Regex + Eliza
CSCI-UA.002
Regex is a Built-in Library in Python

A regular expression, regex (sometimes called a rational expression) is, in theoretical computer science and formal language theory, a sequence of characters that define a search pattern. Usually this pattern is then used by string searching algorithms for "find" or "find and replace" operations on strings.

The concept arose in the 1950s when the American mathematician Stephen Cole Kleene formalized the description of a regular language. The concept came into common use with Unix text-processing utilities. Today, different syntaxes for writing regular expressions exist, one being the POSIX standard and another, widely used, being the Perl syntax.

Regular expressions are used in search engines, search and replace dialogs of word processors and text editors, in text processing utilities such as sed and AWK and in lexical analysis. Many programming languages provide regex capabilities, built-in, or via libraries.

From Wikipedia
Regex is a Built-in Library in Python

- it is imported like this:
  ```python
  import re
  ```
Regex is a Built-in Library in Python

- you can find all the special characters used in Regex here: https://docs.python.org/2/library/re.html
import re

lines = input("what did he say?")
line = lines.strip()
line = re.sub(r'\b[Hh]im\b', 'her', line)
line = re.sub(r'\b[Hh]e\b', 'she', line)
line = re.sub(r'\b[Hh]is\b', 'her', line)
print(line)

From Allison Parrish’s genderswap.py
https://github.com/aparrish/rwet-examples
Eliza:

http://www.manifestation.com/neurotoys/eliza.php3
ELIZA

ELIZA is an early natural language processing computer program created from 1964 to 1966 at the MIT Artificial Intelligence Laboratory by Joseph Weizenbaum. Created to demonstrate the superficiality of communication between man and machine, Eliza simulated conversation by using a 'pattern matching' and substitution methodology that gave users an illusion of understanding on the part of the program, but had no built in framework for contextualizing events. Directives on how to interact were provided by 'scripts', written originally in MAD-Slip, which allowed ELIZA to process user inputs and engage in discourse following the rules and directions of the script. The most famous script, DOCTOR, simulated a Rogerian psychotherapist and used rules, dictated in the script, to respond with non-directional questions to user inputs. As such, ELIZA was one of the first chatterbots, but was also regarded as one of the first programs capable of passing the Turing Test.

From Wikipedia