Introduction to information technology Assessment 3

In Memory of John/Dane

May 30, 2021

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Team Profile

Preamble

The name we've chosen for our group is "In Memory of John" and was joking-ly coined following John Duong absence to class, since them the name has stuck, and John hasn't been absent.

A group consists of various individuals working in tandem, and "In Memory of John" is no different, below is an introduction paragraph for each of the five members of the group; since the previous assignment this section has only had minor changes in response to feedback provided with the notable difference being the loss of group member and friend Dane Trotman Scerri, whom has since left the group irrespective of his departure his contributions to the group have been immense and portions of his work can be found in this report. to commemorate Danes leaving we have decided to rename the group "In Memory of Dane" although some sections may not be refer to the new name.

0.1 Personal information

Jarrod Franchi

Hi, my name is Jarrod Franchi, my student number is s3900062 and my student email is s3900062@rmit.student.edu.au, I am from Italian and Mauritian backgrounds. I am tri-lingual, my first language is French, then learnt English as well as learnt Italian for all my primary and secondary schooling.

I completed year 12 In the year 2020. An interesting fact about myself was that throughout the duration of my secondary schooling I ran a small business for building and selling custom built Gaming Computers for people who were inexperienced in building them, also teaching them how to build them if they wanted; I find building computers a very enjoyable and relaxing pastime. Apart from being a tech nerd, I enjoy playing football, soccer, table tennis and swims either on the beach or in pools.

I enjoy thrills and going on long bike rides and doing dangerous stunts like jumping off ramps and man-made mountains with my bikes, my mates and I often go on large mountain biking trips, when we are not, we go for drives in the mountains. Whilst being a large tech nerd, I am a big motor head! I love anything that has a motor, also my favourite car brand would be Holden or Holden Special Vehicles. My interest in IT has been with

hardware and software, for hardware I enjoy, as mentioned before, building computers;I am fascinated with how components work in unison (or sometimes against each other). I also find the progress of computers and how they have evolved. Whilst the physical hardware of computers is fascinating, the software that runs on it is quite interesting too.

I am blown away by how the software that has been developed can help people and that helps people in their everyday life. My interest in IT started a while ago, maybe in 2010. We had an old Compaq Desktop, and I started to tinker around with various operating systems like Windows Vista, Windows 7 and learning about how components work and what their purposes are. I also dabbled with Virtual machines and their limitations. This sparked an interest with computers and from then on, I found myself picking up old computers and fixing them, taking them apart and learning about how all the hardware works. Another large influence was my father, since he worked largely to do with circuits and electrical items such as fans and lights, I was already more guided to the hardware side of IT.

Since I feel knowledgeable to do with the physical side of computers, I wanted to learn about the software side. I have also worked for a company called GS1 (year 10 work placement) which taught me network topology as well as the management of various user's accounts stored on a centralised server. The group I am apart is In Memory of John.

John Duong

John Duong - S3896165, - s3896165@student.rmit.edu.au My name is John Duong (My online tag is issajojo but my internet friends mainly call me by jojo). I was born here in Australia in the town of Sunshine. I am Vietnamese and speak it at home with some English mixed in sometimes, mainly to my siblings that I live with.

I just completed high school last year and I am currently a first year studying Bachelor's of Information Technology. An interesting fact about me is I have a scar on my forehead which had occurred when playing tag in the house, and running into a door with a nail sticking out of it.

I enjoy playing games with the homies although I think I've sunk a lot of hours into mobas, specifically League of Legends and Dota 2 (mainly League) but I am still trash at these games for the amount of time I've put into them (:D). I also like reading manga as well as manhwa, listening to music, and watching anime. A passion of mine is to try and make my friends happy when they are down or even just to make them laugh when they are not; I also am passionate about supporting and bringing people's well beings up. The group I am apart of is In Memory of John.

Michael Ly

My name is Michael Ly (pronounced as Lee), my student number is s3899226 and my school email is s3899226@student.rmit.edu.au, I am a first-year student at RMIT, so there is a lot of things that are new to me. I want to learn everything there is to learn about IT because technology has been growing drastically over the past few years. I was born in Vietnam and moved to Australia in 2012, legally. My main language that I speak is English, but I can also speak Vietnamese fluently.

I like to make music but recently I got interested in investing in cryptocurrency, but I also try to explore new things. I never thought that I would go to university and study IT, back in year 11 and start of year 12, I was dead set on becoming a music producer and would study music, but here I am. My favourite animal is dogs, but my dad will not let me have my pet, I believe if I had a dog, I would be 10 times happier than how I am right now. My ultimate goal in life is to get rich, move out of my parents' house and get a dog. My favourite thing to watch is anime, it is an easy way to forget about reality for a while... I know it sounds sad. I also like working out and try my best to be consistent.

