COSC2196 Assignment- Task 1
My Profile

GitHub Report https://github.com/s3950562/My_Profile

GitHub Pages https://s3950562.github.io/My_Profile/

Personal Information

Name	Timothy Nancarrow
Student No.	s3950562
Student Email	s3950562@student.rmit.edu.au
Nationality	Australian
Languages	English

Background Information

My name is Timothy and I am a 31-year-old Australian currently living in Melbourne, Australia. I grew up in far western NSW working at a local Hobbies and Electronics store and a Bed and Breakfast from the age of fourteen. After I completed my Higher School Certificate (HSC), I relocated to Adelaide, Australia to pursue further education and expand my horizons.

While completing a Bachelor of Marketing and Management at the University of South Australia, I began to work within the Real Estate industry where I grew and developed professionally for 10 years, eventually becoming a large portfolio manager within a company specialising with International Students and the Australian Education System.

Due to the experience and connections made personally and professionally, I have had the opportunity to travel domestically and abroad, visiting countries including Malaysia, Singapore, Kuwait, and Dubai. During these travels, I would immerse myself within the culture and would always be eager to try, learn and experience the life in the moment including languages, cultures, food, events, and more.

Education

My education includes completing Higher School Certificate, a Bachelor of Marketing and Management, and a Certificate IV in Real Estate Practice. I am currently undertaking a Bachelor of Information Technology with RMIT via Open Universities Australia.

Personal Interests and Hobbies

My main personal interests fall within the space of gaming and personal entertainment - I enjoy a wide variety of genres and styles - and even stream to Twitch in my down time. Since beginning my Twitch channel in 2021, I have enjoyed focusing on building an inclusive, safe, and welcoming community.

Further, in addition to achieving growth within my community, I have also been fortunate enough to join the Aussie Pride Stream Team (LINK XXXX), furthering my audience, and connecting myself to streaming peers who share the same values in creating LGBTQIA+ inclusive spaces online.

Interest in IT

During my teenage years, I was employed at a local Hobbies and Electronics store, where my main duties were to assist the technician. The teachings and experiences from this technician were built around the moto “I’ll show you, now you try;” giving me valuable hands on with a variety of tasks, such as soldering radios, building PCs, and troubleshooting through technical problems.

Later in schooling while undertaking an IT course for the HSC, I was selected to undertake Work Experience within the IT department of the local hospital, that similarly dealt with hardware and cabling, but also networking, troubleshooting, and software maintenance. Due to my interest in the placement, I would return to do placement at the IT department for the second run of the work experiences at the request of the Hospital Management.

I initially started my university studies in a Bachelor of Information Technology, however, due to expanding interests I changed my major into Business and Marketing. Despite this, I personally continued to have an interest in IT that has recently carried over to streaming on Twitch using programs such as OBS, Stream Elements, and more.

I chose RMIT due to my previous experiences with the institution, and positive word of mouth from alumni and faculty. I also found that above all competing Universities, RMIT has the most approachable and accessible administration process. However, I did enter RMIT via Open Universities for several reasons: mainly the only aspect and the flexibility of time management. RMIT to me is a leading and innovative education provider that I was proud and excited to join with for my current journey.

By completing my studies at RMIT with a Bachelor of Information Technology, I am expecting to build on my pre-existing knowledge, while also expanding my base knowledge and confidence within the IT sector that will help launch me into a career that I can continue to grow, develop, and succeed in.

Ideal Job

Backend Software Engineer at Apple Inc. (Focus on Health)

https://jobs.apple.com/en-au/details/200329482/backend-software-engineer-health

Overview

Backend Software Engineers are essentially the builders for software application, in the case with this position at Apple Inc. The Backend Software Engineer role has a focus within Health Software and server engineering, affectively managing, optimising, and developing API (Application Programming Interface) and web application for the server or backend of the Health Services function within the Apple ecosystem.

The scope of this role suggests that it would be overarching into areas including collaborative relationship management, designing, implementing, and maintaining scalable backend services and system development for cross platform/infrastructure.

