***Assessment 2 – Team Project***

**Team Name:** Energetic Imperials

**Personal Information**

**Caroline Burt**

My name is Caroline, I was born in Adelaide, South Australia in March 1970. I have 3 older brothers who still reside in Adelaide along with my elderly parents. I know live in the Blue Mountains region of NSW after moving around to various towns in NSW due to husband’s work. I have a lovely husband and 2 gorgeous children (who are really no longer children – 20 year son and 17 year old daughter – but they still need their Mum from time to time). My hobbies include walking my 2 fur babies (2 miniature dachshunds – black and tan), going 4wd with the family and friends and when the weather is a bit warmer we go out waterskiing at the gorgeous Lake Lyell which is not too far away from where we live. My student number is 3861634. My IT interest has come about from moving to my current role which I commenced in September 2019 as Technical Services Coordinator and the reason for studying this course to get more knowledge of the terms that all my IT colleagues use during our meetings. My IT experience is mainly on the use of software which I use continuously everyday in my work environment and social life. Our team name is Energetic Imperials – meaning we are all Idealistic, Passionate and Energetic.

**Robert Roper**

My name is Rob, I was born in Ballarat, Victoria on the 12th of March 1990. I grew up there and attended Ballarat and Clarendon College where I completed year 12 in 2007. From then till now I have worked in a diverse range of jobs, from machine operating, working in bars and clubs and as a prison officer.

I then moved to Melbourne in 2019 to live with my partner Siobhan. We now live in Brunswick West with our little border terrier puppy, Scout.

I am currently working as an Operations Manager for an equipment hire company and have recently started studying Information Technology online at RMIT.

**Geoffrey Lloyd**

**Thomas Rix**

**Rhean Doyle**

**Chloe Buzza**

My name is Chloe, I was born in Narrogin, Western Australia in May 1994. I am from an Australian Caucasian family and have two older brothers. I was brought up with no religious beliefs and speak only English at home. My hobbies include playing hockey, exercising, spending time at the beach, renovating my home and watching sport. I am currently studying a Bachelor in Business majoring in Financial Planning through RMIT and my student number is 3644620. My interest in IT is limited to the skills I need for work, social media and discussions with my brother who is a computer programmer. My IT experience follows this trend and is limited to what I use for work, committees I am on and what my brother has shown and taught me. In Introduction to IT assignment 2, our team name is Energetic Imperials.

**Team Profile**

Meyer-Briggs Test:

Chloe - ESTJ

Caroline - ESFJ-A

Robert - INTJ

Geoffrey - INFP

Thomas - ESTP

Rhean –

Chloe’s profile as an ESTJ shows her to be organised, loyal, a team player and hard working as well as a potential leader. These personality attributes will all be helpful in our team to work together and stay on track. However, she has noted a lack in IT experience so she may not be the best candidate for the team leader in this case. Chloe and Caroline tend to have similar profiles and should attempt to combine their skills. Caroline, being an ESFJ-A has good social skills which will help keep the team cohesion at a high level. Caroline also has efficient workload management and administrative skills, to go with Chloe’s organisation skills, this will hopefully help the team progress well and meet targets for a timely submission.

Robert is an ideal addition to an IT group assignment such as this, being an INTJ means he is innovative with his ideas and eager to solve problems, this will be an asset for the coding within the assignment. His personality type also strives for improvement opportunities which may help our assignment reach a high standard. Robert and Geoffrey look like they are going to work well together as Robert is keen on improvement and Geoffrey, being an INFP is highly creative and imaginative. Geoff’s creativity and imagination will help our webpage design and give it an individualised edge.

Geoff may need the help of Thomas’s energy and Caroline’s social skills as he has mentioned his communication and team skills may be his downfall. Being an ESTP Thomas is a thrill seeker and a peacekeeper; he may not find many thrills in this assignment however having a person who is willing to settle disagreements will be valuable to the team if a dispute should arise. Thomas’s energy is welcomed to the group. \*need to add Rhean

Learning Style Test:

Chloe - Visual

Caroline - Visual

Robert - Tactile

Geoffrey - Auditory

Thomas - Auditory

Rhean –

We all have different learning styles, Geoffrey and Thomas are auditory, Robert is tactile, and Chloe and Caroline are visual. While working in the group we should be understanding of each members learning preference and attempt to explain what we are doing or what should be done in a way that suits auditory, tactile and visual learners. Having a diverse set of learning styles may assist in the production of our project ideas and web page. \*need to add Rhean