Tinotenda Bhebe

Hello, my name is Tinotenda Bhebe, and I am a nineteen years old male raised in Melbourne Victoria and a member of the In Memory Of John team for the Introduction to Information Technology course at RMIT University, my RMIT student id is s3896133; my interest in ICT is born from a desire/passion towards understanding technology and how it works, as a result I have an active interest towards various ICT disciplines from cyber-security, machine learning and networking/remote computing, irrespective of specific discipline my ICT overall interest in ICT relates to computing policy concerns such as cyber-security and information warfare, machine learning and the machine acceleration of Australian workforce as seen in Plan Jericho and more policy related interests.

I am currently competing a Bachelor of Information Technology at RMIT University to hopefully prepare me for a successful career in IT and to help transform my currently inadequate and limited ICT skill-set and industry knowledge into a skill-set usable in the workforce;outside of ICT my hobbies include online multi player video games such as apex legends, endurance road cycling for example a ride between Dandenong and the city and strength training in the gym my hobbies are all based around skills that can be improved or developed as well as directly compared this is because as a person I'm always seeking to improve my skills and I am also a competitive person so any task that lets me do both is likely to instantly become a beloved hobby of mine.

Travis Lim

Hello, my name is Travis Lim, an Australian born overseas and raised in an Indonesian household. I speak English and have completed primary and secondary education at Good News Lutheran College. Additionally, I've graduated from secondary education last year

in 2020 and have received an ATAR. My main hobby is gaming on my laptop with my high school friends. I am interested in the field of cyber security because during my later school years I was influenced by my computer teacher into considering the impacts of my actions online and the personal information that I leave behind for corporations to store. I completed all units of VCE software development. I am part of In Memory of John.

0.2 Group Process

as a group we worked well to produce to the final report in assignment 2, the feedback given by individual memebers identified a lack of communication as a major flaw of the group, thusly entering assignment 3 a more structured approach to communication will be the goal, moreover the use of a psuedo centralised ledger where group members can update thier progress towards completing sections of the report will lead to improved awareness of the reports completion progress, beyond that no other changes will be made to the group process.

0.3 Career plans

Throughout assignment 2 and 3 members of in memory of John have gotten the opportunity to work together to complete multiple reports and develop a program, these activities have been important in the process of getting our degrees and gaining experience working as part of a group to complete objectives. Ultimately this experience has represented one minor part of our journey as we strive to qualify for our separate ideal jobs, these jobs are:

- Jarrod – Principal Security Consultant,
- Tinotenda - Cyber Security Operations Manager,
- John – Cyber Security Analyst,
- Michael – Professional Programmer,
- Travis – Cyber Security Analyst

interestingly four out of five members of the group would like to enter the field of cybersecurity, cybersecurity has seen an explosion in importance, as electronics become a pervasive part of modern living, now more than ever its important to to ensure the security of our computers, servers, mobile devices, electronic systems, networks, and data from bad actors, Austcyber estimated an additional 18 thousand jobs in the cyber security industry over the next decade, its been described that Australia has a cyber security shortage taking this into consideration, Jarrod,John,Tinotenda and Travis will soon find themselves in a quickly growing and expanding industry in need of their expertise.

Despite multiple members of group seeking to enter the cybersecurity industry, each of their ideal jobs are unique, interestingly cybersecurity consists of roles like penetration testers, code auditors, exploit researchers and more, all members of the group sought

defensive cybersecurity roles; Jarrod would like to become a "Principal Security Consultant", which is a senior security planning role, creating information security systems for clients in contrast Tinotenda wants to become a Cyber Security Operations Manager which is a senior role, managing and leading the security of a singular organisation lastly John and Travis would like to become Cyber Security Analysts which are the individuals who assess and research security exploits, there are even more differences between the roles; Tinotenda ideal job requires securing one organisation whilst John, Travis and Jarrod will likely work as contractors or for businesses contracting their skills to service multiple organisations, whilst Jarrod and Tinotenda will likely have to gain leadership experience to manage teams as their ideal jobs are managerial positions, Travis and John will be able to work alone or as part of team and wont require said experience to enter their ideal job;where Jarrod will design information security systems, Tinotenda will have to maintain info-sec systems and respond to breaches and incidents.

deviating from the rest of the group is Michael ly who aspires to be a software/application developer, application developers are professionals who create and maintain programs, these programs can range from web applications such Facebook and twitter all the way to testing and debugging medical software, as we enter the fourth industrial era, the digitisation and machine acceleration of the economy has created a strong upwards demand for software developers in fact The Department of Employment, Skills, Small and Family Business believes that over the next five years the software development industry will have very strong growth hopefully one of these jobs will be Michaels lys, unlike the cyber security crew Michael will likely be able to work in software/application development industry faster due to the overwhelming demand for employees both entry level and experienced, unlike the high demand for experienced cybersecurity professionals, and small demand for entry level professionals

Artefact

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Tools

When completing a large multi-person project its important to maintain a clear record of events consisting of who, what, when and where this record is known as an audit log and/or audit trail and should capture all project relevant events across the platforms used.

