

A CSV file (Comma Separated Values file) is a type of plain text file that uses specific structuring to arrange tabular data. Because it's a plain text file, it can contain only actual text data—in other words, printable ASCII or Unicode characters.

P.1: Simple program to write data to csv file.

```
#csv=comma separated file.
import csv
with open('students.csv', 'w', newline='') as file:
    writer = csv.writer(file)
    writer.writerow(["sid", "Name", "city","age"])
    writer.writerow([1, 'Kishan', 'Diphu',15])
    writer.writerow([2, 'Rajesh', 'Dimapur',16])
    writer.writerow([3, 'Radha', 'Guwahati',15])
    writer.writerow([4, 'Mohan', 'Narangi',14])
```

P.2: Program to write data to csv file (input data from user) (for text file, change file extension to "txt" instead of "csv")

```
import csv
n=int(input("Enter no. of students : "))
with open('students.csv', 'w', newline='') as file:
    writer = csv.writer(file)
    writer.writerow(["sid", "Name", "city","age"])

    for i in range(1,n+1):
        sid=input("SID : ")
        name=input("Name : ")
        city=input("City : ")
        age=input("Age : ")
        writer.writerow([sid,name,city,age])
        print("Saved.")

print("Thank you")
```

P.3: Program to read data from csv file. (for text file, change file extension to "txt" instead of "csv")

```
import csv

with open('students.csv') as csv_file:
    csv_reader = csv.reader(csv_file, delimiter=',')
    n = 0
    for row in csv_reader:
        print("|%5s | %10s | %10s |"%(row[0],row[1],row[3]))
        n += 1

    print("Total lines : ", n)
```

P.4: Program to read csv file into dataframe.

```
import pandas as pd
df = pd.read_csv('students.csv')
print(df)
```

P.5: Simple program to add records to mysql

```
import mysql.connector as con

db = con.connect(host="localhost",user="root",database="test")
cur=db.cursor()

sql = "INSERT INTO stud (sid, nm, age, city) VALUES (%s, %s, %s, %s)"
val = ("2", "Kishan","15","Diphu")
cur.execute(sql, val)
db.commit()
print(cur.rowcount, " - record inserted.")
```

P.6: Program to insert(add) records to mysql database from user input values.

```
import mysql.connector as con

db = con.connect(host="localhost",user="root",database="test")
cur=db.cursor()

sql = "INSERT INTO stud (sid, nm, age, city) VALUES (%s, %s, %s, %s)"
n=int(input("Enter no. of students to add : "))

for i in range(1,n+1):
    sid=input("SID : ")
    name=input("Name : ")
    age=input("age : ")
    city=input("City : ")
    val = (sid, name, age, city)
    cur.execute(sql, val)
    db.commit()
    print(cur.rowcount, " - record inserted.")

print("Thank you")
```

P.7: Program to insert(add) records to mysql database from user input values.

With error handling (try...except)

```
import mysql.connector as con

try
{
db = con.connect(host="localhost",user="root",database="test")
cur=db.cursor()

sql = "INSERT INTO stud (sid, nm, age, city) VALUES (%s, %s, %s, %s)"
n=int(input("Enter no. of students to add : "))

for i in range(1,n+1):
    sid=input("SID : ")
    name=input("Name : ")
    age=input("age : ")
    city=input("City : ")
    val = (sid, name, age, city)
    cur.execute(sql, val)
    db.commit()
    print(cur.rowcount, " - record inserted.")

print("Thank you")
}
except Error as e:
    print("Error : ",e)
```