Big 5 Personality Test:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Trait | Openness | Conscientiousness | Extraversion | Agreeableness | Neuroticism |
| Chloe | 54% | 85% | 96% | 67% | 12.5% |
| Caroline | 48% | 77% | 50% | 77% | 33% |
| Robert | 60% | 69% | 44% | 50% | 54% |
| Geoffrey | Medium | Low | High | High | Low |
| Thomas | 56% | 65% | 56% | 58% | 33% |
| Rhean |  |  |  |  |  |

In the Big 5 personality test all team members rate above 40% for extraversion and above 50% for agreeableness. A score of over 40% for extraversion will mean our communication levels will be high and scores of over 50% for agreeableness will mean we are able to interact well as a team and compromise to come to decisions. Chloe has scored 96% in extraversion and should attempt not to be too overbearing in group situations. We all rate relatively low in neuroticism which will mean team morale will remain relatively high, we should attempt to support Robert as much as possible, as he has a higher score here. Both Chloe and Caroline have scored relatively low in openness indicating they may not be as creative, luckily this is a stronger asset for Robert, Geoffrey and Thomas. Everyone has scored relatively high in conscientiousness, other than Geoffrey, meaning that all members are determined and organised. Geoffrey has acknowledged his need to work on his team interaction and this can be supported by all group members. \*need to add Rhean

**Ideal Jobs**

Chloe – Senior Financial Planner

Caroline – Junior DevOps Programmer (Website Design)

Robert – Game Developer and Programmer

Geoffrey – Full Stack PHP Developer

Thomas – Emerging Technology Analyst

Rhean – Chief Information Officer

Chloe has been very realistic with her relationship to IT and has chosen an ideal job that is vastly different to all other group members, a Senior Financial Planner. Chloe will need to be proficient in her computer skills and some financial planning specific computer programs, such as XPLAN, however she will not need to do specific programming. The similarities Chloe’s ideal job has to other group members ideal jobs are limited to, working on a computer for most of the day and having good communication and team skills. Chloe and Rhean’s ideal jobs both involve them leading a team and will require efficient leadership skills.

Caroline (Junior DevOps Programmer), Robert (Game Developer and Programmer) and Geoffrey (Full Stack PHP Developer) have all chosen relatively similar jobs. In these jobs Caroline, Geoffrey and Robert will all developing programs and writing code to assist their chosen company advance in productivity and useability. Caroline will specifically be helping develop user friendly computer systems and apps for both staff and customers to help with the sales and marketing of makeup products for her company. Roberts role is different in that the company he works for will be contracted to write program and develop games for other companies to sell to consumers. Geoffrey will be working as a software engineer for a company developing next generation cloud-based products in a specific coding language called PHP.

Thomas and Rhean have also chosen similar ideal jobs, Thomas as an Emerging Technology Analyst for BHP and Rhean as a Chief Information Officer for Prestige Consulting Group Pty Ltd both involve them making decisions and reporting on the technology standpoint and future direction of their respective companies. Thomas’s ideal job involves development and execution of research projects that analyse how his company is managing and progressing in emerging technology. Rhean’s ideal job is more involved in the implementation and decision making on what technology will be used within the company going forward, the budgets for that technology and measuring the functionality of the technology.

**Tools**

Link to group website:<https://energeticimperials.github.io/>

GitHub Repository: <https://github.com/EnergeticImperials/EnergeticImperials.github.io>

What we have done:

To create our team website (Energetic Imperials), we have used a combination of communication tools, code editing tools and the canvas website. Visual Studio Code was used to edit the html file that runs our team webpage. Visual Studio Code is a free source-code editor made by Microsoft. We found this software very intuitive and simple to use. We used a HTML template from a site called “tooplate” (see references) which runs all the CSS and Java for the webpage. We then edited the HTML and removed sections that we did not want whilst adding our own information. We used Github to host our team repository so that all of us could access the files we used to create the webpage and report. To share files, we also used canvas. Canvas was helpful for file sharing and communication, however, our main communication tool that we used was a chat group we created on Whatsapp. This was very helpful as we could all stay in contact even if we where busy.

