Programming Basics

Programming Intro

Vocabulary

- **Programming language**: a language capable of telling a computer what to do

- **Python:** one of many programming languages. It is particularly popular for data science and AI

- **IDE**: Integrated Development Environment - a program that lets you write and run programs

- **Google Collab Notebook**: Google Collab notebooks let people collaborate on Python programs in the same way Google Docs let people collaborate on word documents
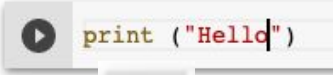
Next Up!

- We'll be creating our own chatbot! To do this, we'll first need to know the basics of programming!

Opening a Collab notebook

Instructions

1. In your browser, navigate to colab.research.google.com

2. Click at the bottom of the screen where it savs "New Notebook" **NEW NOTEBOOK**

3. In the box type `print("Hello")`

4. Click the "Play" button to run the code.

5. Under the box will appear "Hello" - this is called **output**
   It's what the program outputs to the screen

6. What do you think will happen when you type
   `print("Goodbye")` in that box instead?

Debugging

Vocabulary

- **Debugging**: finding and dealing with errors in your code

Try this!

- What happens if you missed the second quote:

```
print("Hello)
```

Vocabulary

- **Error message:** what the program sends you when you make an error in your code to help you figure out what it means

```
File "<ipython-input-2-b5735bb33791>", line 1
    print ("Hello)
SyntaxError: EOL while scanning string literal
```

- **Syntax**: the way you use words

- **EOL:** End of Line

- **String:** a kind of object in a program that is a "string" of letters, numbers, and symbols in-between quotes

Try this!

- What happens when you don't use parentheses at all?

ACTIVITY

- See how many different ways you can break your program.
    - What error messages do you get?
        - What do they seem to mean?

DISCUSSION

- What error messages did you get?

- What fixed them?