This position appeals to me as it has focus on Health and its application with technology and people that can be as natural as wearing a watch or ring. I have a passion in helping people and making change for the better of all; I believe that technology can continue to be innovated, developed, and implemented with health applications, whether it be focused on specialised devices or everyday consumer products.

In my opinion, the recent global pandemic has facilitated and incentivised the broadening of technology to be utilised into the health systems, personal management devices and general consumer-based products where possible.

Skills Required

The role outlines the requirement for 2 or more years of professional software engineering experience as a minimum, in conjunction with experience in programming languages including Java, Scala, or Python. This role is a goal to reach and work towards throughout my education and my entry level career path.

There is an expectation for knowledge with web services protocols and standards such as HTTPS, JSON, and REST for the role. Further, the understanding and expertise with:

- Database systems and data model design for data storage, retrieval, and overall mapping the data flows from front to end.
- Cloud-based infrastructure and platform services for the integration with cloud services, and the streamlining of data flows.

Communication and relationship skills are emphasised with focus on communicating effectively within the organisation, both cross department and within one's team. This would be due to the nature of the wide-spanning role into several areas within the organisation, and externally with stakeholders and partners.

Current Skill Level

My strongest skills currently would be based around communication, collaborative working, and relationship maintenance. This is due to my previous experience working as a portfolio manager managing relationships with stakeholders including Universities, financial investment companies, single line and multi-line ownership structures, and individual parties.

Additionally, there was the internal aspects of financial planning and maintenance, project development and administration, business planning, and leadership that required communication inline up and down the organisation.

In addition, self-learning and development was imperative to identify potential opportunities or threats that may influence the business plan and organisation. Legislative changes, contractual obligations and negotiations additionally emphasised the importance for self-learning.

Between the education offered throughout the Bachelor of Information Technology, and my own self-study, I am confident I will be adept in the technical skills required, such as understanding web protocols, standards, programming languages such as Java and Scala, and a competency in cloud-computing and its structure.

Development Plan

The path to undertake to be qualified for this job will include educating and practicing the technical aspects required. By doing so, I additionally laminate my ability of self-development of aspects in IT area for ongoing progression.

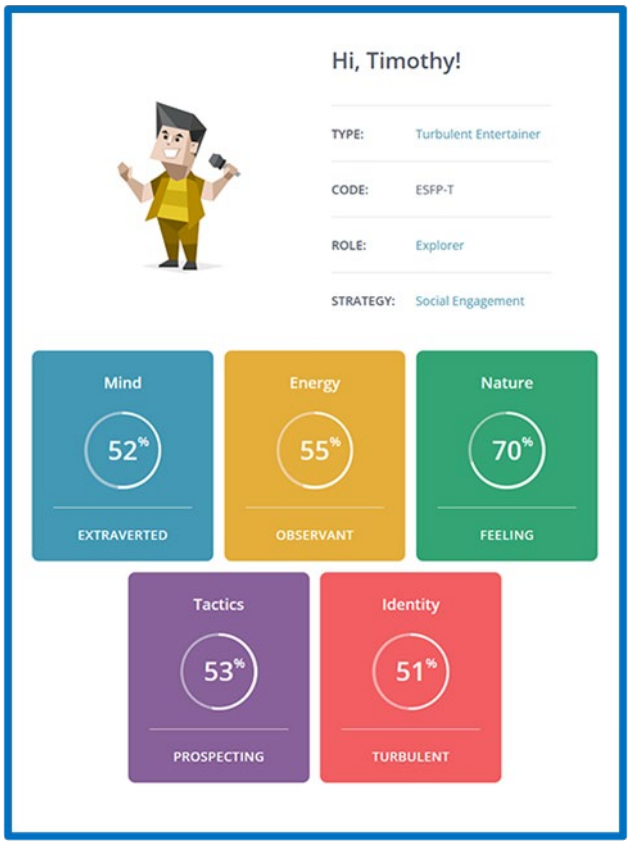
Concepts to achieving technical skills include, but not limited to the self-learning via resources online or prescribed through providers such as Open Universities, Coursera and CodeAcademy:

