

# DA-3

- Write a python program to get a sentence from the user. Separate words that starts with vowels from the words that starts with consonants. Store the separated words in two sets.
- Sci\_pass = {s1, s2, s3, s5, s7} Sci\_fail = {s4, s6, s8, s9, s10}. Math\_80+ = {s3, s5, s9, s10} Maths\_below\_60 = {s1, s2, s7, s8}. English\_70+ = {s3, s4, s9} English\_below\_40 = {s1, s2}. Write a python program containing functions to find the students who failed in science and got 80+ in maths, who passed in science or got below 40 in English, who got marks from 60 to 80 in maths and above 40 in English.
- Write a python program to search the word that occurred more than once in a sentence using Regular Expressions. Find the number of occurrences and their positions.
- Write a python program containing function to get common prime factors of three numbers and store them in a list.
- Write a python program containing functions to print Taylor series of sinx, cosx and tanx with n terms.