aimed at developing my scripting skills to help with my current area of work.

What are your weak-point in the context of the project?

I joined the group late and therefore it will take some time to adjust to my position within the group. This adjustment period is perhaps an added stress to an already growing list of stressors to the project. I will obviously do my best to mitigate these stressors.

Programming is an obvious weakness of mine as I have had little exposure. I have completed ITP and currently undertaking Programming 1. I have little exposure to the development side of Discord, but hopefully I will get the chance to familiarise myself with these tools.

What role do you see yourself mainly playing in the team?

As I have joined the team late, I believe flexibility will be the strongest asset I can add to the group. Roles have been defined and I am happy to fit or cover wherever needed. The other area which may add some value is my understanding of IT systems and industry experience.

Dylan Currie

Student Email Address: s3793998@student.rmit.edu.au
Your Locale: Rural South Australia

Background & Passion in IT:

I was born in East Gippsland, Victoria, where I lived until age 12. Currently I live on the Eyre Peninsula in South Australia. I have two years of IT work experience, having previously worked as an IT technician for a government agency. During this time, I completed a Certificate III in Information, Digital Media and Technology, along with a Diploma in Leadership and Management. I'm now studying with RMIT as an undergraduate student, completing a Bachelor of Information Technology.

My extensive interest in information technology started at a very young age, having grown up with a father who built computers and created digital games. Throughout my childhood, I was surrounded by family and friends who actively used information technology in unique ways for a variety of different purposes, nurturing my interest in the area. I began coding myself at age 9, starting with basic batch scripts before moving to C/C++ at around 13. In current times, I'm familiar with variety of coding languages; having coded both websites using HTML and small applications using C, C++ and more recently, java.

What are you good at / What you're interested in?

I have a strong interest in information technology, particularly in the areas of hardware, automation and machine learning. I have some experience coding using a variety of different languages, often creating unique solutions to various coding challenges.

I have some experience relating to management and professional documentation standards, having previously completed a diploma in leadership and management. These skills may prove beneficial in both the planning, documentation and risk assessment stages of this project.

What are your weak-point in the context of the project?

I'm not familiar with discord.js, though believe this won't be an issue if there's adequate documentation available.

What role do you see yourself mainly playing in the team?

With regards to my previous studies, I may be well suited to a second in charge position. I will likely play a large role in the completion of risk assessments, creation of documentation and general management needs of the team. I plan to support the team and ensure all members are on track to complete assigned tasks, assisting as required.

At later stages of the project, I will play more of a software developer role. Using my previous coding experience, I will assist in the coding, debugging and testing portions of the project. I will bring valuable troubleshooting and problem solving skills to the team.

Ely Hawkins

Student Email Address: s3754457@student.rmit.edu.au
Your Locale: Melbourne, Australia

Background & Passion in IT:

I am currently studying a Bachelors degree in IT through Open Universities. Since I was young I have always been interested in computers, specifically gaming which has led to an interest and desire to work in the field of programming.

What are you good at / What you're interested in?

- Picked up programming quickly
- Calm and relaxed under pressure
- Can work individually or in a team
- Interested in programming (specifically game design)

What are your weak-point in the context of the project?

- Can be too casual/unorganised about things
- Very limited experience in IT having only completed a couple of units so far and having no prior study.
- No previous experience making bots or coding in JavaScript.
- Very non-confrontational.

What role do you see yourself mainly playing in the team?

- I am a good team player. Competent at programming (in Java) and happy to do jobs others may not want to do.

Melanie Broersen

Student Email Address: s3611357@student.rmit.edu.au
Your Locale: Shepparton, Australia

Background & Passion in IT:

I have previously studied certificate III/IV in IT Networking at TAFE, however was unable to finish the course due to unforeseen circumstances. I have had a passion for IT since year 11 VCE when I first took an IT class and realised I was good at something that I also enjoyed. I am halfway through my IT Bachelor course, and looking forward to challenging myself with this unit.

What are you good at / What you're interested in?

- Quick learner.
- Organised.
- Good attention to detail.
- Interested in learning website coding and design.
- Interested in learning how to use many different platforms and programs during this course.

What are your weak-point in the context of the project?

