## 1. Write a reflection on your experience.

Learning how to develop chatbots is crucial for us because chatbots are no longer limited just to customer service. They are reshaping how we learn, work, communicate, and access information. There is a huge demand for chatbots, and it is projected that this market will reach \$1.43 billion by 2025 (Levy, 2024). This surge in adoption spans various industries, signaling a growing demand for professionals skilled in creating, deploying, and managing chatbot systems.

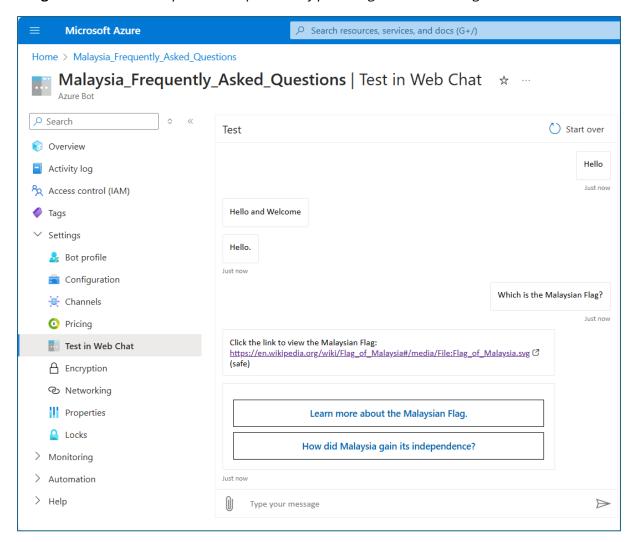
It was a fun experience working on this exercise. I learned how to create a chatbot with the video materials on Blackboard. I purposely chose the topic "Frequently Asked Questions in Malaysia by Tourists" for this exercise, as it would allow some of my classmates to learn a bit or two regarding Malaysia through the video submission. I also learned a couple of new facts while creating the questions and answers. My knowledge base consists of questions regarding general knowledge, culture, language, accommodation, travel, activities, money, shopping, facts, records, foods, and drinks.

Video designing is one of my hobbies and I truly enjoyed creating this video. I tried to make the video as informative as possible, by including images of the response as an overlay in the video, just to assist my viewers with a visual aid of what the response is. It was collectively a good learning experience.

# 2. What challenges did you encounter and how did you resolve them?

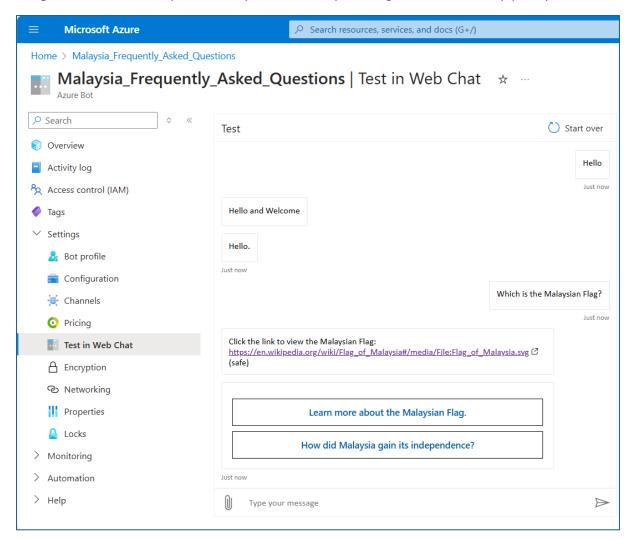
Since most areas of the exercise were straightforward, I didn't particularly bump into any major challenges. However, some minor challenges include trying to insert an image or video as a response to a question. I tried multiple ways to embed a chart, image, and video as a response through GitHub, Excel, and Bot Framework Composer. I was unable to accomplish it as I believe I need to learn more about how the Bot Framework Composer works. I tried with some codes was still unsuccessful. At the end, I just included a link that would direct to the particular image/response. Image 1 below shows a link that directs to the picture of a Malaysian Flag.

Image 1: The chatbot responds to a question by providing a link to an image.



Furthermore, choosing the appropriate follow-up prompts, for a question when updating the knowledge base. For instance, when the user asks about the Malaysian flag, I could link up other follow-up prompts such as giving the user options to learn more about the Malaysian flag or when did Malaysia gain its independence. I shouldn't add follow-up prompts such as what are the best foods in Malaysia when a user asks which is the Malaysian flag? It would be irrelevant. Image 2 below shows the appropriate prompts that followed with the initial response.

Image 2: The chatbot responds to a question while providing relevant follow-up prompts.



One thing I didn't like was that each time I amended the knowledge base, I had to deploy and create a new bot. I would prefer the system to automatically detect any changes and update it in the back office. This would allow me to directly test it in the Test in Web Chat option.

# 3. What resources did you find helpful while working on this exercise?

I found the tutorial videos in Blackboard really helpful from the beginning. I was easily able to create and deploy a chatbot simply by following those steps. I also used ChatGPT to learn about the Bot Framework Composer and to locate where is my language key. The Microsoft resources also came in handy for me when creating the bot. I referred to the document titled Tutorial: Create a FAQ bot for this assignment. Lastly, I also referred to YouTube videos to learn how to embed images as a response but was unsuccessful.

## 4. Conclusion

I believe learning to create a chatbot will also assist me in family businesses. The reason for this is that according to a recent HubSpot Research study, 47% of shoppers are open to buying items from a bot (HubSpot, 2024). I would personally consider buying through a bot too because the information provided by it is usually reliable, which will assist us, buyers, to make a purchase more conveniently and quicker.

## 5. References

- Levy, M. (2024, May 19). Why learning to use AI chatbots is crucial for your career in 2024.
  Dataquest. <a href="https://www.dataquest.io/blog/why-learning-to-use-ai-chatbots-is-crucial-for-your-career-in-2024/">https://www.dataquest.io/blog/why-learning-to-use-ai-chatbots-is-crucial-for-your-career-in-2024/</a>
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