Student Handbook

Online Materials HB

For our modules created by scryptIQ we have created brand new online materials and content to help deliver our **Python Fundamentals**, **Networks**, and **Artificial Intelligence** modules. This means they will have quite a different look to **Data Handling** and **Machine Learning**, although all we retain the high quality we strive for.

Pyodide

Our new materials have an ingenious software called Pyodide running in the background. Pyodide has Python run inside the browser itself, so the code you see inside the materials has actually run live. This allows us to generate editable code cells, in which you can immediately test out what you've learned.

Types of Cells

Code cells that have a green output box below are fixed and can not be edited by you.

```
# Let's begin by defining two variables to use in our calculations:

a = 12
b = 5
```

```
# Addition:

a + b
```

```
17
```

However, those with a pink output box below and a pink **Edit** button, can have their code altered by the user and can be run independently each time. Variables from previously run cells, both fixed and editable, should be present in subsequent editable cells. However, refreshing the page will restart and refresh any previous actions.

The input() function

Converse to the `print()` function, which is used to send information **out** of a Python script and onto the console, the `input()` function is used to bring information **in**. When used, you can display a message on the console to the user, and allow them to type input in using their keyboard and - upon hitting return or enter - returns the collected input as a **string**.

> **NOTE**
>
> In Jupyter notebooks, `input()` creates an interactive text box below the cell. This is where you can type your input, and hit enter to complete the function's execution.
>
> Run the cell below, type your name into the box, and hit enter.

```
# To work in a browser this will generate a pop-up.
# If your browser blocks pop-ups, this may not appear.

name = input("Enter your name: ")
print("Hello", name, "!")
```

Run Code

```
Ready to run code!
```

There will also be **Practice Exercises** scattered throughout the materials. These questions should be quick problems to solve, focussing on the material you just read. Answering these earnestly should help progress your understanding much more quickly.

PRACTICE EXERCISE

4.

Have a play around with the different mathematical operations in the code cell below:

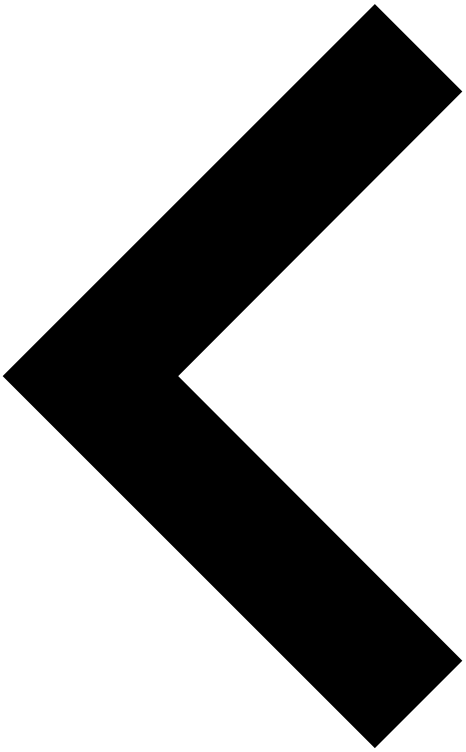
```
# You can edit these variables
x = 11
y = 4
```

Run Code

```
Ready to run code!
```

Pyodide Issues

Sometimes, but not often, a code cell will not render with Pyodide. To rectify this, just refresh the page. If this or any other issue occurs, please email us at *admin@learntodiscover.ai* or report it through our form (see **Course Feedback**).



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