- Imagination is very limited, coming up with names and ideas from scratch is extremely difficult.
- I struggle with writing in general. It takes me much longer to find the right words and put them altogether than most.
- No experience with discord.js, GitHub, or Trello boards.

What role do you see yourself mainly playing in the team?

I may not be an ideas man, but I am good at expanding on and perfecting others' ideas. I am also quite good at coding when I get the hang of a language, with which I can contribute in later stages of the project.

1.4. Demonstrable Outcomes

Problem to solve:

Our bot will serve as a solution to the lack of participation and activity statistics on the communication application Discord. Our bot will have functionality for connecting to existing Discord servers, responding to text commands and various useful features. These features will prove helpful for university students who use Discord and require evidence for participation marks.

1.4.1. Minimum Viable Features

1.4.1.1. **Feature 1:**

Can be imported and connected to any discord server. Bot shows in chat sidebar as being active/online.

Validation Test:

Set up 3 separate servers and test it uploads correctly. Document steps required for connection, so instructors can independently test the outcome.

1.4.1.2. **Feature 2:**

Respond to prompts. Create 2 **!prompts** that the bot should respond to.

- **!dateTime** - the bot responds with day and date.
- **!nag('username')** - bot sends accompanying message every three hours until member mentioned in posts.

Validation Test:

Tested and documented by 3 different people on separate servers and in new chat channels where number of messages is known and can be compared to results demonstrated by bot. !dateTime functioning is a good test of the bot's activity.

1.4.1.3. **Feature 3:**

Bot is capable of tracking individuals user contributions /actions in the Discord chat and provide three feedback options.

- **!count("User name") -** Bot returns the total number of messages a person has typed in that particular chat channel.
- **!teamMembers** - The bot returns all team members (active/non-active) who have been a part of the existing chat history.
- **!teamPlayer** - Bot returns all users on board, along with how many times they have mentioned other users in their comments.

Validation Test:

Tested and documented by 3 different people on separate servers and in new chat channels where number of messages is known and can be compared to results demonstrated by bot.

1.4.1.4. **Feature 4:**

Extended team functionality, including the following more advanced tracking features:

- **!bestTime**("User name") - Prompt will show hour of day when user mentioned has posted most.
- **!teamPlayer** - Prompt will return all users on board, along with how many times they have mentioned other users in their comments.
- **!setMeeting**(Time&Date) - Prompt stores meeting time and date and sends reminder messages to the text channel at specified intervals.
- **!dontFreak -** Prompt sends user the amount of time left until the next deadline.

Validation Test:

Tested and documented by 3 different people on at least two different servers.

1.4.1.5. Feature 5:

Exporting/downloading chat history for record keeping purposes. Current few examples of this feature appear to be from non-trusted developers, and no in-house product exists.

- **!saveChat** - bot exports/downloads chat history in text-based format.

Validation Test:

Successful download of a chat history. Chat history saved, opened and readable. Methodology documented and test is repeatable.

1.4.2. Extended Features

1.4.2.1. Feature 1:

Points System for participation.

Every 5 messages sent in text chat and/or 5 minutes spent in voice chat with at least one other person earns 1 point. The system returns that data on request.

Validation Test:

Create a server channel with at least 3 participants. Have the participants create a number of messages of which they will keep track (under 30 each). They will also spend a predetermined amount of time in voice channels. Users then confirm expected data matches what the system returns.

1.4.2.2. Feature 2:

Leaderboard. Users points places them in a leaderboard which ranks them among every other user in the server. Leaderboard shown on command, e.g. !leaderboard. Bot to at least be capable of ranking the top 3 people.

Validation Test:

Using a test server with at least 3 participants, have the participants create a number of messages of which they will keep track of (under 50 each) and then request Bot to display leaderboard. Manually confirm that leaderboard data matches expected data in regards to user name and ranking.

1.4.2.3. Feature 3:

Music Player, to de-stress the stressed members and provide a background when the only one in audio chat. Plays audio, and responds to commands such as !play, !stop, !next. Actual

commands used may be updated to a different set on completion. Music sourced from youtube.

Validation Test:

Play and end a song from source using the above mentioned commands.

1.4.2.4. **Feature 4:**

Sensor inappropriate material (links, language, images etc). Bot blocks content and posts a text warning to chat channel.