In the previous report we failed to maintain a clear audit trail, this has been resolved throughout this assignment, and our new audit trails should support the clear tracking of individual work contribution; our audit work flow consists of of Github, Google Docs, Microsoft Teams and Facebook messenger, these are the same applications used in the previous assignment below is an explanation of how events can be tracked and what each platform was utilized for.

The term integration as used in this report refers to the process of converting individual work completed into submission form, this process includes editing and rewriting as to ensure the work fits in the context of the rest of the report.

Github was used to share all collaborative programming work including the project artefact and website, a copy of the report containing integrated work was also backed up on Github, Github provides detailed audit logs via the repository commit log this log clearly and accurately shows all work completed, as well as who and when.

Google docs was used for sharing integrated writing as well as for assigning specific tasks, Google docs maintains a record of changes which sufficiently satisfy the four Ws and the information therein should be used as the primary record of tracking completed report work.Microsoft teams was used to hold and record meetings as specified in the assignment brief, Microsoft teams provides functionality that allows group members to schedule and record meetings.

In contrast to Microsoft teams, Facebook messenger was the channel used for all informal communications including private communication unrelated to the project, discussions in Facebook messenger included requests for information and support, questions and clarifications regarding work, and requests for submission, no work was completed in Facebook messenger however its important to mention it, since Facebook messenger made up the majority of communication, due to its nature Facebook messenger is not truly representative of the work completed or allocated, and as a result no message logs are provided and it is not a a part of the audit trail.

In conclusion we have a strong audit trail, which can be accessed in the methods men-

tioned above, a document containing the Microsoft teams video links will be submitted separately to this document; another method of tracking our audit log is via the use of the auditlog tool as posted on githb, the tool is a python script which should make a an sql database tracking the change log/ revisions of the github repository and google docs document.

GitHub PublicRepository URL: https://github.com/issajojo/Assignment3
GitHub Pages URL: https://issajojo.github.io/Assignment3

Google Docs Draft URL: https://docs.google.com/document/d/1i8yoMxDYCpXYNBt-6zb_UePwDJlchorKVaYAe3xxYo0/edit?usp=sharing

Project Discussion

0.4 Aims

The aim of the project is to create a text adventure game with multiple endings. The player will be presented with different choices throughout the game, these choices change a player's score. The score determines which of the multiple endings the player experiences. We hope that if we complete our aim, the group will have something to play in our pastime.

The first goal to completing the project is making the story. The story should include an introduction to the game world and what the player is doing in this fictional world. The story itself should be relevant across each stage of the game and provide a sense of immersion inside the game. This goal is present because a text-based role-playing game without a storyline does not give the player a role to play.

The second goal is to have the GUI include various elements. These elements include the picture box which contains images that relate to what is happening at each stage of the game. Buttons are there to let the player make choices during gameplay, and labels provide text space for the app to show health points, damage, inventory, as well as show the story.Creating the GUI is a technical objective to see if we can check if we can create a GUI for a text based game.

The third goal is to program the game, this process includes ensuring all the back end elements react to player input via the three interactive buttons. Game logic is built around nested and chained conditionals which trigger various functions, directing narrative. This is the most important objective, since a program cannot operate without working underlying code.

0.5 Plans and progress

Our group project idea is to create a text-based adventure game called the mystery of the wasteland ruins. the game will only be able to be played on pc. because our group felt making it compatible with mobile would hinder the quality of the game as we would have to adjust the images and text to fit on a small screen this would make the mobile version look far too cluttered and would negatively affect the user experience with the game.

We decided to create this game with a fiction fantasy demographic as the audience in mind. The target audience would need to be able to have a basic understanding of computers, additionally they will require the ability to read and comprehend information in order to play the game.

Since the game is text-based with a simple interface that contains an image with the text describing what is happening in the story. the user will be able to continue the story by pressing buttons on the screen via the mouse left-click this furthers the story and will lead to different outcomes based upon the user's choice. by using a combination of images displayed and text on buttons, the user will be able to automatically understand the function of certain controls.

