Exercises

Session 1 Exercises

Exercise 1.1

Now that you've run your first program, try the following:

- Change the message to anything you want
- Repeat the code on multiple lines to output several messages
- Find out what happens when you remove different parts of the code (e.g. brackets)

Don't worry if something unexpected happens. Think about what you changed and why it might have caused it to happen.

Exercise 1.2

Type these lines into your **Python console**:

```
5 - 6
8 * 9
6 / 2
5 / 0
5.0 / 2
5 % 2
2 * (10 + 3)
2 ** 4
```

What does each one do and what is its output?

Are there any outputs you didn't expect?

Exercise 1.3

In your **Python console** type each of these

```
"Cat"
"Cat" + " videos"

"Cat" * 3
```

```
"Cat" + 3

"Cat".upper()
"Cat".lower()

"the lord of the rings".title()
```

What is the output for each one and why?

One of them causes an exception. Read the exception message. What do you think it means?

Exercise 1.4

In a new Python **file** called **cat_food.py**, create a program that calculates how many cans of cat food you need to feed 10 cats

Your will need:

1. A **variable** for the number of **cats**
2. A **variable** for the number of **cans** each cat eats in a day
3. A **print()** function to output the result

Extension: change the calculation to work out the amount needed for 7 days

Exercise 1.5

Rewrite **cat_food.py** to use string formatting instead of joining strings with **+**.

An example of string formatting:

```
user_name = 'sarah_1987'
age = 23

output = '{} is {} years old'.format(user_name, age)
print(output)
```

Session 2 Exercises

Exercise 2.1

Write a program that asks two questions using **input()** then prints the values that were