Validation Test:

User posts inappropriate content to the channel and records the bots response.

1.5. Project Motivation

For some members of the group, the motivation for this particular project stems from their desire to further their skills and gain knowledge in this area, particularly JavaScript. This idea allows those members to work towards their individual goals through realistic hands-on coding experience, while simultaneously assisting in progression towards team goals, aims and intended outcomes.

The motivation behind our main features is the lack of statistical data available on Discord. Many students make use of Discord for collaboration and communication, though there's no way of exporting chat logs, extracting statistics or monitoring participation. Some members found motivation in the idea of using bots to create a solution to a realistic problem.

Our main features will be useful to any student with the desire to boost their motivation to achieve study goals. The bot will be especially beneficial for those working on university projects as part of a group, which directly relates to our interests as a collective.

1.6. Project Justification

1.6.1. Justified Workload

The project guidelines recommend that time-contribution to the project is 5 hours per week, for 8 weeks, equating to 240 hours for a group of 6 people.

Based off current and projected data, communication will be a significant use of resources, but it has the ability to decrease the time taken on other tasks by streamlining and improving the approach.

Weekly estimates for communication:

- 45 min per week text via Discord text channels, and commentary on Trello.
- 60 min per week audio team meetings
- 40 min per week audio time between ourselves and the mentor.

Study and research in order to progress the project and achieve M.V.F:

- 3 hours per week JavaScript language lessons via resources such as SoloLearn, Team Treehouse, Lynda and other online resources. This is an averaged out figure, and more research is expected in the early weeks, and less in the later weeks of the project.
- Research is a big part of the study as no team member has technical experience in development and designing an IT project, nor with bots, and most have no experience with Discord.
- 3 hours per week (early weeks) watching YouTube videos to gain an understanding of how to create bots, how to implement bots with Discord, research on what bots are commonly used for, etc.

Building and project writing stage:

- 4 - 6 hours a week (later weeks) in creating the bot (i.e. programming and testing) and documenting in the assignment sheets and checking and updating Trello.

1.6.2. Beyond Current Capabilities

No single member of the team is familiar with JavaScript or Discord Bots, so even the first basic suggested M.V.F is beyond current capabilities without studying and testing for every member. Team members have already begun studying JavaScript via SoloLearn, Lynda and Team Treehouse.

Individual capability development is expected, including:

- A first level ability in a new programming language,
- Familiarity with Discord,
- How to initiate an active/online Discord bot,
- How to communicate in order to achieve a single project with a team of geologically separate team members,
- How to effectively resolve issues within a team, including unified project direction,
- How to capability develop fellow team members, this can also be demonstrated by identifying a new skill that is required to create the project and finding a learning resource that addresses that and sharing it amongst the team.

1.7. Project Risks

1.7.1. Project Risks:

1.7.1.1. **Risk:**

Lack of Relevant Skills:

No working knowledge amongst the group in Bot development or coding in JavaScript.

Mitigation:

- Effective goal setting and time management practices need to be put in place so that team members are equipped with the necessary skills required to undertake the task.
- External online learning resources for the above listed skill sets should be sourced and shared amongst all team members.
- Proper delegation of work so that team members skill sets are best utilised.

1.7.1.2. **Risk:**

Missing Deadlines due to unforeseen complication(s)

Unforeseen complications causing delays or abandonment of project. Complications may relate to the availability of team members, deadline creep, or the misallocation of time and resources.

Mitigation:

- Effective *reasonable* goal setting and time management practices.
- Schedule assignment deadlines slightly ahead of due dates.
- Extensive understanding and communication of dependencies with a strong focus on completion of minimal viable features.

1.7.1.3. **Risk:**

Compliance Failure (Discord Terms and Conditions)

Non-compliance with Discord terms and conditions could potentially have a catastrophic impact on the success of a project. Our team could potentially be disallowed acess to Discord API, Discord user client, or both. This would cause delays in correcting non-compliances and requesting access be reenabled.

Mitigation:

- Time allocated to reading and understanding applicable terms and conditions, particularly Discord API T&Cs.
- Summary of applicable terms and conditions provided to all team members, ensuring full compliance
- If so required, internal policies created to ensure compliance.