- Software Engineering Experience: Investigate opportunities for entry Software Engineering roles or internships are organisations such as Australia Post or CommBank.
- API and JavaScript development: Undertaking the subjects Programming 1 and Further Programming within my current degree in via RMIT further developing my JAVA language constructs and APIs.
- Scala development: Working through online programs and resources for Scala learning via avenues such as Coursera.com which offers courses including functional programming principles, functional program design, and parallel programming, all focusing on the Scala language.
- Web protocols and standards: These will be touched on throughout my current degree with RMIT, however further learning and development with online resources will assist in growing confident with the use and practice of web protocols and standards.
- Cloud-based infrastructure and platform services: RMIT offer a subject of Cloud Computing that is available as an elective which I can pursue. The prerequisite of Programming 1 is required, which addresses JAVA and APIs assists in my development earlier mentioned.
- Database systems and model design: RMIT offer a subject of Database Concepts that is available as a core subject I will undertake once completing the prerequisite of Introduction to Information Technology and Introduction to Programming.

Personality Profile

The results overall do display my personality traits of my teamwork and leadership, both in professional and personality contexts. I acknowledge that I am an empathetic person with which I've been able to adapt to both personal and professional settings.

Myers-Briggs Test



These results show me that I tend to be resourceful and practical, which is supported by my preference in visual learning. I have difficulties in concentrates while reading and usually take several reviews to digest the information presented. I am extroverted when I am comfortable, however in settings that I am not familiar with the surroundings I take moments to settle in.

I describe myself of being quite aware of the feelings of others and the environment itself, by understanding body language, facial reactions, and the general audience, therefore taking in considerations of feelings when making decisions.

I am confident that these results show how I have been able to build a community from streaming with regulars tuning in each stream, as well as professional leader to others. Therefore, I am confident this will also be a strength within a team setting despite being based online.

Learning Assessment Test

Being a visual learner is not a surprising result, as for as long as I have known, I've always learned better visually or practically than by written steps. This has always led me to areas of more visual or reactionary tasks such as: streaming uses many visual effects and assets that even if there is coding involved, I can quickly create what is going to be seen on the viewers side.

Professionally, I would regularly create and implement visual data tracking for reporting purposes, this would assist me to articulate to management or stakeholders as well as for my own visual understanding on how we are tracking.

In personal settings, I'd rather read comics then books, watch a YouTube guide then read a step by step. Not in all circumstances, however often I will have both resources available to view and use visual cues to prompt my understanding of the texted guide.

Creativity Test

These results align with my understanding of myself in the creativity context. I am a very much curious individual who would regularly test or try something new as it may result in a better outcome and way to achieve it; I like to do things to make them as efficient as possible for all involved.

Further, many ideas that are creative, efficient, and fulfilling should be explored as regardless of the outcome, the journey may lead to other ideas to work on; I actively foster a creative environment in personal and professional settings due to this.

However, my persistence score is the weaker of the results, which also supports the Myers-Briggs results being ESFP where I can become stressed with too much structure, being micromanaged, or forced into decision making where the information isn't full at my disposal.

Project Idea

Overview

For live streamers, beauty is in the detail, and one typically wants to ensure everything can run as smooth as possible. However, streamers often must divide their focus to entertaining a live audience while running several programs in the background and actively monitoring their overall systems performance.

This proposal is the development of a versatile Chatbot application that promotes the user (the streamer) to spend more time on content creation, leaving many of the small tedious tasks to Chatbot to control, coordinate and action as required; whether it be a step-by-step action, individual command or an event response, this concept for a Chatbot application can make the life easier of streamers in many different arrangements.

