

## **DATA SCIENCE LAB IAE-1**

### **20MCA241-Data Science Lab C**

**1. Below is a table of student's scores out of 100 on their Maths and English tests. Plot a scatter graph from this data.**

- (i) Provide appropriate label to co-ordinates and Title**
- (ii) Display description of graph in upper right corner**
- (iii) Use different shapes and colors for representing marks of each subject.**

Maths mark	38	62	18	75	38	59	66	92	52	75	48
English mark	74	44	85	19	88	69	50	33	29	32	56

### **PROGRAM**

```
import matplotlib.pyplot as plt
import numpy as np

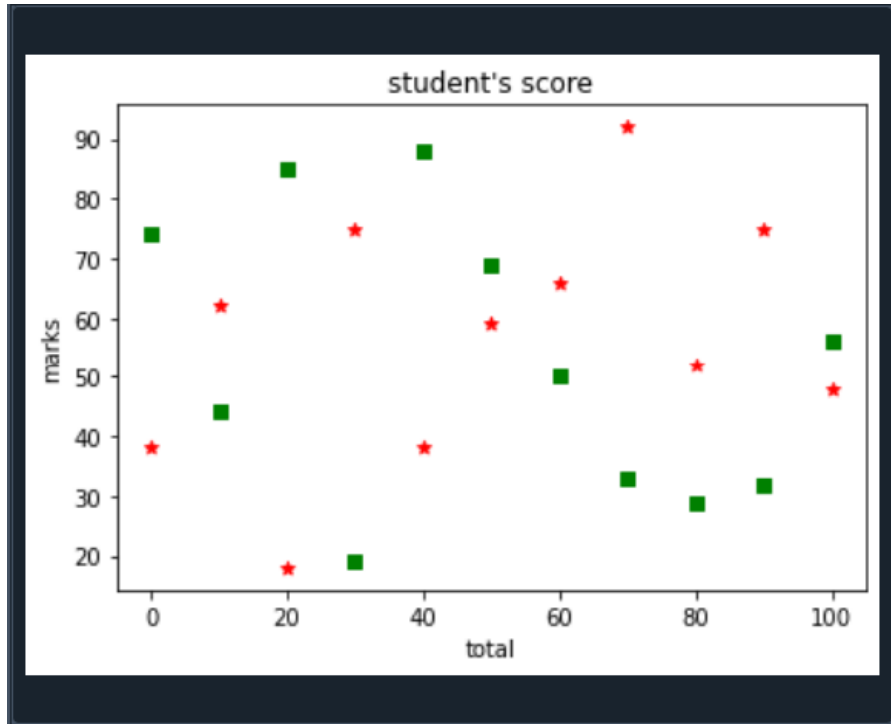
plt.xlabel("total")
plt.ylabel("marks")
plt.title("student's score")

total = np.array([0,10,20,30,40,50,60,70,80,90,100])
maths = np.array([38,62,18,75,38,59,66,92,52,75,48])
plt.scatter(total,maths, color = "red", marker = "*")

total = np.array([0,10,20,30,40,50,60,70,80,90,100])
english = np.array([74,44,85,19,88,69,50,33,29,32,56])
plt.scatter(total,english, color = "green", marker = "s")

plt.show()
```

### OUTPUT



2. Write a Python program that accepts a 10 digit mobile number, and find the digits which are absent in a given mobile number

### PROGRAM

```
def absent_digits(n):  
    all_nums = set([0, 1, 2, 3, 4, 5, 6, 7, 8, 9])  
    n = set([int(i) for i in n])  
    n = n.symmetric_difference(all_nums)  
    n = sorted(n)  
    return n  
  
print("absent digits are: ", absent_digits([6, 7, 4, 5, 4, 9, 2, 3, 1, 6]))
```

### OUTPUT

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```
In [43]: runcell(0, '/home/sjcet/untitled0.py')  
absent digits are: [0, 8]
```