1.7.2. Team Dynamics Related Challenges (LIST 3)

1.7.2.1. **Challenge:**

Miscommunication.

Potential that collaboration will be impaired due to asynchronous and text-based communication. Scope, delegation, prioritisation, and design could fail to be shared and understood.

Mitigation:

- Group to have regular (weekly) voice meetings using Discord.
- Group to use multiple platforms to establish safeguards to prevent miscommunication and to augment decision-making.

1.7.2.2. **Challenge:**

Poor Productivity.

Procrastination and less-than-motivated team members can slow down project progress.

Mitigation:

- Have a motivated team leader.
- Break up tasks into more manageable parts and dedicate shorter deadlines to create a sense of urgency.Frequent team meetings.

1.7.2.3. **Challenge:**

Inadequate Time Commitment

The availability and time commitment of all members is crucial to the success of our project. Team members not committing to meeting times or unable to make time commitments for project would result in significant delays.

Mitigation:

- Ensure meeting times are mutually agreed
- Encourage and expect adequate time commitment from all members
- Monitor time taken for completion of task(s), ensuring all members are making contributions

2. How

2.1. Resources & Tools

2.1.1. Discord Developer Portal (Discord API)

Discord Developer Portal Link: https://discordapp.com/developers/
User documentation: https://discordapp.com/developers/docs/intro

Description of tool:

Discord Developer Portal provides a set of tools for the development of applications which work with Discord API. There is no charge for the use of the portal or creation of Discord bots.

Why we are using it:

Discord Developer Portal is the most accessible and user-friendly way to develop applications using the Discord API. The portal is extensively documented and contains various features allowing for easier collaboration and development. The 'Teams' feature will be used to ensure all members have the required access and permissions.

Version: 6

Cost: free

Alternatives:

Limited viable alternatives are available for Discord development, though our bot could instead work with an alternative API. For example, a TwitchTV chat bot: https://dev.twitch.tv/docs/irc/

2.1.2. Visual Studio Code

Visual Studio Code Link: https://code.visualstudio.com/
Documentation: https://code.visualstudio.com/docs

Description of tool:

Visual Studio Code is a source-code editor that provides a space to build and debug web applications. It has in-built Git, along with a wide range of extensions, and is highly customisable.

Why we are using it:

Visual Studio Code is one of the top source-code editor applications for coding JavaScript, and got a 5/5 rating from Martin Heller in his article "Review: The 10 best JavaScript editors" (Heller, 2019). We will be taking advantage of the embedded Git control to sync our changes to GitHub.

Version: 1.35

Cost: free

Alternatives: Sublimetext: https://www.sublimetext.com/

2.1.3. Discord

Discord Link*:* https://discord.gg/z6zQ2ZU
Discord Info*:* https://support.discordapp.com/hc/en-us

Description of tool:

Discord is a voice over IP and messaging application, that was initially designed for the gaming community. It can be used on desktop or mobile platforms and has browser support, and includes specialised communication in chat channels such as text, image, video and audio.

Why we are using it:

Discord is a well-known and easy-to-use platform, serving as a familiar place to easily visualise the bot we will be creating. Our team will require Discord for testing our application.

Version: 6
Cost: free
Alternatives: Mumble: https://www.mumble.com/

2.1.4. Adobe Premiere Pro

***Adobe Premiere Pro Link**:*
https://www.adobe.com/au/products/premiere.html
RMIT myDesktop: https://mydesktop.rmit.edu.au/

Description of tool:

Adobe Premiere Pro is a professional video editing application. The application contains features for organisation, timing and editing of video and audio files.

Why we are using it:

Our team has chosen to make use of this particular video editing software as it's included free with our RMIT enrollment. Various other alternatives were considered, though are either too basic (ie Windows Photos Movie Editor) or involved hefty costs (Vegas / Camtasia). The application can be accessed free through RMIT myDesktop.

Version: CC 2018
Cost: free via myDesktop
Alternatives:
Sony Vegas: https://www.vegascreativesoftware.com/au/
Camtasia: https://www.techsmith.com/video-editor.html
Windows Photos Movie Editor: https://www.microsoft.com/en-gb/windows/photo-movie-editor

2.2. Collaborative Workspaces

2.2.1. Google Docs

Google Docs allows for live collaboration on documents, ensuring team members can work together collaboration on the creation of documentation. Throughout this project GoogleDocs will be used for the creation, version control and collaboration of documentation.