Motivation

My motivation around developing a Chatbot application derives from my personal experiences, both positive and negative with alternatives, and feedback from fellow streamers within the community. Additionally, having ADHD which tends to impact my memory, focus, and reaction speed during live streams, the concept of a flexible Chatbot application for creating and trigger actions, moderation and overall interaction is very attractive. Any reduction to the steps before, during or after a stream, leads to more energy that can be focused on the entertainment value.

Another key motivation for this project is due to my recent shifting of the content I produce from traditional gaming orientated content to a IRL (in real life) based stream. This has resulted in two very different styles of streaming that I want to explore as a content creator. However, this has raised a unique dilemma.

The dilemma is that for every stream that the main category changes between IRL and gaming, there are steps to undertake to manually change from one setup to the other, and then it's required to reoccur for the next stream. This is because of the difference in atmosphere between both IRL and gaming streams compared to each other – additionally separating the content to be archived separately would be a less confusing for the community, and analytically more precise with the data obtained from each stream.

However, the factors of time and effort to achieve this change each stream makes the idea less desirable as well as increasing the overall risks of human error or forgetfulness. From this, the idea of a Chatbot presented a unique opportunity; the development of an all-rounded Chatbot

application to handle many of the objectives that automation should be able to achieve with a command; in its essence, a streamer-orientated shortcut application.

Description

Chatbot would include a desktop application installed on the user's PC, allowing the user to connect via their own streaming account with Twitch via Cross-Account Authentication. This will also allow the user to run the Chatbot application from their own primary account. Logging in to the users main streaming account would be required as this will allow Chatbot to control the backend aspects of the stream.

The application would also allow the user to nominate a secondary account as the Chatbot, within the terms of the Twitch Terms of Service, meaning the user can utilise a secondary Twitch account for the purpose of customisation and uniqueness. For example, the user 'Adam_The_Streamer' can create a second Twitch account under the pseudonym such as 'Adom_The_Robot', which will be the account that will send messages within the streamers chat under the control of Chatbot itself.

Once logged in to the software, the user will be able to view a control-centre-like interface, which will display the analytics of users in chat, active chatters, total subscribers, total followers, and total views. In addition, there will be displayed a menu, settings option, and options to clear the chat of messages. There can be customisability here with buttons including slow mode, followers only mode, but as this can be programmed in the Chatbot as an action response to activate either as a moderator or as the streamer, quick access buttons can be assigned placement for access on the control centre interface.

The concept of Chatbot includes several components; differentiated by its way of handing identifiers from the Twitch API to form conditions, allowing the user to view, use, combined and edit into specific outcomes as effectively building blocks. They can then be utilised and adapted with other blocks to create a chain of events bound by conditions.

This has the potential to be utilised and leveraged processes of sending or receiving chat messages, in chat moderation, donations, video highlight clipping, sharing and/or social media posting, timers, events, games, external programs initiation and actioning as sequence, control of broadcasting sources, and so on.

User Interface

Commands which are triggered by an explanation mark (!) followed by text sent within the streamers chat, this will include functions to set cool downs, user level required to use, and allowing for additional command conditions with each main command, i.e. the 'Shoutout' command can be triggered by *!shoutout, !so, !shout*, or off any input decided by the streamer. Note, the user can also use conditions here to trigger the commands.

Chatbot Timers that are used to set either individually or as a group. Chatbot Timers trigger based on time and can be ordered or randomised for output. The user will be able to input the command or action desired and set the interval of how long the timer will trigger.

Actions where the user will be able to connect commands they've created previously or create additional blocks to create a chain. Here the user will be able to set conditions that are met that trigger the outputs selected.

The Library will display the itemised commands, actions and timers for the user to view, review and quickly edit or shut down.

Viewers which are log and keep information regarding the viewers that appear on the 'viewers list' from Twitch, this log can include total time viewing, messages sent, and status. This will also allow the streamer to access and modify any commands or specific conditions relating to this user.

Tools and technologies

To develop this project, the tools and technology required would be focused on programming languages such as HTML, CSS and JavaScript. Further with JavaScript utilisation, Node.js is required to execute the coding from the browsers interface.