An example of this in practice is the image of the bandit being hurt after they click the damage button and the screen saying "you have attacked the enemy". The benefit of this simple design is that it will enable the user to recognize how to play the game without needing to recall more in depth controls like other games. Being text orientated, graphics are non-existent; it will be a pop-up image depending on the user's choices accompanied by some text giving an explanation to the goings-on within the story.

For the game to function correctly it will require the play button when clicked with the left mouse button to start the story so the user can begin playing the game, the quit button will end the game and close the window when clicked. The choice buttons when chosen via left mouse click will require the game to change the background and the text that is present to the text and image that is connected to the user's choice additionally.

0.6 Roles

"It is sometimes useful to define roles for particular participants, such as Lead Developer, or Technical Designer, or User Interface Designer. It is also possible that roles are changed from week to week, depending on what needs to be done next. Have you defined any specific roles for your project? If so, describe and justify these. If not, describe your process and justify why there are no specific roles."
The roles in this project will include lead UI designer, UI designer, lead story writer, story writer, lead programmer and programmer.
Jarrod will have the role of lead UI designer, his responsibilities are to design a UI that is suitable for the game.
Travis will take the role of lead programmer where he has the responsibility of programming the code.
Tino will have the responsibility of a programmer where he makes sure that the code will work.
John will be responsible for story writing where he will write a story for the game.
Michael will be responsible for assisting John in writing the story and make sure that everything works well and proper grammar.

0.7 Scope and limits

The game will use buttons and will not accept custom user input. The project will either feature a very minimalist graphical interface with some form of art for each scene and outcome or none at all. The program should output different results for different options selected by users and record said results for use in deciding the ending of the game. Per scene there will be at least two different options with a maximum of three.

The game should not have more than 4 unique endings so it can be completed within the set period allotted for the project. Each scene should contribute to a number score which is processed at the end of the game and ultimately contributes to the ending scene given. The higher the score the 'better' the ending will be. Player death will immediately trigger the worse ending by default.

The player and enemies will take turns in combat with up to 3 actions per round, being damage, heal or nothing. Damage in combat scenes will strictly use integer variables rather than float to make it easier for players to read damage scores. When the health points of an enemy reaches 0 the enemy will die, same goes for the player character if they reach 0 health points. In the case of death, the player's game will reset completely. Damage and health will be reported back to the player via a text box after every combat action. There will be a healing option which will be only for the player, restoring lost health but never going over the player's HP limit; this will also be reported to the player via text box.

The game will have no animations for combat or any scene in general. If images are included they will be static. There will be no music in the game.

The player should also be able to enter in a name to call themselves during the duration of each playthrough. All player interactions will be done through the three buttons which give the players choices to attempt throughout the entirety of the game. Combat gameplay will be done through buttons, making story choices in roleplay will be done via buttons and all other input should be made by clicking any of the buttons.

0.8 Tools and Technologies

Since the project group consists of five members, the project will require members split up and complete different objectives, thus whilst this section discusses what tools and technology will be used, group members will only need to possess some but not all of the tools mentioned;
to facilitate collaborative and remote development a shared repository and version control system will be required, both to ensure a clear audit trail of which group member competed which task, but to also keep track of issues with the program and progress towards meeting our objectives, the tool used to compete the above is GITHUB, a popular and fully featured version control system/ project management website, GITHUB was chosen mostly because of its ease of use being a cross-platform website/system that uses

git and the fact that all members of the group are well antiquated with the website as part of Introduction to Information Technology COSC1078 at RMIT University.

All developers will require a working computer(including peripherals) whether laptop or PC(personal computer) to program the application as well as test and play it, since the competed project will be a PC program, the computer used must be possessing a modern version of windows, with the latest .NET framework installed on the device(This often automatically installed on windows 10.).

To program the application, we will use Visual Basic .NET in the Visual Basic Integrated Development Environment(VB IDE) , the IDE extends the functionality of visual basic and allows for the rapid deployment of user interface(UI) elements this is because developers can create elements via drag and drop and other visual techniques, however beyond empowering rapid development, the key reason for using VB IDE and the visual basic programming language is that most members of the group have experience programming and working with the language/tool set, and the project application is not so specialised as to invariably require a specific programming language.

lastly to write the story we need a word processor that can keep track of changes and allows for multiple users to work in the same file, whilst many applications have these functionalities Google Docs ease of access being accessible on web browsers, computers and mobile devices, made it a strong competitor, like Github Google Docs empowers group members to create and edit documents online and collaborate with group members in real-time, all changes are tracked via revision history and all users work is clearly distinguished, Google Docs is also integrated into the project members RMIT students accounts.

