NAME: ASIF ERFAN KHAN

ROLL NUMBER: 546

COURSE: MSc CS

SUBJECT: BIOINFORMATICS

TOPIC: IDENTITY OF TWO PROTEIN SEQUENCE

Practical No: 2

Aim: Write a Python/Java code to find the identity value of a given sequences. Take the sequence from user.

Code:

```
se1=input("Enter the first sequence::")
se2=input("Enter the second sequence::")

seq1=list(se1)
seq2=list(se2)
def find_identity(a,b):
    gap(a,b)
    print(a)
    print(b)
    score=0
    length=len(a)
    total_elements=len(a)*len(b)
    for i in range(0,length):
        for j in range(0,length):
            if(a[i]==b[j]):
                score=score+1
    identity=(score/total_elements)*100
    print("Matching Score::",score)
    print("Identity of the sequences::",identity)
def gap(a,b):
    if(len(a)==len(b)):
        print()
    else:
```

```
    k=int(input("enter the position to insert gap ::"))
    if (len(a)<len(b)):
        a.insert(k,'-')
    else:
        b.insert(k,'-')
  return(a,b)
find_identity(seq1,seq2)
```

OUTPUT: