Part A

5. Write a function nearly equal to test whether two strings are nearly equal. two strings a and b are nearly equal if one character change in b results in string a

Code:

```
def nearly_equal(a,b):
    if len(a)!=len(b):
        return False
    diff_count=0
    for i in range(len(a)):
        if a[i]!=b[i]:
            diff_count+=1
            if diff_count>1:
                return False
    return diff_count==1
string1=input("Enter String1")
string2=input("Enter string2")
print(nearly_equal(string1,string2)) #True
```

Output:

```
Enter String1: hello
Enter String2: hi
False
>
==== RESTART: C:\Users\shrin\OneDriv
Enter String1: Python
Enter String2: Sython
True
>
==== RESTART: C:\Users\shrin\OneDriv
Enter String1: Sunday
Enter String2: Funday
True
```

8. Write a Pandas program to join the two given data frames along rows. Sample Data frame may contain details of student like rollno , name , Total Marks.

Code:

```
import pandas as pd
data1={
   'RollNo':[101,102,103],
   'Name':['JOhn','Emma','Michel'],
   'TotalMarks':[85,92,78]
   }
df1=pd.DataFrame(data1,index=[1,2,3])
data2={
    'RollNo':[104,105,106],
   'Name':['Sophia','Oliver','Ava'],
   'TotalMarks':[98,88,95]
    }
df2=pd.DataFrame(data2,index=[4,5,6])


df_combined=pd.concat([df1,df2],axis=0)
print(df_combined)
```

Output:

```
   RollNo    Name  TotalMarks
1     101    JOhn          85
2     102    Emma          92
3     103  Michel          78
4     104  Sophia          98
5     105  Oliver          88
6     106     Ava          95
```