0.9 Testing

Our product is an interactive adventure game and is meant for the enjoyment of customers to pass time. To test the product, we will have 15 to 20 people run through the game and report back on what they enjoyed about it, or any errors they encountered during the alpha stage and suggest items in which they wish was included, or what and things that should be improved upon.There is no background required for each user, just an eagerness to play a new text-based game, although it is suggested that each user has a knowledge of how to use a computer and has played/ read a choose your adventure game or book. There also will be a survey with a copy of the game embedded in our product website in the beta stages. The survey will ask questions about the game and have the ability for users to report what they enjoyed and what should be improved like the interviews.

To know the game has succeeded, the game shall have no crashes, and users should enjoy the story line and not have major things suggested to improve upon. Another way to know that we have succeeded is if we were to upload the game to a major app store, for

example the Google Play Store, the download number is high and if people are willing to buy advertisement spots.

Since the project involves user testing as stated earlier, the way testing will be set up in the alpha stage is a room will be rented out with a computer running windows and the game loaded as an executable. Through this, the tester can see how the user runs through the game and what struggles occurred. The number of people tested in this will be at a minimum 15 and at most 20, as if a recurring error is present, it will become visible. This will be conducted 3 to 4 times until the team is happy with the final alpha thus becoming a beta.

For Beta testing, the application will be embedded into a website and users provided with a link of the game as well as a survey after a playthrough is completed. Each beta will be updated in a 2-monthly occurrence. After each 2-month period the errors and suggestions will be considered, and the game altered until the "suggestions become fewer. Per beta run, an expected user input is at minimum 100 and at most 1000 survey results.

0.10 Timeframe

The tables in this section are broken, i have spent untold amounts of time trying to fix it, its not working with me

10-week further development timeframe

time:	Jarrod
Week: 1	alpha game is released, 20 people found
Week: 2	the results from the 20 people is reviewed as well as change
Week: 3	2nd round alpha is released, 15 people found
Week: 4	the results from the 20 people is reviewed as well as change
Week: 5	Beta is released on website, 1000 responses are formulated
Week: 6	Results are reviewed and suggestions are noted and implem
Week: 7	2nd round beta is released as well as website updated
Week: 8	Results are reviewed and suggestions are noted and implem
Week: 9	Final game is reviewed by private testers and attempted to
Week: 10	if game is 100 per cent complete, game is uploaded to an a

10-week further development timeframe

time:	John
Week: 1	Work on prep for the presentation, etc
Week: 2	Continue to plan the rest of the game's story alongside arti
Week: 3	The story of the game should be completed by now.
Week: 4	Game beta is released and survey question are created
Week: 5	Survey results are gathered and persistent issued addressed
Week: 6	Beta run 2 is released and survey released
Week: 7	Final beta is completed, website updated

Table 2 continued from previous page

10-week further development timeframe

Week: 8	Website css and backend it updated for final game
Week: 9	Final game website is updated and app ready for app store
Week: 10	The game is completed and ready to be played.

10-week further development timeframe

time:	Michael
Week: 1	Brainstorm ideas for a story and speak with other member
Week: 2	A story is written up including scripts and characters in th
Week: 3	Make adjustments to anything that is needed to fix such as
Week: 4	Help other members with creating the game
Week: 5	Help other members with creating the game
Week: 6	Help other members with creating the game
Week: 7	Help other members with creating the game
Week: 8	Help other members with creating the game
Week: 9	Help other members with creating the game
Week: 10	Help other members with creating the game

10-week further development timeframe

time:	Tinotenda
Week: 1	begin debugging and early testing of the program
Week: 2	begin researching competing products
Week: 3	test product on linux
Week: 4	help implement story telling in program part 1/3
Week: 5	help implement story telling in program part 2/3
Week: 6	help implement story telling in program part 3/3
Week: 7	work on stage 9
Week: 8	work on stage 10
Week: 9	work on stage 10
Week: 10	clean up code

10-week further development timeframe

time:	Travis
Week: 1	Code for stage 4 is finished.
Week: 2	Code for stage 5 is finished and the UI has been updated t
Week: 3	Code for stage 6 is finished but there is an issue with the i
Week: 4	Inventory array is fixed and now works but stage 7 of the a
Week: 5	Stage 7 code is finished but nested conditionals for user ch
Week: 6	Stage 8 code is finished and the nested conditionals are fixe
Week: 7	Stage 9 code is finished.
Week: 8	Stage 10 code is partially finished but endings are not resp
Week: 9	Stage 10 code is partially finished but endings are not resp

Table 5 continued from previous page

10-week further development timeframe

Week: 10	All endings are working and the app is finished.

