LAB 5

1d. Addition of two matrices.

Code:

```
m = int(input("Enter m: "))
n = int(input("Enter n: "))

mat1 = []
mat2 = []
for i in range(m):
    a = list(map(int,input("\nEnter the numbers in row " + str(i+1) + ": ").st
rip().split()))[:n]
    mat1.append(a)
print(mat1)
for i in range(m):
    a = list(map(int,input("\nEnter the numbers in row " + str(i+1) + ": ").st
rip().split()))[:n]
    mat2.append(a)
print(mat2)

result = [[mat1[i][j] + mat2[i][j]  for j in range(m)] for i in range(n)]
print("\nResult: ")
print(result)
```

Output:

```
(base) C:\Users\arjun\Desktop\IT\ITT-Lab>C:/Users/arjun/Anaconda3/python.exe c:/Users/arjun/Desktop/IT/ITT-Lab/lab5/1d.py
Enter m: 3
Enter n: 3

Enter the numbers in row 1: 1 2 3

Enter the numbers in row 2: 4 5 6

Enter the numbers in row 3: 7 8 9
[[1, 2, 3], [4, 5, 6], [7, 8, 9]]

Enter the numbers in row 1: 1 2 3

Enter the numbers in row 2: 4 5 6

Enter the numbers in row 3: 7 8 9
[[1, 2, 3], [4, 5, 6], [7, 8, 9]]

Result:
[[2, 4, 6], [8, 10, 12], [14, 16, 18]]
```

1i. Write a program to find whether a list is palindrome or not.

Code:

```
n = int(input("Enter number of elements: "))
a = list(map(int,input("\nEnter the elements: ").strip().split()))[:n]

print(a)
if a == a[::-1]:
    print("Its is a Palindrome")
else:
    print("It is not a palindrome")
```

Output:

```
(base) C:\Users\arjun\Desktop\IT\ITT-Lab>C:/Users/arjun/Anaconda3/python.exe c:/Users/arjun/Desktop/IT/ITT-Lab/lab5/1i.py
Enter number of elements: 7

Enter the elements: 1 2 3 4 3 2 1
[1, 2, 3, 4, 3, 2, 1]
Its is a Palindrome
```

LAB 6

1a. To check whether the string is palindrome or not.

Code :

```
a = input("Enter a string: ")

if(a == a[::-1]):
    print(a + " is a palindrome")
else:
    print(a + " is not a palindrome")
```

Output:

```
(base) C:\Users\arjun\Desktop\IT\ITT-Lab>C:/Users/arjun/Anaconda3/python.exe c:/Users/arjun/Desktop/IT/ITT-Lab/lab6/1a.py
Enter a string: racecar
racecar is a palindrome
```

1c. Sort words in alphabetic order.

Code:

```
a = input("Enter words: ")

words = a.split(" ")
print(words)
result = sorted(words)
print(result)
```

Output:

```
(base) C:\Users\arjun\Desktop\IT\ITT-Lab>C:/Users/arjun/Anaconda3/python.exe c:/Users/arjun/Desktop/IT/ITT-Lab/lab6/1c.py
Enter words: console log hello world
['console', 'log', 'hello', 'world']
['console', 'hello', 'log', 'world']
```

LAB 6

3.Write a Python program to search a specific student details from the database based on regno.

Code:

```
import sqlite3
conn = sqlite3.connect('test.db')
print ("Opened database successfully")
conn.execute('''CREATE TABLE STUDENT
 (STUDENtID INT PRIMARY KEY NOT NULL,
 REGNO INT NOT NULL,
 NAME TEXT NOT NULL,
 SEMESTER INT NOT NULL,
 BRANCH CHAR(50) NOT NULL,
 CGPA INT NOT NULL,
 EMAIL TEXT);''')
print ("Table created successfully")

conn.execute("INSERT INTO STUDENT (STUDENTID, REGNO, NAME, SEMESTER,BRANCH, CG
PA, EMAIL) VALUES (1, 180911230, 'ARJUN', 5, 'IT', 10, 'a@gmail.com')")
conn.execute("INSERT INTO STUDENT (STUDENTID, REGNO, NAME, SEMESTER,BRANCH, CG
PA, EMAIL) VALUES (2, 180911220, 'RAM', 5, 'CSE', 5, 'r@gmail.com' )")
conn.execute("INSERT INTO STUDENT (STUDENTID, REGNO, NAME, SEMESTER,BRANCH, CG
PA, EMAIL) VALUES (3, 180911110, 'SHYAM', 5, 'CCE', 8, 's@gmail.com')")
conn.execute("INSERT INTO STUDENT (STUDENTID, REGNO, NAME, SEMESTER,BRANCH, CG
PA, EMAIL) VALUES (4, 180911010, 'SAM', 5, 'IT', 9,'s1@gmail.com' )")
conn.commit()
```

```
print("\nSearching for student with registration number = 180911230")
cursor = conn.execute("SELECT studentid, name, regno, branch from STUDENT wher
e regno = 180911230")
for i in cursor:
    print("StudentID: " + str(i[0]))
    print("Name: " + i[1])
    print("RegNo: " + str(i[2]))
    print("Branch: " + i[3])
conn.close()
```

Output:

```
(base) C:\Users\arjun\Desktop\IT\ITT-Lab>C:/Users/arjun/Anaconda3/python.exe c:/Users/arjun/Desktop/IT/ITT-Lab/lab7/3.py
Opened database successfully
Table created successfully

Searching for student with registration number = 180911230
StudentID: 1
Name: ARJUN
RegNo: 180911230
Branch: IT
```