1.Write a python program to implement Simple Calculator program?

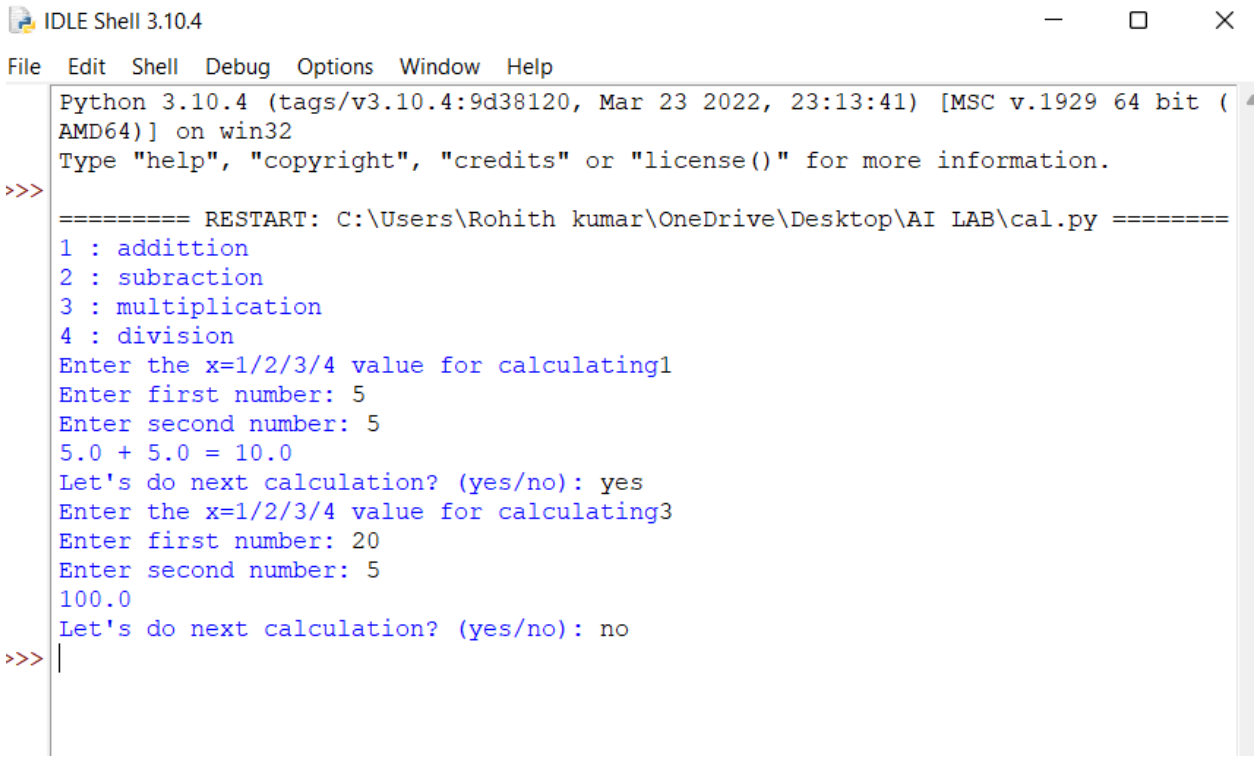
Program:

```
#program to implement Simple Calculator

print("1 : addittion")
print("2 : subraction")
print("3 : multiplication")
print("4 : division")
while True:
    x=int(input("Enter the x=1/2/3/4 value for calculating"))
    if x==1 or x==2 or x==3 or x==4 :
        num1 = float(input("Enter first number: "))
        num2 = float(input("Enter second number: "))
        if x==1:
            a=num1+num2
            print(num1, "+", num2, "=", a)
        elif x==2:
            s=num1-num2
            print(s)
        elif x==3:
            m=num1*num2
            print(m)
        elif x==4:
            d=num1/num2
            print(d)

        y = input("Let's do next calculation? (yes/no): ")
        if y == "no":
          break
    else:
        print("invalid input")
```

OUTPUT:



2.Write a python program to Add Two Matrices.

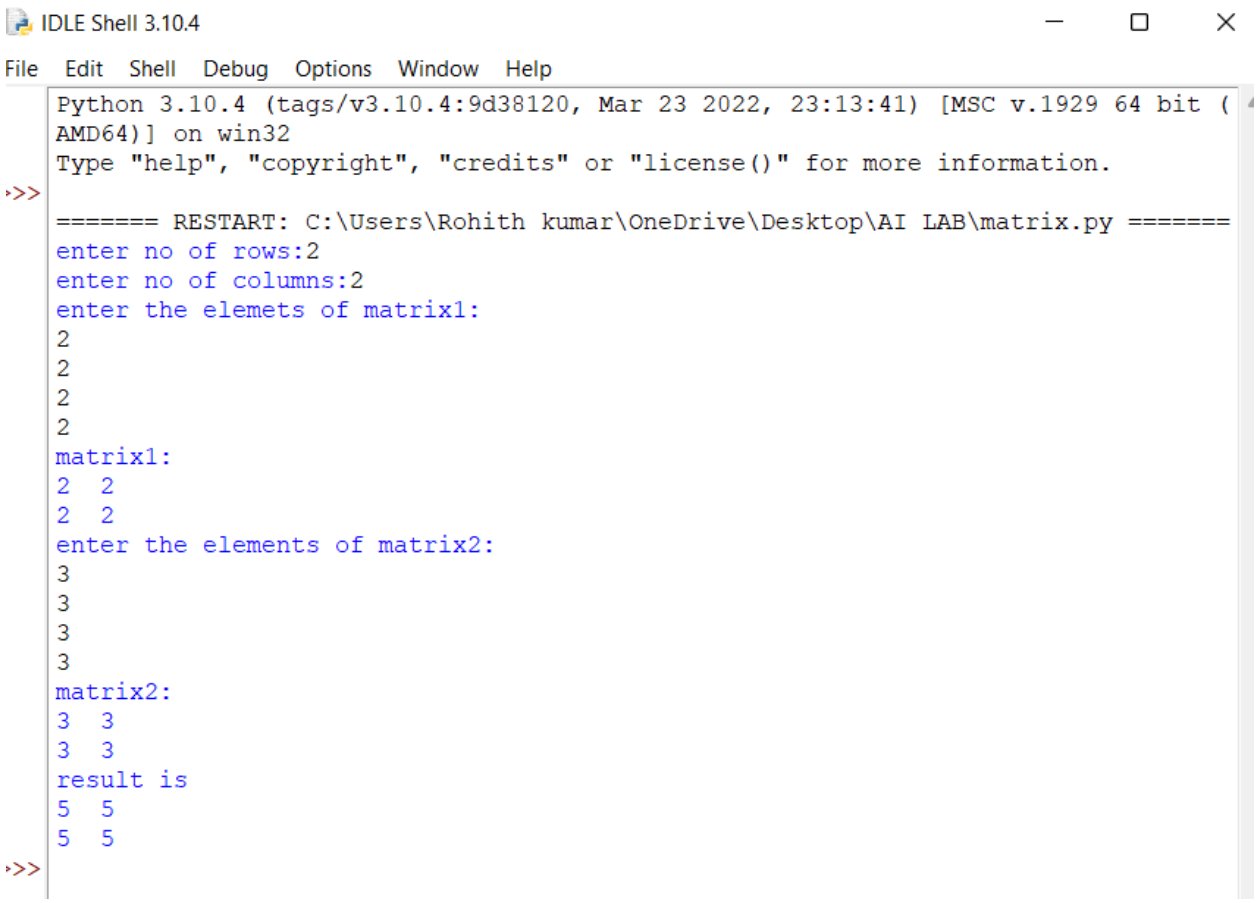
Program:

```
row= int(input("enter no of rows"))
col=int(input("enter no of columns:"))
print("enter the elemets of matrix1:")
matrix1 = [[int(input()) for i in range(col)] for j in range(row)]
print("matrix1:")
for i in range(row):
    for j in range(col):
        print(format(matrix1[i][j],"<3"),end="")
    print()
print("enter the elements of matrix2:")
matrix2 = [[int(input()) for i in range(col)] for j in range(row)]
print("matrix2:")
for i in range(row):
    for j in range(col):
        print(format(matrix2[i][j],"<3"),end="")
    print()
result=[[0 for i in range(col)] for j in range(row)]

for i in range(row):
    for j in range(col):
        result[i][j] = matrix1[i][j] + matrix2[i][j]
```

```
print("result is")
for i in range(row):
    for j in range(col):
        print(format(result[i][j],"<3"),end="")
    print()
```

OUTPUT:



3.Write a python program to Transpose a Matrix.

