

Python Exercises

These exercises are designed to be incremental in complexity and teach you the basics of the Python language.

Part 1: Variables and types

Exercise 1. Determine the type of the following variables:

```
a=3
b='Hello World'
c=(1, 2, 3)
d=[1, 2, 3]
```

Use the python interpreter to help you with it.

Exercise 2. Try, using the python interpreter, to explain the difference between:

- A tuple and a list
- 123 and '123'
- 1 and 1.0

Exercise 3. Convert the following types:

- Integer value of the string '123'
- Float value of the string '123'
- String value of the number 123.1

Part 2. Control flow

Exercise 1. Write a program which asks the user for a number. If number is even print 'Even', else print 'Odd'.

Exercise 2. Write a program to print counting from 1 to 10:

- Using a for loop
- Using a while loop

Exercise 3. Write a program which prints all the divisors of a number.

Exercise 4. Write a program that iterates over a list and prints the numbers that are prime.

Exercise 5. Write a program that asks the user for a number and prints if the number is odd or even. The program should print "error" if the input from the user is not a number.