

Quo.1

}

Question 1 Use IF ELSE and ELIF to write a program in python for your Report Cards.

In [17]:

```
class Student:
    def __init__(self):
        self.__roll=0
        self.__name=""
        self.__marks=[]
        self.__total=0
        self.__per=0
        self.__grade=""
        self.__result=""
    def setStudent(self):
        self.__roll=int(input("Enter Roll: "))
        self.__name=input("Enter Name: ")
        print("Enter marks of 5 subjects: ")
        for i in range(5):
            self.__marks.append(int(input("Subject "+str(i+1)+" : ")))
    def total(self):
        for x in self.__marks:
            self.__total+=x
    def percentage(self):
        self.__per=self.__total/5
    def calculateGrade(self):
        if self.__per>=85:
            self.__grade="S"
        elif self.__per>=75:
            self.__grade="A"
        elif self.__per>=65:
            self.__grade="B"
        elif self.__per>=55:
            self.__grade="C"
        elif self.__per>=50:
            self.__grade="D"
        else:
            self.__grade="F"
    def calculateResult(self):
        count=0
        for x in self.__marks:
            if x>=50:
                count+=1
```

```

        if count==5:
            self.__result="PASS"
        elif count>=3:
            self.__result="COMP."
        else:
            self.__result="FAIL"
    def showStudent(self):
        self.total()
        self.percentage()
        self.calculateGrade()
        self.calculateResult()

print(self.__roll,"\t\t",self.__name,"\t\t",self.__total,"\t\t",self.__per,"\t\t",
self.__grade,"\t\t",self.__result)
    def main():
        s=Student()
        s.setStudent()
        s.showStudent()
if __name__=="__main__":
    main()
Enter Roll: 025
Enter Name: Ravi
Enter marks of 5 subjects:
Subject 1: 98
Subject 2: 99
Subject 3: 99
Subject 4: 100
Subject 5: 100
25          Ravi          496          99.2          S          PASS

```

question 2

Question 2 Use For Loop to Print Prime Numbers in between 1 to 1000

In [18]:

Number = 1

```
while(Number <= 100):
```

```
    count = 0
```

```
    i = 2
```

```
    while(i <= Number//2):
```

```
        if(Number % i == 0):
```

```
            count = count + 1
```

```
            break
```

```
        i = i + 1
```

```
    if (count == 0 and Number != 1):
```

```

        print(" %d" %Number, end = ' ')
    Number = Number + 1
2   3   5   7   11   13   17   19   23   29   31   37   41   43   47   53   59
61   67   71   73   79   83   89   97

```

question 3

Question 3 Write a program for printing the tables from 1,10 using Nested For Loop

In [19]:

```

for i in range(1,11):
    print("\n\nMULTIPLICATION TABLE FOR %d\n" %(i))
    for j in range(1,11):
        print("%-5d X %-5d = %-5d" % (i, j, i*j))

```

MULTIPLICATION TABLE FOR 1

```

1      X      1 =      1
1      X      2 =      2
1      X      3 =      3
1      X      4 =      4
1      X      5 =      5
1      X      6 =      6
1      X      7 =      7
1      X      8 =      8
1      X      9 =      9
1      X     10 =     10

```

MULTIPLICATION TABLE FOR 2

```

2      X      1 =      2
2      X      2 =      4
2      X      3 =      6
2      X      4 =      8
2      X      5 =     10
2      X      6 =     12
2      X      7 =     14
2      X      8 =     16
2      X      9 =     18
2      X     10 =     20

```

MULTIPLICATION TABLE FOR 3

```

3      X      1 =      3
3      X      2 =      6
3      X      3 =      9
3      X      4 =     12
3      X      5 =     15
3      X      6 =     18
3      X      7 =     21
3      X      8 =     24
3      X      9 =     27