Program:

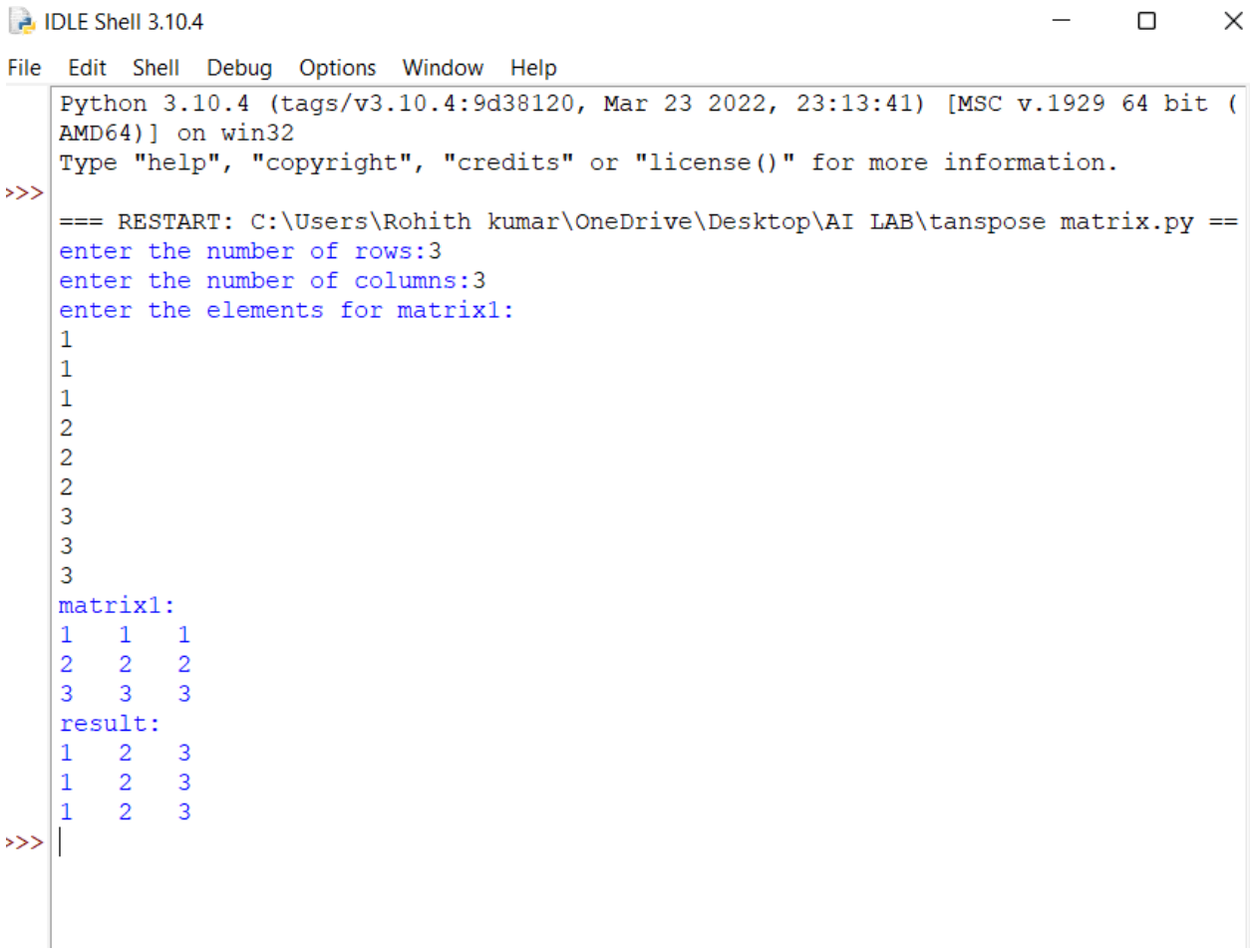
```
p=int(input("enter the number of rows:"))
q=int(input("enter the number of columns:"))

print("enter the elements for matrix1:")
matrix1 = [[int(input()) for i in range(q)] for j in range(p)]
print("matrix1:")
for i in range(p):
    for j in range(q):
        print(format(matrix1[i][j],"<4"),end="")
```

```
    print()

result =[[0 for i in range(p)] for j in range(q)]
for i in range(q):
    for  j in range(p):
        result[i][j] = matrix1[j][i]
print("result:")
for i in range(q):
    for j in range(p):
        print(format(result[i][j],"<4"),end="")
    print()
```

OUTPUT:



4.Write a python program to sort the sentence in alphabetical order?

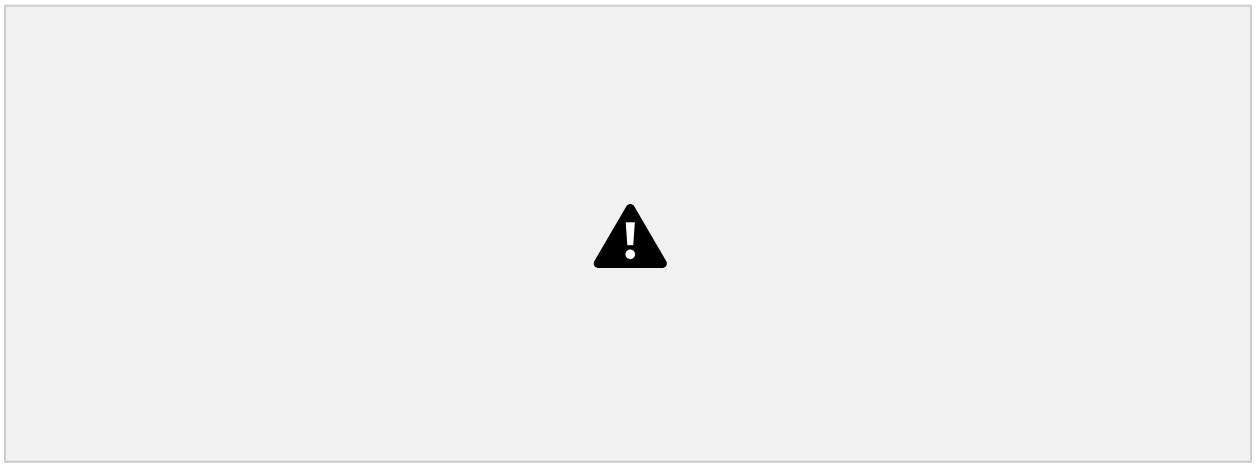
Program:

```
print("Enter the String: ", end="")
str = input()
```

```
str = sorted(str)
str = ''.join(str)

print("\nSorted String is:", str)
```

OUTPUT:



5.Write a python program to implement List operations (Nested List, Length, Concatenation, Membership, Iteration, Indexing and Slicing)?

Program:

```
Nested_List = [10, 20, 30,['a', 'b', 'c'], 50]
Sub_List = Nested_List[3]
data = Nested_List[3][1]
print("List inside the nested list: ", Sub_List)
print("Second element of the sublist: ", data)
```

6.Write a python program to implement List methods (Add, Append, Extend & Delete).

Program:

