**Topic 4 – Activities – while statement**

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| Practice activity icon | Practice activity |

**Python Resources:**

[**https://www.w3schools.com/python/python\_while\_loops.asp**](https://www.w3schools.com/python/python_while_loops.asp)

[**https://docs.python.org/3/tutorial/introduction.html#first-steps-towards-programming**](https://docs.python.org/3/tutorial/introduction.html#first-steps-towards-programming)

[**https://www.w3schools.com/python/ref\_random\_randint.asp**](https://www.w3schools.com/python/ref_random_randint.asp)

**https://www.linkedin.com/learning/python-essential-training-2/loops?autoplay=true&resume=false&u=57684225**

**Exercise 1:**

Write Python code which displays the numbers 1 to 12 separated by tabular spaces.

The expected output should be: 1 2 3 4 5 6 7 8 9 10 11 12

**Exercise 2:**

Write Python code which displays the numbers 12 to 1 separated by commas “,”.

Make sure the last number is not displaying the comma after it.

The expected output should be: 12,11,10,9,8,7,6,5,4,3,2,1

**Exercise 3:**

Write Python code which starts with the number 1 and then displays the result of halving the previous number until the result is less than 0.001.

The expected output should be: 1.0 0.5 0.25 0.125 0.0625 0.03125 0.015625 0.0078125 0.00390625 0.001953125

**Exercise 4:**

Write Python code which generates and displays 10 random (integer) numbers between 0 and 50.

Note that each time this program runs the results are different.

**Exercise 5:**

Repeat your code from the previous task inside a new .py. In addition to generating the 10 random numbers, display the lowest of the 10 numbers.

**Exercise 6:**

Repeat your code from the previous task inside a new .py file.

In addition to the lowest number, display the highest and the average of the 10 numbers.

**Exercise 7:**

Write a program that simulates the roll of two six sided dice. The program should ask the user to guess the total sum of the dice.

The user has to keep guessing until they get the total correct, and the program should tell them how many tries it took.

An example of the expected output is shown below.

What do you think the total of two six-sided die will be? 6

The total was 8. Try again!

What do you think the total of two six-sided die will be? 4

The total was 11. Try again!

What do you think the total of two six-sided die will be? 10

The total was 10. Congratulations! It took you 3 tries to guess successfully.