Google Docs Link:
https://drive.google.com/drive/u/2/folders/1ZtWdx3cA5oInVqkuM9B0VAquz2VgQsHp
Google Docs Guide / User Documentation:
https://support.google.com/docs/topic/9046002?hl=en-GB&ref_topic=1382883

2.2.2. Trello

Trello is specifically designed along Kanban board principles in order to assist a team in efficient delivery of its objectives. Trello's power comes from instant update across geographically remote users, so members immediately know what is expected of them, what other team members are working on and have completed, and this then allows them to know whether they are able to move along with precursor steps completed.
Trello link: https://trello.com/b/yR6cFr1l/alphabetesq
***Trello Guide**:* https://trello.com/en-AU/guide

2.2.3. Discord

Discord will be used as our primary means of communication throughout this project. Text channel(s) will be used for announcements and discussion, with weekly meetings held in voice channels.
***Discord Link**:* https://discord.gg/z6zQ2ZU

2.2.4. Github

Our team will use of Github for collaborative software development, making use of revision and version control for ease of testing.
Github link: https://github.com/Dyl459/AlphabetEsq
Accessing Guide: https://trello.com/c/S03usjeP/122-sign-up-for-github
General User Docs: https://guides.github.com/

2.3. Communication Expectations

In order to complete this project, and individually have a successful semester as part of the 'Build IT Project' unit at R.M.I.T there are some communication guidelines that will facilitate this task, including:

- Respond to members questions promptly, which involves checking our Discord text channels daily.
- Scheduled weekly audio to be attended. Expected minimum time for attendance is 20 minutes. Audio communication allow us to gain consent/advice rapidly which allows the project to proceed more quickly.
    - Audio channel meetings held within the team Discord group have two weekly scheduled times: 8pm Tuesdays / Thursday
    - Members to participate in a minimum of one scheduled audio session weekly. This is in consideration of the work and personal responsibilities of team members.
    - As much notice to be given as possible if an audio meeting cannot be made, so attempts can be made at rescheduling if necessary.
- Communication to be respectful and professional. Consistent offensive breaches will result in reporting the team member.
- Direct chat messages aimed (@everyone or @individuals) to be **responded to within 12 hours by all.** Adequate responses include

"acknowledged", "agree", or a disagreement (preferably with reasons).

- If there is a significant edit, e.g. to the Assignment or Team Notice Board [Google Drive], an @everyone announcement is to be made in the Discord chat.

2.4. Decision Making Processes

The team decision making processes are based on the following principles:

- Majority consensus: If the team has 5 members, then 3 is the majority, and for 6 members it is 4.
    - Deadlock: People to provide a reason for their decision/opinion, as this may positively influence others to the as they may not have considered those reasons.
    - OR the reasons might be based on false logic which can be rectified so the team benefits from correcting mismatched assumptions and ideals.
    - In case of continued deadlock (only after debate), a coin-toss.
- Initially (prior to Trello creation) all decision making choices were made via the team Discord chat server. This has the following channels: #announcements, #to-do and #general text channels and an audio channel.
    - Highlighted communications is via the @everyone in-built function,
    - The #announce channel is for important notices, including announcing a decision for team input with links to Trello card, and team members can vote directly on that card.
- To facilitate project completion within timelines, quick responses are required. Each team member has a maximum 24 hours to respond to a decision, or their vote is forfeit and is removed from majority rules consideration.
- The team may not always be able to reach a decision within 24 hours, as it may require clarification from A.B.N Russel (course coordinator), or the mentor. Pre-votes can be cast, but one team member is then to take responsibility for the decision once all information obtained (via Trello card) and collate responses within 24 hours afterwards. Shorter deadlines to be enforced if necessary for progression, it is up to the team members discretion.
- On smaller decisions, team members have autonomy to pre-select their idea and commence working with it if it does not affect other members contributions.
    - An announcement to the team of their actions, and any counter-ideas to be received within 24 hours. E.g. "minimum viable features". In this scenario, a team response was called for but executive decision made due to lack of responses.