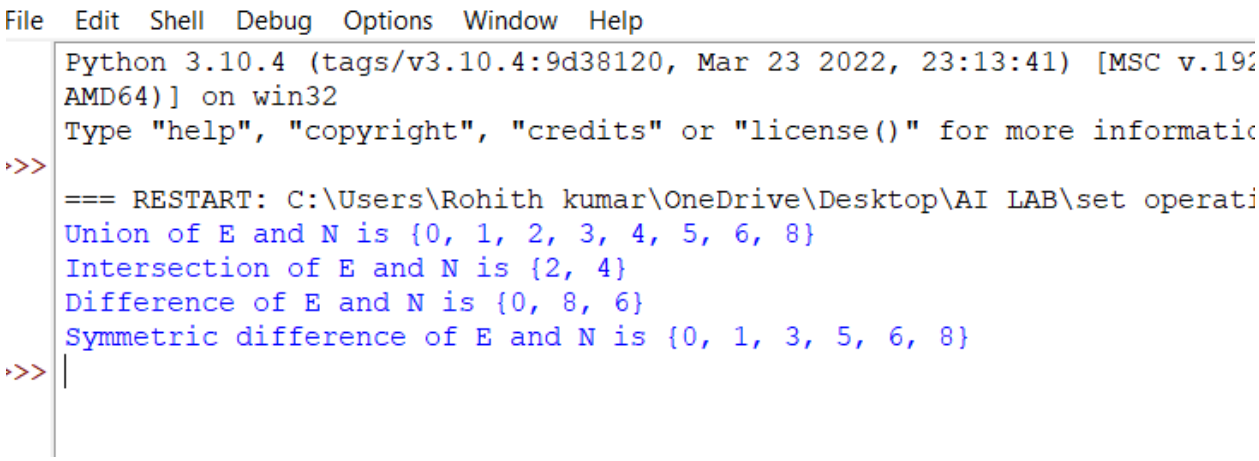
7.Write a python program to Illustrate Different Set Operations?

Program:

```
E = {0, 2, 4, 6, 8};
N = {1, 2, 3, 4, 5};
print("Union of E and N is",E | N)
print("Intersection of E and N is",E & N)
print("Difference of E and N is",E - N)
```

```
print("Symmetric difference of E and N is",E ^ N)
```

OUTPUT:



8.Write a python program to generate Calendar for the given month and year?

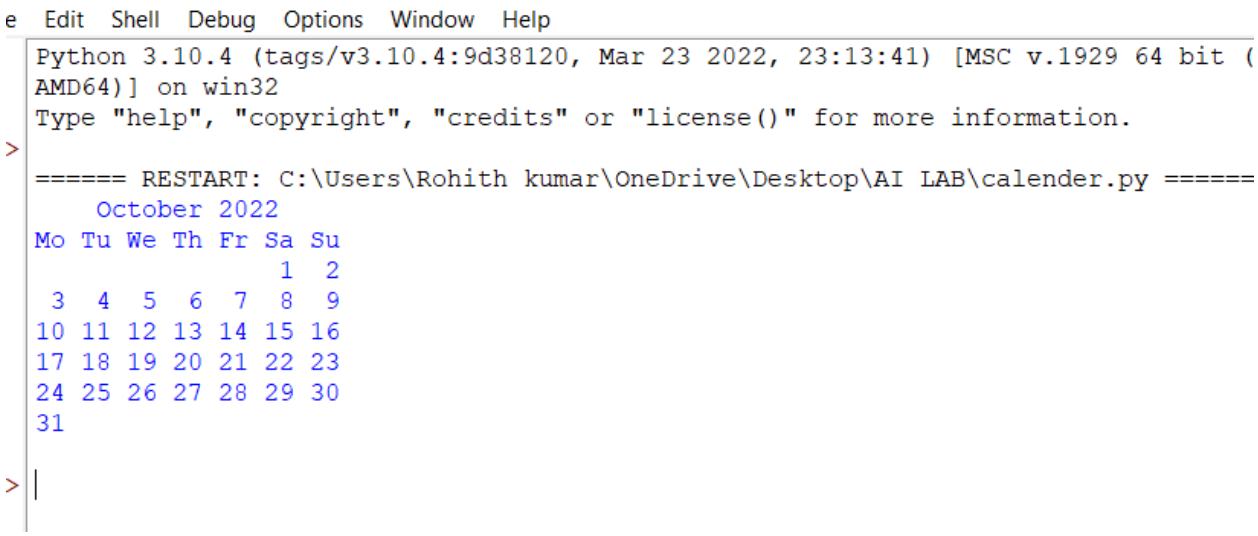
Program:

```
import calendar

yy = 2022
mm = 10

print(calendar.month(yy, mm))
```

OUTPUT:



9. Write a python program to remove punctuations from the given string?

Program:

```
punctuations = '''!()-[]{};:'"\,<>./?@#$%^&*_~'''
```

```
my_str = "Hello!!!, he said ---and went."

no_punct = ""
for char in my_str:
   if char not in punctuations:
       no_punct = no_punct + char

print(no_punct)
```

OUTPUT: