Assignment 1

Submission Deadline: **10 April 2021 till 10:00 pm (on UCP Portal)**

Marks: 100

Note:

- This is an individual assignment.
- If the assignment is copied in even a single question you will get ZERO in the assignment marks.
- A quiz will be taken from this assignment in the very next class after the submission. The weightage of submission of this assignment will be 30 %. 70 % weightage will be taken from quiz. You can give the quiz only if your assignment is not plagiarized and is submitted
- No Late submission allowed

1. Write a Python program to convert temperatures to and from celsius, fahrenheit.

$$C = (5 (F - 32)) / 9$$
$$F = (9C + (32 * 5)) / 5$$

2. Write a Python program to check if number is divisible by 7 and multiple of 5, between 1500 and 2700 (both included).
3. Use the list in the cell below and write a function to return the maximum and minimum value in the list. The function will take the list an argument and return two values.
4. Write a function to return the 2nd maximum and 2nd minimum value in the list. The function will take the list an argument and return two values
5. Write a program to find the following statistics from a list. **Note: Don't use any built-in method for this question.**
    - Mean
    - Median
    - Mode
    - Variance
6. You have three strings each containing different text, but all three have some common words in them. Your task is to find the frequency of words in each string and with the use of dictionary and list.

    The word will act as a 'key' in a dictionary where the value is a list containing the frequency of that word in all three strings.

    For example Dictionary['the'] -> List[] -> frequency count. the index '0' will contain the count of str1 and '1' will contain the count of str2 and so on. Following are the sample strings:

    - str1 = "a quick brown fox jumps over the lazy dog"
    - str2 = "this course can be complex but not complicated if learnt properly"

Assignment 1

- str3 = "the boeing plane max 8 was grounded all around the world for technical problems"

7. Write a program which will return ticket price for the following scenario

	Mon, Tue, Wed, Thurs, Fri				Sat, Sun			
Visitor's status	OT	OT	M	M	OT	OT	M	M
Entry hour	6.00–19.00	19.01–24.00	6.00–19.00	19.01–24.00	6.00–19.00	19.01–24.00	6.00–19.00	19.01–24.00
	Ticket prices – $							
Visitor's age								
0.0–16.00	**5.00**	**6.00**	**2.50**	**3.00**	**7.50**	**9.00**	**3.50**	**4.00**
16.01–60.00	**10.00**	**12.00**	**5.00**	**6.00**	**15.00**	**18.00**	**7.00**	**8.00**
60.01–120.00	**8.00**	**8.00**	**4.00**	**4.00**	**12.00**	**12.00**	**5.50**	**5.50**