All the problems should be written in .py files. Then zip all the 5 files (i.e. Problem1.py, Problem2.py, Problem3.py, Problem4.py, Problem5.py), name the file name_last name_exam.zip and send those to the following email shahanearushanyan@gmail.com:

1. Write a program which gets a variable of type **String** as a user input (using the **input()** function) and calculates the number of numeric and non-numeric values. The output of the program should be of the following format:

The given string: la%a43la

Digits: 2
Non-digits: 6

2. Create the list **list1** with String values of your choice. Get 2 variables **str1** and **str2** of type String as command line arguments (using the module argparse), check when is the first time that **str1** appears in the list **list1** and replace that value by the value **str2**. If **str1** doesn't appear in the list **list1**, print "The value is not in list1". Print the value of **list1** before and after making the necessary changes.

3. Create the following list **['a', 0, 2, True, 'hi'].** Write a program that will try to print the 10th value of the list. Use the general exception (which will check any error) and a specific exception (which will check the error that arises in our particular problem). Both of the exceptions should print the text according to the python exceptions.

4. Create the class **cafe**.
Attributes:

name (the name of the cafe)
tables (the number of free tables)
menu = {"salad": "10$", "pizza": "20$", "ice_cream": "5$", "cake": "15$"}

Methods:

Reserve_table(self) - checks if there are any free tables, if there are, subtracts 1 from the original number of tables and prints the text "The reservation was made": Otherwise, prints the text "No available tables".

Checkout(self, food) - gets a variable **food** of type String as an input and prints the value of the order in the following format: “You have ordered **food.** You have a **x** dollar check.”, using the value of the variable **food** and the appropriate cost from the list **menu**.

Order(self, food) - gets a variable **food** of type String as an input, checks if that food appears in the menu. If yes, it calls the method **Checkout** with a value **food.** Otherwise, it prints the text “We are out of **food**”, using the value of the variable food.

Test the class creating some objects and calling class methods.

5. Load the dataset anomalies.csv into a dataframe. Plot the values using the plot() function. Mark the values that are >6 with a red marker.