3. When (30 Marks)

W = Week
C = Course work
P = Project work

W	Title	Type	Planned Start	Planned Due	Lead by
Assignment 1 - Project Proposal					
3	*Trello board creation*	C	10/06/19	11/06/19	R.HARTIGAN
3	1.1 Project Name	P	10/06/19	10/06/19	R.HARTIGAN
3	1.2 Project Description	P	10/06/19	16/06/19	M.BROERSEN
	1.3 The Team				
3	Alexander Blanchard Casey Edwards Christopher Crawford Ely Hawkins Dylan Currie Melanie Broersen	C	10/06/19	16/06/19	A.BLANCHARD C.EDWARDS C.CRAWFORD E.HAWKINS D.CURRIE M.BROERSEN
	1.4 Demonstrable outcomes				
3	1.4.1.1 MVF 1 - E.HAWKINS 1.4.1.2 MVF 2 - E.HAWKINS 1.4.1.3 MVF 3 - D.CURRIE 1.4.1.4 MVF 4 - R.HARTIGAN 1.4.1.5 MVF 5 - A.BLANCHARD	P	10/06/19	16/06/19	E.HAWKINS D.CURRIE R.HARTIGAN A.BLANCHARD
	1.4.2 Extended Features				
3	1.4.2.1 EF 1 - E.HAWKINS 1.4.2.2 EF 2 - E.HAWKINS 1.4.2.3 EF 3 - R.HARTIGAN 1.4.2.4 EF 4 - E.HAWKINS	P	10/06/19	16/06/19	E.HAWKINS R.HARTIGAN
4	1.5 Project Motivation	C	10/06/19	18/06/19	M.BROERSEN
3	1.6.1 Justified Workload	C	10/06/19	18/06/19	R.HARTIGAN
3	1.6.2 Beyond Current Capabilities	C	10/06/19	18/06/19	R.HARTIGAN
	1.7 Project Risks				
3	1.7.1.1 Risk 1 - E.HAWKINS 1.7.1.2 Risk 2 - M.BROERSEN 1.7.1.3 Risk 3 - D.CURRIE 1.7.2.1 TDC 1 - A.BLANCHARD 1.7.2.2 TDC 2 - M.BROERSEN 1.7.2.3 TDC 3 - D.CURRIE	P	10/06/19	18/06/19	E.HAWKINS M.BROERSEN D.CURRIE A.BLANCHARD

	2. How				
3	2.1 Resources & Tools	C	10/06/19	18/06/19	D.CURRIE M.BROERSEN
3	2.2 Collaborative Workspaces	C	10/06/19	18/06/19	R.HARTIGAN D.CURRIE
3	2.3 Communication expectations	C	10/06/19	18/06/19	R.HARTIGAN
3	2.4 Decision Making	C	10/06/19	18/06/19	R.HARTIGAN
3	*Week 3 Team Meeting*	P	11/06/19	11/06/19	ENTIRE TEAM
4	3. When section completed	C	10/06/19	21/06/19	D CURRIE M.BROERSEN
4	*Week 4 Team Meeting*	P	18/06/19	18/06/19	ENTIRE TEAM
4	*Trello Board Updates*	C	18/06/19	21/06/19	D.CURRIE M.BROERSEN C.CRAWFORD
Assignment 2 - Feature Demonstrations					
	1. Core Feature Demonstrations				
5	*Research Into Bot Building*	P	23/06/19	03/07/19	ENTIRE TEAM
5	1.1 Core Feature 1	P	23/06/19	04/07/19	E.HAWKINS
5	1.2 Core Feature 2	P	23/06/19	04/07/19	D.CURRIE
5	1.3 Core Feature 3	P	23/06/19	04/07/19	M.BROERSEN
5	1.4 Core Feature 4	P	23/06/19	04/07/19	C.CRAWFORD
5	1.5 Core Feature 5	P	23/06/19	04/07/19	C.EDWARDS
5	*Week 5 Team Meeting*	P	25/06/19	25/06/19	ENTIRE TEAM
6	*MVF 1 Completion*	P	30/06/19	07/07/19	C.CRAWFORD
6	*Week 6 Team Meeting*	P	02/07/19	02/07/19	ENTIRE TEAM
6	2. Project Estimation	C	04/07/19	07/07/19	ENTIRE TEAM
	3. Listing Technologies				
7	3.1 Collaborative Workspaces	C	07/07/19	12/07/19	D.CURRIE
7	3.2 Software	C	07/07/19	12/07/19	E.HAWKINS
7	3.3 Tools	C	07/07/19	12/07/19	M.BROERSEN
7	3.4 Resources	C	07/07/19	12/07/19	C.CRAWFORD
7	*MVF 2 Completion*	P	07/07/19	14/07/19	E.HAWKINS
7	*Week 7 Team Meeting*	P	09/07/19	09/07/19	ENTIRE TEAM