0.11 Risks

There are a few risks that we may encounter as we work towards a prototype of our game, these risks could include: Visual basic coding may not be as straightforward and easy to code with which could delay creation of game and or result in poor quality of said game, this could be the case as it may be not as easy or done in the way we would like to have created it, e.g. to creating paths / different scenarios of gameplay may not be the same as you could do in other programming languages.

There is also the problem of visual basic programmers not being as experienced or knowledgable as each other to the point which could impede their coding when trying to handle their section of the work, e.g. being asked to do something they don't know how to do. Another risk is that with the concept of creating a game, we may be able to create a game but will it be very bland and boring to the player and not to us?

The risks specific to the language Visual Basic is that although designing the front end will be easy, the code behind it might be jagged and inefficient.

One other risk is that only half the group knows how to code in visual basic, which would make testing hard as if there is a detrimental bug within the game, the 2 people that know the language will have t take time to fix it, this is a risk as the work they are currently in the process of finishing gest hindered and often forgotten.

0.12 Group processes and communications

Our group will communicate via the software Microsoft Teams in the group call function. We will have a call every Saturday and Sunday between 5-7pm. Outside of standard meetings the group will also be communicating via facebook messenger group chat to discuss issues and deadlines throughout the week when not everyone can communicate simultaneously. If a group member does not respond to a meeting they will first be pinged via Microsoft Teams and then on Facebook Messenger up to two times. In the event that a member is unavailable for a group call they will be informed of any updates via Facebook Messenger.

Skills and Jobs

venture capitalism refers to a process where a private equity investor provides capital to business with a unique product that has a high potential for growth and/or a competitive advantage, venture capitalist stand to make a large return on investment should the product or business be successful as our project currently stands it lacks the potential to be commercially viable, let alone have a high potential for growth, as a result the following changes will have to be made to the projects scope to increase its potential growth given an additional six months(26 weeks) to expand upon the project prototype:

- text to speech adventures are not a very profitable genre of video games due to evolutions in video graphics, our product need to compensate in other areas,
- integrate cross platform support, at launch the project only supports Microsoft windows 10, increasing support to include smaller operating systems can expose you to new audiences especially if those audiences aren't currently well supported and have little alternatives, windows is only 80 percent of the pc video games market Linux macOs chrome make up 15 per cent of new customers, the lightweight nature of text to speed adventures gives us an advantage when porting to other systems, as long as it has a keyboard, it should be relatively easy to port over,
- video games as a medium often seek to differentiate themselves from similar programs by pushing new technologies and innovating the use of machine learning would allow players grater freedom to respond to prompts in a creative manner allowing them, creating a sense of accomplishment when solving problems games that make use of machine learning is a growing market AI DUNGEON PROBLEMS solved by our program, development of a text parsing machine learning model which gets better post launch, this could also compensate for the lack of graphics,
- narrative based video games are often judged by length, length matters and a game that's too short like our prototype would likely not sell CITE LENGTH MATTERS, a longer story may allow us will allow us to use the genres unique strengths, of which is having no graphics, this allows us to focus on a less interaction,

to ensure we can meet the deadline whilst providing a product that meets achieves the newly expanded scope, following positions will be required:
its important to note the each of the positions hired will likely provide unique skills and work in area's that the group can otherwise not substitute, this is because the team already has 5 developers although amateur and inexperienced it would be remiss to ignore such human resources. as a result all developers hired will need strong independent

working skills

- *Software Developer* - a software developer will be needed, Software developers are professionals who create,test and debug programs, the first software developer hired for the this project will be part of the main development team and will segmented work as part of the overall product; the work competed must meet certain specifications the developer hired will make it possible to improve the code base, from something made in 3 weeks by amateur programmers, into a professional product that can be sold for money, the developer hired must have the technical creativity required to solve problems uniquely and be fluent in .net that are used to write the code for programs.

- *IT Project Manager* - a project manager is an individuals who specialises in coordinating the efforts of a team of programmers/developers to complete the project, a project manager will be required to ensure the work of five inexperienced developers and 4 professionals all combine to meet the objectives of the overall projects, a good project managers minimises duplication of work, compartmentalises the project and allocates tasks in such a way to ensure the project is competed on time to a high quality of standard, the project manager will need to not just lead the project but also provide their expertise in ensuring the project has a clear and strong direction, whomever is hired for the job will likely become the new head of project, so care will have to be taken to hire a competent individual with the best interests of the group in mind, the project manager will ensure that all of the new objectives as a result of the expanded scope are completed or changed to be more achievable should it be impossible to achieve on time.