Refection: How the audit train on Git repository represent our groups work

Needs to be done towards the end of assignment

**Industry Data**

**Thomas**

**IT Work**

Interview conducted on Friday 3rd July at 11.00am with Daniel – Technical Services Manager.

Daniel’s title is Technical Services Manager, and his role is to ensure availability, support and security of all the IT and phone systems.

Daniel works in the Private Health insurance – Highly regulated and challenging low margin business. Other types of work Daniel is involved in is really anything that involves any electronic equipment and often in compliance.

Daniel interacts with all people across the business as he runs projects that will change things for everyone, they are sales, service, support, Marketing, finance and compliance people. Daniel’s interactions with other IT professionals is part of his role as he runs the technology team directly and support the digital/web team, they are DBAs, Support officers, Digital developers and designers as well as project managers. He does not have much interaction with Members directly though he does respond to issues and feedback they raise through the Member services team.

Most of Daniel’s time at work is spent dealing with problem solving – usually software related and automation trying to save time by automating mundane tasks while the most challenging aspects of his work is changing management as the pace never stops increasing.

Finally, Daniel shared an example of the work he does that best captures the essence of the IT industry which is the short version: Problem – Find Solution – Install/Execute – Test – Test again – Finally Implement – and keep repeating until your meeting or assisting in the business strategy.

**IT Technologies**

What does it do? (600 words)

*Clouds, services, servers*

Cloud computing is the delivery of computing services – servers, storage, databases, networking, software, analytics and more – over the Internet (“the cloud”). Companies offering these computing are called cloud providers and typically charge for cloud computing services based on usage.

Whether you run apps that share photos with millions of mobile users or support critical business operations in your organisation, the cloud is a technology providing quick access to flexible and cost-effective IT resources. When it comes to cloud computing, you do not have to invest in hardware in advance or spend a lot of time managing it. You can access as many resources as you need almost immediately by paying only for what you use. Cloud computing provides an easy way to access servers, storage, databases and a full range of application services over the interest. Cloud providers operate and manage the network-attached hardware needed for these application services, providing and using the resources you need through a web application.

*Cybersecurity*

Cyber security is how individuals and organisations reduce the risk of cyber attack.

Cyber security’s core function is to protect the devices we all use (smartphones, laptops, tablets and computers), and the services we access – both online and at work – from theft or damage.

It’s also about preventing unauthorised access to the vast amounts of personal information we store on these devices, and online.

Cyber security is important because smartphones, computers and the internet are now such a fundamental part of modern life, that’s it’s difficult to image how we’d function without them.

*Blockchain and cryp*tocurrencies

A blockchain is a decentralised database that chronologically and securely records transactions. Given its data is resistant to modification, blockchains in business are being explored in a variety of industries due to their high security performance.

Cryptocurrency is a digital currency where encryption techniques are used to regulate the generation of units and verify the transfer of funds, operating independently of a central bank. Bitcoin is one example of cryptocurrency. Cryptocurrency short-circuits the need for time-consuming administration logs of maintenance contracts and tasks.

*Natural Language Processing (NLP) and chatterbots*

NLP is a form of artificial intelligence (AI) that allows chatbots to understand and respond to the user’s message. Artificial intelligence is the science of making machines and computers do tasks that require human intelligence. So NLP essentially falls into the ocean of AI and plays a super important role when it comes to building chatbots. Without NLP, chatbots wouldn’t be able to differentiate between certain phrases. For example, we need NLP to help give context to the chatbot so that it understands the difference between “Hi” and “See ya.”

What is the likely impact? (300 words)

*Clouds, services, servers*

Over the past two decades, the cloud computing model has change the way that most enterprise organisations manage their information technology systems and resources. In the pas a company that want to develop IT capabilities was required to establish its own on-premises IT infrastructure. That meant leasing a data centre, bearing the up-front capital costs of new computer equipment and developing in-house capabilities to develop and maintain applications. For many small and medium sized organisations, the massive technical and financial requirements of building and maintain IT infrastructure were cost-prohibitive.

Cloud computing has created the opportunity for organisations to access the data storage and computing capabilities that they require, on an as-needed basis and with a significantly reduced up-front cost, instead of establishing their own on-premise IT infrastructure, a company can pay to rent cloud infrastructure and the related capabilities and components from a third-party cloud service provider such as Amazon Web Services (AWS), or Google Cloud Platform.

