NIP2 Task 1: Chatbot

WGU Introduction to Artificial Intelligence - C951

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**A. Explain the functionalities of the chatbot and how they will meet the needs described in the scenario.**

Using Pandorabots, I created a simple chatbot that recommends up to five computing jobs to a user based on their answers during a Career Advisement quiz. There are 5 questions in the quiz, with each question being on a 1 to 5 scale. If a user selects a 4 or a 5, they will be recommended a job and be asked if they wish to continue the quiz. If a user selects a 1, 2, or 3, then they will move on to the next question. When the user reaches the end of the quiz, there is a link to schedule an appointment with their career advisor.

**B. Identify five computing job types that your chatbot can recommend based on student interaction with the chatbot.**

1. Software Developer: Software developers use their knowledge of computer programming to design and build software.

2. UX Designer (User Experience Designer): A UX designer designs the experience an end-user will have when interacting with a company’s services or products.

3. IT Project Manager: An IT project manager helps to plan and implement various IT processes and projects.

4. AI Engineer: An AI Engineer helps to develop the tools, systems, and processes that allow AI to be developed, programmed, and trained.

5. Video Game Developer: A video game developer specializes in the processes and skills needed to create video games.

**C. Provide the generated chatbot code files to support the five identified job types from part B.**

Please see the zipped file named “c951wgu” included in the submission of this task.

**D. Explain how the chatbot training cases were selected and how you used artificial intelligence markup language (AIML) to enhance the functionality of the chatbot. Provide examples of the chatbot’s functionality that represent the selected cases at the end of the training process in support of your explanation.**

The chatbot I created simply recommends one of the five possible computing jobs, based entirely on the user’s answer for each question. Each question asks a user to rate on a scale of 1 to 5, with 1 being the lowest and 5 being the highest. If a user selects a strong rating by choosing a 4 or a 5, then a specific job related to the question is recommended. If a user selects a weak or neutral rating by choosing a 1, 2, or 3, then they will be asked the next question.

Training Case 1: A user uses the WGU Career Advisor chatbot and is asked to rate their level of enjoyment for video games on a 1 to 5 scale. The user enters a 5. The chatbot then recommended a career as a video game developer.

Training Case 2: A user uses the WGU Career Advisor chatbot and is asked to rate their computer programming knowledge and skills on a 1 to 5 scale. The user enters a 1. The chatbot responds to how the user’s computer programming knowledge and skills are growing and moves on to the next question. A user is then asked to rate their level of interest in artificial intelligence (AI). The user enters a 4. The chatbot then recommends a career as an AI Engineer.

**E. Create an installation manual for the chatbot that includes the web link to access the live chatbot in the Pandorabot platform.**

1. Through a browser, log into pandorabots.com.

2. Go to https://home.pandorabots.com/dash/bot-directory.

3. In the search bar, type and search for: “c951\_wgu\_task\_1”.

4. In the search results, select the “c951\_wgu\_task\_1” chatbot.

5. In the lower right, click the message icon “…” to open the chatbot message window.

6. Once the chatbot message window is opened, type “hi.”

**F. Assess the strengths and weaknesses of the chatbot development environment and explain how they supported or impeded the construction of the chatbot.**

The chatbot was created using Pandorabots, which has various strengths and weaknesses as a development environment.

Strengths:

1. Pandorabots is open source and uses Artificial Intelligence Markup Language (AIML) to create chatbots. AIML is easy to learn, flexible, and makes it possible for a user to create highly customized responses.
2. Pandorabots works on multiple channels and offers multilingual support. This is important as it ensures the chatbot can be deployed to and used by as wide of an audience as possible. Please note, 3rd party channels are only allowed with the “paid” version of Pandorabots.

Weaknesses:

1. In Pandorabots, a chatbot is unable to save information from one conversation to another. For example, if a chatbot developed in Pandorabots learns a user’s name in one conversation, if the same user uses the chatbot again, the chatbot will not remember the user’s name from the prior conversation.
2. In Pandorabots, a user always has to start the conversation, as the chatbot is not able to do so. This limits the chatbot’s ability to be used in a broadcast or sequence manner. Therefore, you are not able to schedule the chatbot to send a message for a specific time or date, due to a user always having to be the one to start a conversation.

**G. Explain how the chatbot will be monitored and maintained to improve the final user experience.**

One of the advantages of Pandorabots is that it includes conversation logs, in which you can review the conversations between users and the chatbot. Multiple benefits could be obtained by reviewing these conversation logs over time, including:

1. The chatbot’s career recommendations can be expanded and updated to ensure relevancy.
2. The chatbot’s language can be improved and updated to appear more friendly, conversational, and personalized.

**H. Provide a Panopto video recording that includes a verbal summary of the capabilities of your chatbot and an example of human interaction with the chatbot in which it provides meaningful career advice.**

<https://wgu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=922d2237-acc9-4be8-ba91-b0bc0183501a>

**I. Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or summarized.**

No outside sources were quoted, paraphrased, or summarized.