**C951 (Artificial Intelligence) – Task 1**

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**A: EXPLANATION OF CHATBOT FUNCTIONALITIES**

The Chabot is designed in an attempt to minimize the excessive student’s queries to the career advisor. It suggests computer science graduates choose one of the five careers through basic questions about graduate’s interests and skills. After basic introductions, the chatbot offers users to select buttons instead of typing text to avoid grammatical mistakes. It also helps the chatbot to narrow the breadth of conversation and direct the user toward the main point. The chatbot suggests to users each job uniquely based on the buttons (filters) the user selects. Each button acts as a filter, allowing users to select the best match job with their choices.

**B: COMPUTING JOB TYPES**

The Chatbot advises graduates of one of these five computer jobs: Computer programmer, Web Developer, Project Manager, Network Engineer, and Graphics Designer. The first filter “math” divides jobs into 2 basic categories. Math-oriented jobs: computer programmer and Web developer are further divided with skillsets uniquely defines each job. The three other jobs that are not heavily based on math skills are further divided according to the leadership role. The project manager is a job that requires great leadership roles. And finally the other two jobs: Network engineer and Graphics designer as divided by their unique job required skillsets.

**C: CHATBOT CODE FILES**

Please find the other attachments.

**D: CHATBOT TRAINING CASES**

The training cases were selected based on two interests; “math and leadership” and the unique skillsets that explicitly characterizes one job. AIML was used to enhance the bot’s functionality through the use of buttons instead of tests as input. The buttons functioned like a filter helping the user to stay on the main focus of the conversation. The button also reduced the length of conversation helping users to match the job with their skills and interests. The following are cases demonstrating how buttons improve the chatbot’s functionality

Case 1: Subash is a fresh graduate who likes math and calculations. He is a team player and has really good problem-solving skills. He can understand the solution through algorithms and also can make an algorithm for his proposed solution. After learning about these traits my bot will suggest John a “Computer Programmer” job.

Case 2: Linda finds math complicated. She likes working indecently. She does not call herself a critical thinker but claims to be creative. She likes working with graphics and animations and has minimal knowledge of coding. As per her selections, the bot will refer her to a “Graphics Designer” job.

**E: INSTALLATION MANUAL**

Please follow the steps explained below to properly access and run the proposed Chatbot.

1. On your preferred web browser’s address bar, type [www.pandorabots.com](http://www.pandorabots.com) and press enter.
2. Complete Sign in or Sign up process. Once you reach your dashboard, On the left side of the webpage click the plus icon located next to the “MY BOTS” label.
3. Fill in the desired name in the form and make sure "Blank Bot" is selected in the context textbox.
4. Once Bot is created, Click the bot name > Edit > Code Editor.
5. Click “File” in the menu bar right above the AIML label. And select Upload.
6. Upload the downloaded zip files named as “c951task1code.zip .
7. Find and click the yellow round chat icon on the right bottom corner of the webpage.
8. Now you can interact with my career advisor Chabot.

**F: CHATBOT ENVIRONMENT**

The bright side of the bot was it was easy to get started with. The dashboard of IDE was quite user-friendly. The process of AIML language learning was made easy with all available resources and references. However, as I began writing the code I realized the limits of the development environment. Some essential GUI features were missing. For instance, there were very limited options to assign parameters for GUI elements. Additionally, the environment also failed to provide the possible breath of existing GUI-rich media. To summarize the program was a great learning experience. However, it could be better with the availability of other existing GUI-rich elements as HTML5.

**G: MONITORING AND MAINTAINING**

The Chabot will be hosted on the cloud. The user activity will be closely monitored on daily basis. Every week user inputs will be analyzed to evaluate if the bot is incapable to answer frequently asked questions by graduates. As the number of users per day increases the system processing power and memory will be upgraded. With active monitoring and maintenance, we will be able to expand the bots questioner library and handle the increased traffic.

**H: PANOPTO RECORDING­­­­­­­­**

Please find the attachment.

**I: SOURCES**

**References**

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