



Introduction to Python I (Exercises 03)

Lists

- 1) Write a program that defines the following list:

```
countries = ["Canada", "Russia", "Mexico", "Poland"]
```

1.1 Print the list

1.2 Reverse the list and print it

1.3 Sort the list and print it

1.4 Copy the countries list to a new list countries_02

1.5 delete the last element from countries_02

1.6 Pop the first element from countries and save it into a variable called OneCountry, print OneCountry

1.7 Append the element "Spain" to the countries list

1.8 Extend countries with countries_02, and print countries
1.9 Find out how many times "Mexico" is found in the list, print the result.

- 2) Take a list, say for example this one:

```
a = [1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89]
```

Write a program that uses a "for loop" and prints out all the elements of the list that are less than 5. Remember to use a "for loop", because there are other ways of doing this, but for academic purposes you should use a "for loop".

- 3) Prompt the user for 10 integers (one at a time) and add them to a list (MyList). Then print the list using a for loop.
- 4) Write a program that takes a list of numbers (for example, mylist = [5, 10, 15, 20, 25]) and makes a new list with only the first and last elements of the given list. Print the new list.
- 5) Prompt for 10 integers (one at a time) and add them to a list (MyList). Check to see if the numbers 10, 5 and 3 are in the list and print a suitable message to let us know of their existence in the list.
- 6) Prompt for 10 integers (one at a time) and add them to a list (MyList). Then create a new list (MySecondList) which includes all the element of the first list without duplicates (for the time being use for loops for this exercise, we will see a different way of doing this later on).
- 7) Write a program that prompts for names and continues to prompt until you type either a 'q' or a 'Q'. Add all the names to a list and then print the names sorted in reverse order.