	4. Extended Features				
7	4.1 Extended Features 1	P	12/07/19	19/07/19	E.HAWKINS
7	4.2 Extended Features 2	P	12/07/19	19/07/19	M.BROERSEN
7	4.3 Extended Features 3	P	12/07/19	19/07/19	C.EDWARDS
7	4.4 Extended Features 4	P	12/07/19	19/07/19	C.CRAWFORD
8	*MVF 3 Completion*	P	14/07/19	21/07/19	M.BROERSEN
8	*Week 8 Team Meeting*	P	16/07/19	16/07/19	ENTIRE TEAM
Assignment 3 - Stage 1					
9	1. Project Background	C	21/07/19	24/07/19	D.CURRIE
9	*MVF 4 Completion*	P	21/07/19	28/07/19	C.EDWARDS
	2. Project Progress				
9	2.1 Description	C	21/07/19	29/07/19	E.HAWKINS
9	2.2 Outcomes to Date	C	21/07/19	29/07/19	M.BROERSEN
9	2.3 Scope Creep	C	21/07/19	29/07/19	A.BLANCHARD
9	2.4 Progress	C	21/07/19	29/07/19	C.EDWARDS
9	2.5 Testing	C	21/07/19	29/07/19	A.BLANCHARD
9	2.6 Tools and Technologies	C	21/07/19	29/07/19	M.BROERSEN
9	*Week 9 Team Meeting*	P	23/07/19	23/07/19	ENTIRE TEAM
10	*MVF 5 Completion*	P	28/07/19	04/08/19	D.CURRIE
10	*Week 10 Team Meeting*	P	30/07/19	30/07/19	ENTIRE TEAM
10	3. Challenges and Learning	C	30/07/19	13/08/19	ENTIRE TEAM
10	4. Project Processes (Group Dynamics)	C	30/07/19	13/08/19	ENTIRE TEAM
10	5. Marketing Pitch	P	30/07/19	13/08/19	C.CRAWFORD
10	6. Skills and Jobs	C	30/07/19	13/08/19	D.CURRIE
10	Professionalism	C	22/07/19	18/08/19	M.BROERSEN
13	Updates to Outcomes + Progress	C	19/08/19	25/08/19	ENTIRE TEAM
Assignment 3 - Stage 2 (Video Presentation)					
10	*Creation of storyboard*	C	06/08/19	12/08/19	D.CURRIE
10	*Creation of Presentation Materials / etc*	C	06/08/19	16/08/19	ENTIRE TEAM

	1. Group Video Presentation				
10	1.1 MVF 1 Demonstration	C	08/08/19	16/08/19	C.CRAWFORD
10	1.2 MVF 2 Demonstration	C	09/08/19	16/08/19	E.HAWKINS
10	1.3 MVF 3 Demonstration	C	09/08/19	16/08/19	M.BROERSEN
11	1.4 MVF 4 Demonstration	C	12/08/19	18/08/19	C.EDWARDS
11	1.5 MVF 5 Demonstration	C	12/08/19	18/08/19	D.CURRIE
11	Extended Feature(s) Demonstration(s)	C	16/08/19	22/08/19	ENTIRE TEAM
11	Compilation of Videos / Recordings	C	16/08/19	23/08/19	D.CURRIE
13	Team Log (Compilation of Trello Links) + preparing of submission materials	C	23/08/19	25/08/19	ENTIRE TEAM

Resources:

- Heller, M. (2019). Review: *The 10 best JavaScript editors*. [online] InfoWorld. Available at: https://www.infoworld.com/article/3195951/review-the-10-best-javascript-editors.html [Accessed 16 Jun. 2019].