Name:   
Date:

Magpie Chatbot Lab

**Directions**: Make note of your responses to the following questions as you work through activities 1, 2, and 3 of the AP Computer Science Lab: Magpie.

# Activity 1

1. Which chatbot did you use?
   1. [The Professor, an educational chatbot.](https://www.pandorabots.com/pandora/talk?botid=935a0a567e34523c)
2. Paste your conversation with the chatbot below.

**You:**

What is your name?

**The Professor:**

My name is Peter, but most people call me The Professor.

**You:**

Where do you live?

**The Professor:**

I live in Cambridge in England.

**You:**

asdfghjkl;

**The Professor:**

That doesn't make sense!

**You:**

What question can't be answered with a yes?

**The Professor:**

What question can't be answered with a yes? Are you asleep? Ha ha!

**You:**

What bands do you like?

**The Professor:**

I like the Red Hot Chick Peas.

**You:**

Why did the man put his money in the freezer?

**The Professor:**

Why did the man put his money in the freezer? He wanted cold hard cash. Ha ha!

1. What was the most interesting or peculiar response? Why?
2. Think about your conversation with a chatbot. Identify key words to which you think the chatbot responds.
3. Suggest several key words and the possible corresponding responses.

# Activity 2

1. What happens when a key word 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.

1. The lab suggests using the trim method from the String class. How does it work? Show an example of a String value before and after the trim method is invoked.
2. Paste the code below showing the additional two noncommittal responses added to getRandomResponse.
3. Complete the table below. List the additional keywords and responses you added to the getResponse method.

| Keyword | Response |
| --- | --- |
|  |  |
|  |  |
|  |  |

1. 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. Did this impact any changes you made to the getResponse method?

# Activity 3

Trace through the following method calls. Write the value of the variables position, before, and after each time the program control reaches the point in the method indicated by the comment.

1. findKeyword( "She’s my sister", "sister", 0);

| Iteration | position | before | after |
| --- | --- | --- | --- |
|  |  |  |  |

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

| Iteration | position | before | after |
| --- | --- | --- | --- |
|  |  |  |  |

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

| Iteration | position | before | after |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

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

| Iteration | position | before | after |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. Your choice. Fill in the parameters and then trace the method call.  
   findKeyword( "", "", );

| Iteration | position | before | after |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |