

## ASSIGNMENT II

**Execute the following questions in Jupyter Notebook and upload the .ipynb file. There are 10 questions in this assignment and each carries 2 marks.**

1. Write a python program to create a new csv file that holds the data about 5 students and their marks: Roll no of student, name and marks scored in Mathematics, Science and English.
2. Write a python to program to add to each record in the above csv file, the total marks and the percentage secured by each student. Then print its contents sorted in descending order of percentage.
3. Write a program to create a file that holds the mailing addresses of all the students in your class. Using this file, determine the different number of students using each of the different domains.
4. Create a file that contains the names of all the students in your class and the month in which their birthday falls. Write a program to find the names of all students whose birthday falls in the month of October.
5. Write a program to create a list of lists. The element list should be factors of the indices of the list.

Sample input: 10

Sample output: [[0], [1], [1, 2], [1, 3], [1, 2, 4], [1, 5], [1, 2, 3, 6], [1, 7], [1, 2, 4, 8], [1, 3, 9], [1, 2, 5, 10]]

6. Develop a Phone-Book using dictionaries and search for a particular name then display it.
7. Write a Python program to combine two dictionary adding values for common keys.

Sample input: d1 = {'a': 100, 'b': 200, 'c':300} and d2 = {'a': 300, 'b': 200,'d':400}

Sample output: Counter({'a': 400, 'b': 400, 'd': 400, 'c': 300})

8. Write a program to display all the unique values in the given list of dictionaries:  
Sample Data: [{"V": "S001"}, {"V": "S002"}, {"VI": "S001"}, {"VI": "S005"}, {"VII": "S005"}, {"V": "S009"}, {"VIII": "S007"}]

9. Create a program that counts the total number of words, total number of punctuation marks and displays the most frequently occurring word from the following paragraph:

*Entrepreneur and e-commerce pioneer Jeff Bezos was born on January 12, 1964, in Albuquerque, New Mexico. Bezos had an early love of computers and studied computer science and electrical engineering at Princeton University. After graduation he worked on Wall Street, and in 1990 he became the youngest senior vice president at the investment firm D.E. Shaw. Four years later, he quit his lucrative job to open Amazon.com, a virtual bookstore that became one of the internet's biggest success stories. In 2013, Bezos purchased The Washington Post in a \$250 million deal. His successful business ventures have made him one of the richest people in the world!*

10. From the above paragraph, extract all the years mentioned.