API access for applications that Chatbot will need to communicate with for processes and actions, this would include Twitch, YouTube, Discord, Twitter, and Open Broadcast Software such as OBS.

Finally, compilers, code editors and GUI designing software to build the software within its entirety. The Chatbot application will not be Cloud-based, therefore understand the performance of the application will also be required which may be built in as log files.

Skills Required

Web development understanding and knowledge of HTML, CSS and JavaScript for the interaction with web-based platforms.

JavaScript programming knowledge and base understand and use of Node (JavaScript) for programming the bot and application. Additionally, other languages including Python, Scala and C++.

API understand for the desired programs to interact with, at a minimum, the Twitch API is required.

Understanding of the platforms of which the Chatbot will interact with is vital to tailor the experience with the targeted user. It is important to ensure the command and conditional triggers are suited in a way that will be useful within the scope of the audience and consumers (the viewers and streamers of Twitch).

Outcome

The desired outcome of the project is to develop, deliver, maintain, and grow an effective and efficient Chatbot application for a streamer to use. There are alternatives available for users, however if we can develop a Chatbot that is able to do as many of the automation as possible, as well as be a highly versatile Chatbot with its command and condition structure, this project could be a benefit for many streamers who are looking to simplify their activities and get back to making engaging and enjoyable contact.

The future development potential is also exciting, and constantly growing. The opportunity to explore and allow for Cloud integration would be one avenue. Regularly, new applications, plug ins and hardware are released targeting this market. If Chatbot can build and developed on for adaptation at its core, the leverage that this Chatbot application could have within this growth could be limitless.

Reference List

Twitch Developers. n.d. Authentication. [online] Available at: <https://dev.twitch.tv/docs/authentication> [Accessed 20 March 2022].

Jobs.apple.com. 2022. Backend Software Engineer, Health - Jobs at Apple (AU). [online] Available at: <https://jobs.apple.com/en-au/details/200329482/backend-software-engineer-health> [Accessed 17 March 2022].

Bierly, T., 2020. GitHub - thomasbierly/IIT: Introduction to Information Technology. [online] GitHub. Available at: <https://github.com/thomasbierly/IIT> [Accessed 12 March 2022].

Bitly. 2022. Bitly | Custom URL Shortener, Link Management & Branded Links. [online] Available at: <https://bitly.com/> [Accessed 25 March 2022].

Developer.mozilla.org. n.d. CSS basics - Learn web development | MDN. [online] Available at: <https://developer.mozilla.org/en-US/docs/Learn/Getting_started_with_the_web/CSS_basics> [Accessed 20 March 2022].

16Personalities. n.d. Free personality test | 16Personalities. [online] Available at: <https://www.16personalities.com/free-personality-test> [Accessed 17 March 2022].

How-To-Study.com and SOAR Learning, I., n.d. Determine My Learning Style. [online] How-to-study.com. Available at: <https://www.how-to-study.com/learning-style-assessment/> [Accessed 17 March 2022].

Testmycreativity.com. n.d. Free online creativity test - TestMyCreativity. [online] Available at: <http://www.testmycreativity.com/> [Accessed 18 March 2022].

Node.js. 2022. Node.js. [online] Available at: <https://nodejs.org/en/> [Accessed 21 March 2022].

Open.edu.au. n.d. Online Courses, Degrees & Subjects | Open Universities Australia. [online] Available at: <https://www.open.edu.au/> [Accessed 23 March 2022].

Rmit.edu.au. n.d. RMIT University. [online] Available at: <https://www.rmit.edu.au/> [Accessed 25 March 2022].

Twitch. n.d. Twitch. [online] Available at: <https://www.twitch.tv/p/en/terms-of-service/> [Accessed 19 March 2022].

W3schools.com. 2022. W3Schools Free Online Web Tutorials. [online] Available at: <https://www.w3schools.com/> [Accessed 15 March 2022].