# S.Y.B.C.A. ( Sem-3) :

# Practical work :

**Exercise – 04 to 06**

## Exercise – 4: Use Jupyter notebook to solve following tasks.

**Perform following task step by step using sqlite3 module of python:**

1) Check your current PYTHONPATH using following command:
   >> ! echo $PYTHONPATH
2) Append the PYTHONPATH and add the path of your COLAB NOTEBOOK as follows.
   >> import os
   >> os.environ['PYTHONPATH'] += ":/content/gdrive/My Drive/C
3) Write Python code to Create database 'My_Db'.
4) Write python code to Create table Student(sid number primary key, sname, city, age)
5) Write python code insert six records of students.
6) Using cursor, write Python code to display all students from the table using fetchall() method.
7) Display first three records from the Student table using fetchone() method.
8) Create user defined method Updte_query(con, query). It will execute the query passed to it.
9) Use above user defined function and change the age of student for sid number 5.
10) Create user defined method del_query(con,query). It contains two passing parameters: Path and the Query. It contains two passing parameters: Path and the Query. It will delete specific records based on the query passed to it.
11) Using above user defined method, delete record from the table where sid=2.
12) Create user_defined function disp_query(con,query). It contains two passing parameters: Path and the Query. It displays all records of the table Student based on passed query.

## Exercise – 5: Use Jupyter notebook to solve following tasks.

**[A] Write a Python code to create data file (CSV) file using CSV module:**

1.) Use open() method of the CSV module to create and open Student.csv file in "w" mode. The Student.csv fill will contain (sid, sname, city, age) attributes.

2) Write a python code to store five records using writerow() method in CSV file. Make sure to add first row containing the title of the attributes.

3) Write a python code to open the csv file in 'r' mode. (Read mode). Using reader() method display all records available from the data file using for loop.

**[B] Problem: Create Text file and store records in the text file using coma (,) as separator.**

**Tasks:**

1.) Create 'Student.txt' file using W+ mode.
2.) Insert five records consists of two attributes ( student_id and Student_name) using write() method. Close the file at end.
3.) Open the file in Read ('r') mode and read the file using read()method. Display the content of the file using read() method. Close the file.
4.) Open the file in Read ('r') mode and read the file using readline()method. Display the content of the file using readline() method. Close the file.

**Exercise – 6: Use of Dataframe and creating Dataframe from List, Dictionary and CSV file. ( Use Pandas library)**

**Tasks:**

1) Create a list consists of ten names. Use the list to store the list elements in DataFrame. Display the created dataframe.
2) Create DataFrame from Dictionary which is consists of lists. Create following dictionary consists of three keys and each of them contain corresponding list of values.

```
d = {'Student':['Rutvik', 'Pankti', 'Evaan', 'Dhyan'],
     'City':['Pune', 'Delhi', 'Surat', 'Houston'],
     'Age':[22, 16, 5, 13]}
```

Store above dictionary in dataframe and display the created dataframe.