- *Machine learning engineer* - to implement natural language processing, we will require a text parsing system that makes use of machine learning, which facilitates the hiring of a machine learning developer, the machine learning developer will create and implement a data science model to the final product, our natural language processing system will likely be based on an existing open source implementation to make it easier for a single individual to not just implement the model, but to audit, train/retrain and overall transform our aspiration for a natural language processing system into an actual system, whomever hired will need to be extremely experienced and highly qualified, the success of the project will require the successful implementation of the machine learning engineers work.

- *Software Developer (porting)* - another software developer will be required, this developer will be in charge of porting the program to other operating systems, the process of Porting programs is a very complex and in explored in further detail in the additional information section, what is important to understand is the work required of this developer will not just impact the ports, but likely require the refracting, and rewriting of sections of the main program as to make the source code platform agnostic.

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role: Machine Learning Engineer(Natural language processing)

"In Memory Of Dane" is a small Melbourne based start up looking to shake up the Video Game Industry, the indie video games developer aims to release unique video games that make use of machine learning to reinvent how users interact with the medium.

"In Memory of Dane" at its heart is a company about people, making our customers happy and making our employees happy, we offer unlimited sick leave and other non-monetary compensation on par with industry leaders.

job specific:
We are looking for a Machine Learning Engineer with a passion for natural language processing to create core systems for an upcoming video game, a strong candidate for the role will be able to work independently and will have a high level of competence in the disciplines of data science and programming, candidates will also require a strong understanding of machine learning and natural language processing techniques.

your responsibilities will include:

- working as a solo unit to complete organisation goals and objectives
- Designing and developing machine learning software to process player input
- working with remote computing
- understanding natural language processing
- making use of machine learning techniques
- conttinue learning about state of the art techniques in the field of machine learning

skills and requirements:

- 10 years of experience as a Machine Learning Engineer or similar role
- BSc in Information Technology, Computer Science, similar field
- Ability to write robust code in .Net Framework
- Ability to work alone to create key systems
- Strong communication skills
- An analytical mind with problem-solving abilities

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role: IT Project Manager

"In Memory Of Dane" is a small Melbourne based start up looking to shake up the Video Game Industry, the indie video games developer aims to release unique video games that make use of machine learning to reinvent how users interact with the medium.

"In Memory of Dane" at its heart is a company about people, making our customers happy and making our employees happy, we offer unlimited sick leave and other non-monetary compensation on par with industry leaders.

job description:
in memory of Dane is seeking an experienced IT Project Manager, as a project manager the candidate will be responsible for the completion of time sensitive projects, and are expected to use their leaderships skills to aid them in managing team of both experienced and new developers, candidates will expected to debrief investors and key stakeholders regularly; outside of their management responsibilities candidates will be expected to have lots of experience working with Microsoft .NET framework.

your responsibilities will include:

- keep up to date with industry trends and market movements
- Ensure that employees are following operational security protocols
- Supervise and direct IT personnel
- Debrief investors and executives
- working as a solo unit to complete organisation goals and objectives
- mentor ship

skills and requirements:

- 10 years of experience as a Software Engineer/Developer or similar role
- at least five years of experience as a Team Leader
- BSc in Information Technology, Computer Science, similar field
- Ability to write robust code in .Net Framework
- Ability to work alone to create key systems
- Strong communication skills
- An analytical mind with problem-solving abilities
- Proof of previous success

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Group Reflection

Jarrod - What worked well, I believe the assignments that were assigned to each member were well-designed, as each team member who worked on something gave it their all and accomplished it well. Each item of work was delivered effectively.

What could be improved, The communication process as well as the timely completion of activities could have been improved. Because of the incapacity to communicate, there was frequently almost double work as a result of people failing to inform the group of their activities. Furthermore, when work was assigned, the things that were required were not provided, therefore some work was completed but not appropriately.

At least one thing that was surprising, One thing that surprised me was how easy it was to assign work and accomplish it whenever we did arrange a time to meet. However, once participants were given a task that was within their skill set, the quality of their work improved dramatically.

At least one thing that you have learned about groups One thing I've learned about groups is that scheduling consultations when everyone is available is quite problematic. When there is no contact, it is also difficult to know what work is being done.

Remember to include in your section on Tools how well you think your GitHub log of activity reflects your group's work on this assignment. The GitHub log from this assignment doesn't entirely reflect the log from this assignment as we also have many edits and uploads on Teams, Facebook Messenger, Google Docs and vb.NET. However the work is all there and there are many audit trails that can be followed.

John - The group was contributing more work alongside each other earlier on than in the previous assignment, meaning paired work was becoming easier. Sections of work were getting done faster despite having lots of problems with our communication tendencies. Although we had work done, we did also have another member leave the group which I found quite shocking. It definitely did not make any of us feel any better about the group's standing or assignment work, but they cannot be blamed for that. Of course to reiterate some points, group members picked up works that was left to other members who could not do it entirely by themselves which was fantastic but even still the lack of overall group communication was concerning at times.

