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Final Project Reflection: COVID-19 Chatbot

In the time that I will be creating this project, Corona Virus is on everyone’s mind. Even though it’s a big issue, it seems people still aren’t receiving the proper information or maybe they aren’t able to understand due to language barrier. I got the idea from my own parents, sometimes they’ll need some form of information, and usually they don’t know who to ask or call, and if they do sometimes the language barriers becomes the issue.

When I first started this project what I had in mind was to deploy a bot that answered a bunch of frequently asked question about COVID-19. This was going to be something completely new to me because I have never created a bot, so I didn’t even know where to begin at first. So, I was first learning how to a build a bot, and there were so many ways I could have done this, I knew I wanted to actually have this available to anyone who needed it. I would have started out by sharing it amongst those I know, then see what happened. I began to look where or with what could I create a real bot and deploy it. I came across Microsoft Azure, which was a completely different beast in its own. Now, I knew that I was going to work with some of Azure’s features, such as QnA Maker. What QnA Maker is, it’s a cloud-based web API that was holding all of the questions and answers I had collected. Most of the FAQs where from the CDC website, and some states FAQs like New York. What I wanted to do was somehow web scrape the questions and answers, then add them to an Excel Sheet. That was an issue because I was having trouble uploading the excel sheet to QnA Maker. So the next step was to upload them as PDF files, and have the QnA Maker distinguish between question and answer. Again, it wasn’t working. Even thought they said they supported these types of files, it was working for me. I also didn’t want to have it hard coded into my program because I was a simple way of being able to update this on the fly. What I ended up doing was manually input all of the questions into QnA Maker. After I had done that, I was able to make the API to connect my program to the QnA maker. Although, in order for me to actual test my program and debug this program, I need a bot emulator. Thankfully, Microsoft also had another tool named Bot Framework Emulator, which allowed for me to run the bot on my localhost. That emulator helped out a lot because I also had never worked with APIs, so was having a lot of trouble when trying to connect my program to QnA Maker. After a lot of trial and error I was able to get them connect and running.

I was able to get extremely far in this program, but I wasn’t able to deploy it for all to use. I believe if I had more time, I definitely could have completed that task. I was continue to work on this program and actually have it accessible for all to use. Some other things I would like to add is the availability of multiple languages, not just in English. Another addition I would like to add more features to this bot. I feel there isn’t much and it isn’t really appealing. I want the user experience to a great one. To improve the user experience, I would first need to change up how it responds. As of now, you can easily tell you’re speaking with a bot, but I would like to change that and make it seem like it’s a real human.

If I were to do this project again, I’d follow all the steps I had just done because working with Microsoft Azure was a great experience once I knew what features I was going to use, everything became much simpler. Now that I know how to create one, its extremely easy to do, and it was a great learning experience. I picked up so many new skills like creating a bot, working with APIs, learning to actually deploy a bot.