



# Introduction to Python I (Exercises 02)

## Loops

- 1) Write a program that prints the numbers from 1 to 20 (using a for loop)
- 2) Write a program that print numbers 10 to 30 in increments of 2 (10, 12, 14, 16, ....)
- 3) Write a program that prints numbers from 100 to 85 in decreasing order.
- 4) Write a program that prompts the user for a number and then prints out a list of all the divisors of that number. A divisor is a number that divides evenly into another number. For example, 13 is a divisor of 26 because  $26 / 13$  has no remainder.
- 5) Write a program that prompts for a string and then prints all the letters in the string (one per line)
- 6) Write a program that prompts for a string and then prints it backwards. There is a shortcut way to this in python, but do it with a loop just as an exercise.
- 7) Write a program that prompts for a string and displays the vowels found in the string as well as how many vowels were found in total.
- 8) Prompt the user for a string and print out whether this string is a palindrome or not. (A palindrome is a string that reads the same forwards and backwards.)
- 9) Write a program that prompts the user for a number of lines and then prints the following pattern depending on the number of lines entered. (Example, if the user enters 5)

```
*  
**  
***  
****  
*****
```

- 10) Write a small menu with 4 items. Print a message letting the user know his selected choice.

1. Welcome to Python
2. Python is Fun
3. This could be a challenge
4. Exit

Every time the users select a choice (1 to 3) we print a message and then we print the menu again and wait for another choice to be entered. Once the user enters 4, the program ends.