Michael - What went well was that the members of the group were contributing to the assignment and the jobs assigned to each member were completed way sooner than expected. However there wasn't much communication between the group members because of different time availability or they weren't checking the messages. We also had a member leave the group in the middle of the assignment so his job had to be completed by other members of the group.

What was surprising was that some group members voluntarily helped complete the jobs of the member that left.

Tinotenda -Having had more experience working with my groupmates, a lot more went right in this assignment compared to the former one. All members of the group contributed what they said they would contribute in a timely manner. Once again showing how specialisation of tasks throughout the group task leads to higher quality work being produced that everyone is comfortable with. Coming out of assignment two I stated that group communication was lacking.

That has not changed as we finish assignment three. This may be a quirk of the individual members making up the group or related to the nature of the work. One thing that surprised me was how similar sections between assignment two and assignment three required reworking. I learnt that individuals made up for each other's weaknesses in some way. Our audit trail now represents the work that was contributed by individual group members to a much higher standard than displayed in assignment two. This can be seen in the application that I have created which utilises the Google Drive Rest API and the Github Commit API which produces a chronological list of changes/work done to the assignment. The tool will be available on the project Github and in the artifact section of the report.

Travis - What went well with the group was the fact we finished most of our work and began editing much earlier than we did during the last assignment, already starting to edit the document a week before the submission date. However we had some major difficulties in communication as work was done at different times and meetings were still impromptu as we scrambled to get a schedule started. We also had problems with a group member leaving us after the first week, putting us a week behind on website building and certain project related work.

What was surprising was that some group members showed initiative and completed other people's work. Also, we lost another group member, Dane, just like how we lost Oscar during the first group assignment. I have learned that it is not possible plan fully ahead as there are always unforeseen issues that will arise during group work i.e. Dane leaving.

The Github log of activity will mainly show the people that worked on the website and won't show everyone's contributions as most of the work is first entered into Microsoft

Teams or our group's Google Docs.

group - What went well with the group work was that all members completed the majority of the project related tasks before the second week of the assignment.The group is also happy that everyone already began editing the google docs a week before the submission date, affording more time for creating the artefact and building the website.

Nevertheless, we had problems relating to communication within the group. These problems mainly stem from the departure of Dane trotman from the group at the beginning of the second week of Assignment 3. The problems included the group being confused about what work needed to be done because of the void left by Dane. We also had issues with gathering everyone together for scheduled group meetings, instead choosing to meet at impromptu times during the week whenever we were all available. The last issue is the lack of work seen in some areas of the assignment that we had to redo during the last night of the assignment when we should have only been putting things together into the website. We could have improved on these issues by having regular meetings everyday on Teams as well as everyone having Teams on their mobile devices so they can receive notifications during their commutes and everyday travel.

We found the departure of Dane trotman to be a big surprise to the group, we did not expect for another group member to leave halfway through the semester so soon after the last group member (Oscar Lee) had left. We also all found the amount of work done by some members to be surprising due to some people doing more work than they were originally told, doing other people's work and confusing members on who had done what when we checked in on things that were to be edited.

We all learned that no matter how hard we try, we cannot predict what will happen during an assignment. We recognised that planning ahead could only get us so far until something unexpected happens and we have to adapt. To improve, we found that having multiple alternative plans in case of issues arising within the group had to be created.

The Github log of activity will mainly show the people that worked on the website and won't show everyone's contributions as most of the work is first entered into Microsoft Teams or our group's Google Docs.

John has contributed by completing the skeleton of the website, John also edited 'Roles', he also did three quarters of 'Risks', wrote most of the storyline and worked on landscape. Thus John has contributed 22.5 percent of the work.

Travis assigned tasks, he also completed 'Aims', completed 'Scopes and Limits', created the backend of the application, as well as 'Group Processes and Communications'. Thus Travis has contributed 22.5 percent of the work.

Tinotenda has had editorial oversight of the report, he did 'Skills and Jobs', compiled 'Team Profiles', 'Plans and Progress', and 'Tools' (where he made a database to find

google doc work entries). Thus Tinotenda has contributed 22.5 percent of the work.

Jarrod worked on the website, he designed the frontend of the application, he also did a quarter of the 'risks' section, completed 'Testing', and edited the story of the game. Thus Jarrod has contributed 22.5 percent of the work.

Michael started 'Roles', started making descriptions of app snapshots, and began working on 'Landscape'. Thus Michael has contributed 10 per cent of the work.