*Cybersecurity*

While cyber security tactics are evolving, so are successful cyber attacks which if successful can cause major damage to your business. Cyber security threats don’t discriminate – all individuals and organisations that use networks are potential targets.

Lack of cyber security can impact on substantial financial loss arising from theft of corporate information, financial information (eg bank details or credit card details), theft of money, disruption of trading and loss of business or contract. Reputational damage and erode the trust your customers have for you which can lead to loss of customers, sales and reduction in profits.

Data protection and privacy laws require you manage the security of all personal data you hold – whether on your staff or your customers. If this data is accidentally or deliberately compromised, and you have failed to deploy appropriate security measures, you may face fines and regulatory sanctions.

*Blockchain and cryptocurrencies*

Blockchain technology has massive possibilities that will impact the future as we know it, and 80% of banking experts say that the blockchain technology will cause many changes in the next 20 years. Blockchain will change the way we handle and manage online transactions which will more than likely disrupt the banking and financial industry. Any transactions that are carried out through the blockchain system are much more secure and transparent.

Businesses would be prone to using the blockchain system because of its various benefits. These benefits include time and cost efficiency, time-saving (and time is money in business), privacy, security, fraud reduction, smart contracts, record keeping, and decentralization. Besides, blockchain storage costs can reduce the price of cloud computing up to 50%-100%. Why would a business avoid using blockchain technology?

Some businesses have already started to implement and utilise this technology. For those who haven’t, it is only a matter of time until the trend catches on. Business such as banks and insurance are ones that blockchain would benefit in a significant way. For now, the benefits seem to outweigh the negatives, but this will remain to be seen as this technology gets carried out over the next couple of years. One thing is for sure, the world as we know it will definitely be changing whether we like it or not.

*Natural Language Processing (NLP) and chatterbots*

Chatbots have become highly imperative for businesses to gain recognition in today’s competitive market. Brands are able to connect with their clients and interact with them in a personal way via chatbots. With the potential of chatbots to provide customer service like never before, brands are able to increase sales. As a result, chatbots can provide opportunities to improve brand engagement, help enterprises achieve business growth and make financial gains. Not only businesses but also customers are loving this technology. The hassles of waiting for long hours to get in touch with customers care executives get eliminated. Chatbots can provide answers to customers even during non-operational hours. Due to chatbot’s prompt replies and 24/7 availability 69 percent of customers today prefer conversing with chatbots rather than humans, therefore chatbots have become a must have for business to survive. Can’t help highlight the importance of NLP here.

How will this affect you? (300 words)

*Clouds, services, servers*

The cloud is a term we talk about in our lives today and is a part of just about everything we do.

Social media with Facebook, LinkedIn, Twitter, Instagram and Pinterest, there is a social media platform for everyone (15 million Australians are participating in one social network or another). All of these social networks are cloud-based services and store user information in the cloud.

Entertainment for watching Netflix or YouTube, use Spotify to stream your music, or play games online, you’re using the cloud.

Personal storage if you use DropBox or Google Drive to keep backups of documents or share work with colleagues, you’re using the cloud services.

The cloud is having a major impact in our lives and online behaviours. For example the cloud is pushing us to adopt every-more substantial internet connections. Cloud computing is also helping us to become more aware of security than ever because we’re putting evermore personal information on there. Overall, however, the convenience that cloud services represent, and the ability for cloud services to fit with our increasingly mobile and active lifestyles (being able to access any of your cloud services on your phone, for example), makes the cloud an indispensable part of our modern lives.

*Cybersecurity*

Let’s face it; we live in a digital world using social media, emails etc. Identity theft is a hug issues, where hackers steal an individual’s personal information and sell it for profit. This also puts the personal safety of an individual and his or her family at risk.

Our work lives, personal lives and finances have all begun gravitating toward the world of internet, mobile computing and electronic media. Unfortunately, this widespread phenomenon makes us more vulnerable than ever to malicious attacks.

Cybersecurity keeps us safe from hackers, cyber criminals and other agents of fraud.

*Blockchain and cryptocurrencies*

The social impact of blockchain technology has already begun to be realised and this may just be the tip of the iceberg. Cryptocurrencies have already provided doubts over financial services through digital wallets, the rollout of ATMs and the provision of loans and payment systems. When considering the fact that there are more than 2 billion people in the world today without a bank account, such shift is certainly a life changer and can only be a positive one.

