Magpie Chatbot lab Name:\_\_\_\_\_\_\_\_\_\_

This page will be used to check off programs and submit your answers to questions. It saves us from printing off the entire 13 page packet. You must read the Student Guide to understand the assignment.

**Activity 1: Getting Acquainted with Chatbots. Answer the following**

Work with another group and have two different chatbots converse with each other.

Can you identify keywords to which your chatbot responds? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Think of several keywords and the responses they might cause.(Include the keyword and the response)

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**Activity 2: Introduction to the Magpie Class**

Demonstrate your program(s) to Mr. Smith to get the programming exercises checked off.

* \_\_\_\_ Responds properly to ‘dog’ or ‘cat’
* \_\_\_\_ Responds favorably to the name Mr. Smith
* \_\_\_\_ Responds properly to blank statements
* \_\_\_\_ Adds two more possible non-committal responses
* \_\_\_\_\_ Adds three more keyword response pairs.
  + Keyword: \_\_\_\_\_\_\_\_\_\_\_ Response: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Keyword: \_\_\_\_\_\_\_\_\_\_\_ Response: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Keyword: \_\_\_\_\_\_\_\_\_\_\_ Response: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

What happens when a keyword is included in another word? Consider statements like “I know all the state capitals” and “I like vegetables smothered in cheese.” Explain the problem with the responses to these statements.

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**Activity 3: Better Keyword Detection: Dry run the methods and record how the values change**

Trace the following method calls: (add more rows if needed.)

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| Val returned | statement | goal | startPos | phrase | psn | before | after |
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findKeyword("She's my sister", "sister", 0);

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| findKeyword("Brother Tom is helpful", "brother", 0);   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | Val returned | statement | goal | startPos | phrase | psn | before | after | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | |  |

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findKeyword("I can't catch wild cats.", "cat", 0);

findKeyword("I know nothing about snow plows.", "no", 0);

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| Val returned | statement | goal | startPos | phrase | psn | before | after |
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Repeat the changes you made to the program in Activity 2, using this new method to detect keywords.

Demonstrate your program(s) to Mr. Smith to get the programming exercises checked off.

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  + Keyword: \_\_\_\_\_\_\_\_\_\_\_ Response: \_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + Keyword: \_\_\_\_\_\_\_\_\_\_\_ Response: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Activity 4: Responses that Transform Statements**

Look at the code. See how it handles “I want to” and you/me statements.

\_\_\_\_\_\_\_\_\_\_\_ Have it respond to “I want *something*” statements with “Would you really be happy if you had *something*?” In doing this, you need to be careful about where you place the check. Be sure you understand why. For example:

Statement: I want fried chicken.

Response: Would you really be happy if you had fried chicken?

\_\_\_\_\_\_\_\_\_\_\_ Have it respond to statements of the form “I *something* you” with the restructuring “Why do you *something* me?” For example:

Statement: I like you.

Response: Why do you like me?

Demonstrate your program(s) to Mr. Smith to get these programming exercises checked off.

Find an example of when this structure does not work well. How can you improve it?

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*Remember that we are not doing Activity 5 at this time (however you are welcome to look at it if you are interested.)*