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Per. 6

Magpie Chatbot Lab

Activity 1

Chatbot: Elbot the Robot

Exploration Have several conversations with your chatbot and answer the following questions:

• How does it respond to “where do you come from”?

|  |
| --- |
| Most of my parts can be bought at better-stocked hardware stores and assembled by a typical high-school student. |
|  |

• What is the most interesting response?

|  |
| --- |
| I'm afraid you're in an endless loop. Maybe you should re-boot yourself. |
|  |

• What is the most peculiar response?

|  |
| --- |
| FATAL ERROR 42: OMISSION OF SUPERFLUOUS INPUT |
|  |

• How does it respond to “asdfghjkl;”?

|  |
| --- |
| I have to know your name first before responding to that. |
|  |

1. Can you identify keywords to which your chatbot responds?

It responded to keywords such as names and topics of discussion.

1. Think of several keywords and the responses they might cause.

Weather – causes the bot to talk about the weather

Name – gets the bot to say its name

Creator – bot talks about people who wrote it

Activity 2

What happens when more than one keyword appears in a string? Consider the string “My mother has a dog but no cat.” Explain how to prioritize responses in the reply method.

The keyword closer to the top is the word the bot recognizes. Prioritize responses by putting them further at the top of the if-else block.

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

The bot doesn’t recognize that the keyword is in another word. This means that the bot can’t recognize plurals and other forms of a keyword.

Activity 3:

Write the value of each of the variable psn, before, and after each time the program control reaches the point in the method indicated by the comment.

findKeyword("She's my sister", "sister", 0);

|  |  |  |  |
| --- | --- | --- | --- |
| Iteration | Psn | Before | After |
| 1 | 9 | “ “ | “ “ |

findKeyword("Brother Tom is helpful", "brother", 0);

|  |  |  |  |
| --- | --- | --- | --- |
| Iteration | Psn | Before | After |
| 1 | 0 | “ “ | “ “ |

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

|  |  |  |  |
| --- | --- | --- | --- |
| Iteration | Psn | Before | After |
| 1 | 8 | “ “ | C |
| 2 | 19 | “ “ | s |

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

|  |  |  |  |
| --- | --- | --- | --- |
| Iteration | Psn | Before | After |
| 1 | 3 | K | W |
| 2 | 7 | “ “ | T |
| 3 | 22 | S | w |

Activity 4:

How does it respond to:

• I want to build a robot.

• I want to understand French.

• Do you like me?

• You confuse me.

All of these statements give the random, other response.

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?

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

This structure doesn’t work well when there is more than just one verb between I and you. This can be improved by only using the word before you, or by somehow checking which words are verbs and only using those.