Decentralizing away from governments and the control over people’s lives will likely be embraced by many and the social implications can be quite significant. One only needs to consider the spate of identity thefts that have hit the news in recent years. Handing the control of identification to the people would certainly eliminate such events and allow people to reveal information with trust.

Taking it one step further, blockchain technology is well placed to remove the possibility of vote rigging and all of the other negatives associated with the current process. In certain countries, we have heard of voters being intimidated or worse for polling stations that have been shut down by governments in an attempt to control the outcomes in a world where true democracy has been brought into question. Of course, with a new technology, there are new obstacles and problems that will come but the cycle goes on and those new problems will be solved with more sophisticated solutions.

Natural Language Processing (NLP) and chatterbots

We’ve all been there before, phoning up customer services with an urgent problem only to be greet with: “Thank you for waiting; we are currently experiencing an unusually high volume of calls.” And we all know just how frustrating it can feel to be left hanging on the line.

With a customer services chatbot, this need never happen again. Unlike humans, chatbots can’t be overwhelmed by high call volumes. To these bots, handling multiple requests is a piece of cake – and they’re available 24/7, seven days a week. Sounds better, right?

**Project Ideas**

**Overview**

Energetic imperials will be creating an app that assists people in a time of crisis. The app will help people stay connected to others, have professionals to discuss mental health challenges with and keep updated with changes in the current climate and news. At this stage, the app would be primarily based around support for those who have tested positive to COVID-19 with the opportunity to use it for other health issues and crisis’s in the future. We chose this as our project due to the current climate people around the world are living in and our recognition of individuals struggling with the isolation associated with COVID-19.

**Description**

Our app will include the following features within different tabs in the app:

1. Access via a chat room or phone number to mental health professionals for help for those users who are struggling with the many different aspects involved with a crisis like COVID-19. Users will be able to turn notifications on for this section if they have chosen to message a health professional so they can see when they receive replies. Examples of the struggles that professionals may be able to help with include depression due to isolation and a such a large change in lifestyle, anxiety from the economic and social environment, abusive relationships from trapped environments etc.
2. A chatline where users can interact with other individuals who may also feel isolated due to a positive test or who are struggling with their symptoms or lack thereof. People will be able to chat to others in the same or similar situation as themselves, either as themselves or anonymously if they so choose. Hopefully, this chat system will allow users to talk about their experiences and troubles associated with COVID-19 and find people that are in similar situations to them to help each other feel supported and less isolated. This section will also allow for notifications to be turned on if a user wishes to know when another user has replied to them.
3. A section where people can upload handy tips and tricks to help others get through COVID-19 in a successful and positive way. This may be lists of essentials for a 14-day isolation period for those either testing positive or being in contact with COVID-19 or those returning from overseas. This section may also include lists of activities or projects that others have found enjoyable through their isolation periods.
4. A volunteer’s section where those who are healthy and able to access goods and services and want to help those struggling can access and offer help and support. This may include things such as picking up essential supplies for people and dropping them to their houses or even doing game or puzzle swaps for people in isolation.
5. A government update and news section that includes the current COVID-19 restrictions that are in place within the user’s area as well as any government updates, press releases and news updates for the current crisis. Notifications for this section may be turned on to allow people to have real time updates of the COVID-19 environment.

**Tools, Skills and Technologies Required**

In order to successfully make this app our team needs to have:

* Modern coding languages such as HTML5, Java, C++, Objective-C, Swift and or C#
* Skills in cloud infrastructure e.g. Microsoft Azure or Amazon Web Services
* Cross platform capabilities e.g. able to adapt to Android, iOS or Windows
* Skills in data engineering
* A way to make the app secure e.g. OAuth
* Good team cohesion including open and clear communication, clear goals and efficient leadership

**Outcome**

A successful outcome will be an app that helps those living in the current COVID-19 climate have a less isolated, less traumatic and information enriched experience. The success of the app will also see less people struggling with mental illness that originally predicted when we eventually get though the COVID-19 pandemic.

**Feedback**

**Group Reflection**

**References**

[1]"Free HTML CSS Templates", *tooplate*, 2020. [Online]. Available: https://www.tooplate.com/. [Accessed: 28- Jun- 2020].

[2]a. Mark Otto, "Bootstrap", *Getbootstrap.com*, 2020. [Online]. Available: https://getbootstrap.com/. [Accessed: 28- Jun- 2020].