

# NIP1 — NIP1 TASK 1

## CHATBOT

### Part One

- A. The chatbot I created functions like a conversation tree. Each yes or no answer leads to a different branch of the tree that leads down to a specific career choice. And like most chatbots, the amount of people it can talk to at once is nearly limitless, allowing for a much larger volume of people being helped than what the career advisor is currently able to handle by themselves.
- B. Found a blog from a law firm's website (citation below) referencing the use of chatbots to automate some of the more tedious and low income tasks, such as creating legal documents known as non disclosure agreements (NDAs). Similar to the bot that I created, the bot known as "Automio" asks the client(s) a series of questions that the bot uses to generate the legal document. The bot cuts out the tedious questionnaires that a lawyer would have to give in a consultation with the client. And while the bot is asking the questions, the lawyer can supervise the questions, editing them as necessary to get to a legal agreement with the client. Once both the client and lawyer are satisfied, the bot puts them both in contact with each other so the process can continue. And on top of this being automated, the amount of different clients all simultaneously speaking with the bot is almost limitless. Just like my bot, the document is generated specifically for the client based on the answers to the questions asked, even if they are simple yes/no questions.
  - a. King, C. (2019). Retrieved from <https://autom.io/blog/5-lawyer-bots-you-can-try-now>
- C. My bot can suggest 7 different career paths: software developer, database administrator, web developer, network and computer systems administrator, information security analyst, computer network architect, and computer support specialist. If the user answers "no" to all questions, the bot suggests that the user reevaluate their strengths and interests in computer science.
  - a. The AIML code files are submitted in a folder along with this written portion.
- D. While training the chatbot, I implemented a blanket statement to cover all "wildcard" statements from the user. "I'm sorry, but I don't seem to have an answer for that. If you're confused, please start from the beginning by saying "Hello"." This statement directs the user back to the beginning of the conversation, allowing any entry by the user to still lead back to the conversation. The only disadvantage I have found by using a

blanket wildcard statement is being unable to properly respond if the user answers the question of “What’s your name?” with a single worded name. To help with this, I prompt the user to actually say “My name is...” I also trained the chatbot to understand a variety of different greetings (i.e. Hello, Hi, Howdy, Hello there). Any of these greetings from the user will still begin the conversation like normal. The rest of the conversation is driven by simple yes or no questions to help move the conversation forward.

- E. In order to optimize the user experience while using my chatbot, I started my chatbot from a completely blank slate template, and have the majority of the chatbots questions answerable with either yes or no button that is shown at the bottom of the question. This is primarily to help limit the number of wildcard responses that the chatbot would need to respond to, but also to really streamline the user experience.
- F. In order to use my chatbot in its current form, the user would need to go to [pandorabots.com](https://pandorabots.com) and create a free account. Once logged in, you should be able to start creating a new bot with the ‘+’ next to “My Bots”. This will allow you to create a new bot associated with your account. Give your bot a simple but descriptive name (in all lowercase letters), leave it set to English as the language, and click the drop down arrow next to “content” and select “import from Github”. On the next dialog box, choose “Select Repo by URL” and paste in the following URL address:  
<https://github.com/ArchAggie/wguc951careerhelper>  
Select “import,” allow it to overwrite some of the files by selecting “import” again, and finish the process by selecting “done” at the end. Now you have created a chatbot with all of my files in it. Finally, use the chat bubble in the lower right hand corner of the screen to begin chatting with your(my) chatbot. I would begin the conversation with a typical “Hello,” “Hi,” “Howdy,” or “Hello there.”

## Part Two

- G. The effectiveness of the chatbot will be measured by how easily users can reach the different career choices without skipping sections of the conversation. The chatbot’s efficiency could also be measured by how many people are able to use and receive helpful information from the chatbot at the same time, especially in comparison to how many would have been helped if the chatbot had not existed and the people were each met with individually.
- H. Some challenges faced while developing the chatbot was figuring out a way to allow the conversation to actually progress. Otherwise, you could simply input the corresponding text (or as AIML says, “pattern”) and the chatbot would give you whichever answer went with that input. Making the questions be answered with yes or no buttons prevents that from happening easily. Each answer send the conversation down the conversation tree by asking if you’re creative and if you answer ‘yes’, the pattern for the next response is “YESCREATIVE”. Then if you say ‘no’ to problem solving, the next pattern is “YESCREATIVENOPROBSOLV”. Since these are not typical conversational inputs, it is

highly unlikely for someone to just type that in to get the desired response. They actually have to participate in the conversation to get to the job choices.

- I. I would say the strengths of the bot development environment were the fact that pandorabots.com provides almost all of the knowhow for using AIML within their system and tutorials. Having never used (or even seen) AIML in use before doing this project, I was able to pick up the basics rather quickly. Whether from the tutorials on proper syntax, or from basic context clues after creating a default chatbot and taking a look at the code (also easy to find), figuring out how the program chooses what to say and when to say it was a simple process. The user interface while writing code also has specific buttons dedicated to creating categories, inserting postbacks, or even creating a simple typing delay to simulate the chatbot actually thinking about your statement and typing its own reply back to you. The development environment for creating the chatbot is easy to use to the point where I was able to focus primarily on forming appropriate responses and not worry too much about proper syntax.
- J. An audio and video recording of me using the chatbot will be uploaded along with the task 1 project files.
- K. Cited Sources:
  - a. Information regarding the career choices  
Profita, M. (2020, January 28). The Top 10 Computer Science Jobs. Retrieved April 29, 2020, from <https://www.thebalancecareers.com/top-jobs-for-computer-science-majors-20596>