```

$$3 \quad \times \quad 10 = 30$$

MULTIPLICATION TABLE FOR 4

$$4 \quad \times \quad 1 = 4$$

$$4 \quad \times \quad 2 = 8$$

$$4 \quad \times \quad 3 = 12$$

$$4 \quad \times \quad 4 = 16$$

$$4 \quad \times \quad 5 = 20$$

$$4 \quad \times \quad 6 = 24$$

$$4 \quad \times \quad 7 = 28$$

$$4 \quad \times \quad 8 = 32$$

$$4 \quad \times \quad 9 = 36$$

$$4 \quad \times \quad 10 = 40$$

MULTIPLICATION TABLE FOR 5

$$5 \quad \times \quad 1 = 5$$

$$5 \quad \times \quad 2 = 10$$

$$5 \quad \times \quad 3 = 15$$

$$5 \quad \times \quad 4 = 20$$

$$5 \quad \times \quad 5 = 25$$

$$5 \quad \times \quad 6 = 30$$

$$5 \quad \times \quad 7 = 35$$

$$5 \quad \times \quad 8 = 40$$

$$5 \quad \times \quad 9 = 45$$

$$5 \quad \times \quad 10 = 50$$

MULTIPLICATION TABLE FOR 6

$$6 \quad \times \quad 1 = 6$$

$$6 \quad \times \quad 2 = 12$$

$$6 \quad \times \quad 3 = 18$$

$$6 \quad \times \quad 4 = 24$$

$$6 \quad \times \quad 5 = 30$$

$$6 \quad \times \quad 6 = 36$$

$$6 \quad \times \quad 7 = 42$$

$$6 \quad \times \quad 8 = 48$$

$$6 \quad \times \quad 9 = 54$$

$$6 \quad \times \quad 10 = 60$$

MULTIPLICATION TABLE FOR 7

$$7 \quad \times \quad 1 = 7$$

$$7 \quad \times \quad 2 = 14$$

$$7 \quad \times \quad 3 = 21$$

$$7 \quad \times \quad 4 = 28$$

$$7 \quad \times \quad 5 = 35$$

$$7 \quad \times \quad 6 = 42$$

$$7 \quad \times \quad 7 = 49$$

$$7 \quad \times \quad 8 = 56$$

$$7 \times 9 = 63$$

$$7 \times 10 = 70$$

MULTIPLICATION TABLE FOR 8

$$8 \times 1 = 8$$

$$8 \times 2 = 16$$

$$8 \times 3 = 24$$

$$8 \times 4 = 32$$

$$8 \times 5 = 40$$

$$8 \times 6 = 48$$

$$8 \times 7 = 56$$

$$8 \times 8 = 64$$

$$8 \times 9 = 72$$

$$8 \times 10 = 80$$

MULTIPLICATION TABLE FOR 9

$$9 \times 1 = 9$$

$$9 \times 2 = 18$$

$$9 \times 3 = 27$$

$$9 \times 4 = 36$$

$$9 \times 5 = 45$$

$$9 \times 6 = 54$$

$$9 \times 7 = 63$$

$$9 \times 8 = 72$$

$$9 \times 9 = 81$$

$$9 \times 10 = 90$$

MULTIPLICATION TABLE FOR 10

$$10 \times 1 = 10$$

$$10 \times 2 = 20$$

$$10 \times 3 = 30$$

$$10 \times 4 = 40$$

$$10 \times 5 = 50$$

$$10 \times 6 = 60$$

$$10 \times 7 = 70$$

$$10 \times 8 = 80$$

$$10 \times 9 = 90$$

$$10 \times 10 = 100$$

question 4

Question 4 Write a program to Print X Prime Numbers using While Loop starting from 0, and take the INput of X from the user

In [20]:

```
second = int(input("Enter the Second Number:"))
```

```
for i in range(1, second):
```

```
    for j in range(2, i//2):
```

```
        if i % j == 0:
```

```
        break
    else:
        print("Prime Number", i)
Enter the Second Number:223
Prime Number 1
Prime Number 2
Prime Number 3
Prime Number 4
Prime Number 5
Prime Number 7
Prime Number 11
Prime Number 13
Prime Number 17
Prime Number 19
Prime Number 23
Prime Number 29
Prime Number 31
Prime Number 37
Prime Number 41
Prime Number 43
Prime Number 47
Prime Number 53
Prime Number 59
Prime Number 61
Prime Number 67
Prime Number 71
Prime Number 73
Prime Number 79
Prime Number 83
Prime Number 89
Prime Number 97
Prime Number 101
Prime Number 103
Prime Number 107
Prime Number 109
Prime Number 113
Prime Number 127
Prime Number 131
Prime Number 137
Prime Number 139
Prime Number 149
Prime Number 151
Prime Number 157
```

Prime Number 163  
Prime Number 167  
Prime Number 173  
Prime Number 179  
Prime Number 181  
Prime Number 191  
Prime Number 193  
Prime Number 197  
Prime Number 199  
Prime Number 211