**C951 Task 1: Chatbot**Lydia Strough, WGU#00245262403/31/2023

**Section A: Explanation of Chatbot Functionalities**

Lydia, the career advisory chatbot, suggests one out of five career types (that require an undergraduate in computer science) after its user has answered a series of questions. Lydia considers the user's strengths and preferences, such as personality type, before recommending a career path.

**Section B: Computing Job Types**

Lydia suggests one out of the following five career types:

1. Project Manager
2. Tech Support
3. Computer Hardware Engineer
4. Data Scientist
5. Software Engineer

Each of these career types requires an undergraduate in computer science.

**Section C: Chatbot Code Files**

The chatbot code files are attached in the “lydia\_chatbot.zip” file. These code files support the**five** identified job types from section B, computing job types.

**Section D: Chatbot Training Cases**

Lydia suggests one out of the following five career types. Each career type is suggested to a user if the user follows a specific answer path. Below are the specific answer paths for each career type – these act as training cases for the chatbot.

1. Project Manager
   1. The user is an extrovert.
   2. The user enjoys taking on leadership roles.
2. Tech Support
   1. The user is an extrovert.
   2. The user would rather not take on a leadership role.
3. Computer Hardware Engineer
   1. The user is an introvert.
   2. The user enjoys working with computer hardware.
4. Data Scientist
   1. The user is an introvert.
   2. The user enjoys working with computer software.
   3. The user has a strong interest in math.
5. Software Engineer
   1. The user is an introvert.
   2. The user enjoys working with computer software.
   3. The user does not have a strong interest in math.

To enhance the functionality of my chatbot, I created buttons using the artificial intelligence markup language (AIML). With each question, the user was given a list of possible answers. This allowed for ease of use while navigating the chatbot.

**Section E: Installation Manual**

To access and use the chatbot, the user must follow these steps:

1. Through a browser, log into pandorabots.com.
2. Go to <https://home.pandorabots.com/dash/bot-directory>
3. In the search bar, type: “lydia”
4. Lydia, will appear in the search results as follows:

Graphical user interface, application

Description automatically generated

1. Select the chatbot from the search results.
2. In the chatbot message window, type “Hello”.

**Section F: Chatbot Environment**

**Strengths**: The chatbot programming environment, AIML, was simple to use which made the chatbot easy to create. Even though I had never used AIML, Pandorabot.com provided all the necessary information regarding the language, which made the chatbot’s production simple.

**Weaknesses**: Although AIML was simple to use, the language required that I consider all possible user inputs. This was mitigated using buttons. However, if I had decided against buttons, this would have made the chatbot build an overly complicated process.

**Section G: Monitoring and Maintaining**

Lydia, the career advisory chatbot, is not perfect. Future versions can be improved upon in several ways. Links can be added to user results to give the user quick access to job descriptions and other pertinent information. More jobs and more questions can be added to the program as well. Categories were named appropriately, and descriptive comments can be found throughout the code to allow for easy maintenance and code navigation. Maintenance and other inspections should occur every few months or with additions to the application (whichever comes first).

**Section H: Panopto Recording**

Below is a link to a Panopto video recording. The recording includes a verbal summary of Lydia, the career advisory chatbot’s capabilities, also an example of a human interaction with the chatbot.

<https://wgu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=384f02b6-883a-4614-a774-afd601207271>

**Section I: Sources**

No outside sources were quoted, paraphrased, or summarized.