The Magpie Lab

Day 1:

Spend the first 10 – 15 minutes explore the chatbots provided in ***Magpie Activity 1***.

- If you ask the same question over and over, do you notice a pattern?
- Can you identify a word, or set of words that the chatbot cues into? Type in multiple statements/questions using one word or set of words.

Prepare and explore the Magpie code.

Day 2 and 3

Magpie Updates

1. Have Magpie respond with "Say something please." If the user enters an empty String. (ie. `statement.trim().equals("");`)

2. Provide at least two(2) more noncommittal *RANDOM* responses.

3. Provide at least three(3) more keywords (or groups of keywords) with appropriate response.

4. Have Magpie *"play"* Rock, Paper, Scissors when a keyword from rock/paper/scissors is found such as "I have to write a paper today." Have Magpie respond with a random play, "I chose scissor. Scissors slices paper. I WIN!!!"
   Create a `private` helper method called `playRPS(String str)` to play and respond much like `getRandomResponse()`

5. Update Magpie to search for the keywords of "reverse" or "backward"

   Magpie will respond with one of your `getRandomResponse()` *statement* written in reverse.
   statement: "today is backwards day"
   response: "mmmH."
   statement: "I put my car in reverse."
   response: "erom em llet ,gnitseretnI."

   Create a helper method `reverseResponse()` to complete this challenge.

   Punctuation should still be at the end of the response.

Day 4

Better Keyword Detection

Currently Magpie will respond to “smother” as if it is “mother” and “know” as if it is “no”.

Assume that the following conditions are true for any keyword for which Magpie responds.

- The keyword is a substring of the statement.
- The keyword is either at the beginning of the statement or it is immediately preceded by a space.
- The keyword is either at the end of the statement or it is immediately followed by a space.

Create a helper method

`hasKeyword(String s, String key)` that will replace the use of **`indexOf()`**. **`hasKeyword`** should have a **`boolean`** return type

Day 5

Better chatbots look for groups of words, rather than a single keyword. Statements like “I like AP CSA” and “I like Math” have the form “I like *something*”.

They also use part of the original statement in the response. Respond with “What do you like about *something*.”

Also, create a response to “I want *something*” statements?

And a response to “I *something* you” statements?