Vidyavardhini's College of Engineering & Technology

Department of Computer Engineering

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| Experiment No. 13 |
| Program to demonstrate CRUD (create, read, update and delete) operations on database (SQLite/ MySQL) using python |
| Date of Performance:12/04/2024 |
| Date of Submission:12/04/2024 |

Experiment No. 13

Title: Program to demonstrate CRUD (create, read, update and delete) operations on database (SQLite/ MySQL) using python

Aim: To study and implement CRUD (create, read, update and delete) operations on database (SQLite/ MySQL) using python

Objective: To introduce database connectivity with python

Theory:

In general CRUD means performing Create, Retrieve, Update and Delete operations on a table in a database. Let's discuss what actually CRUD means,
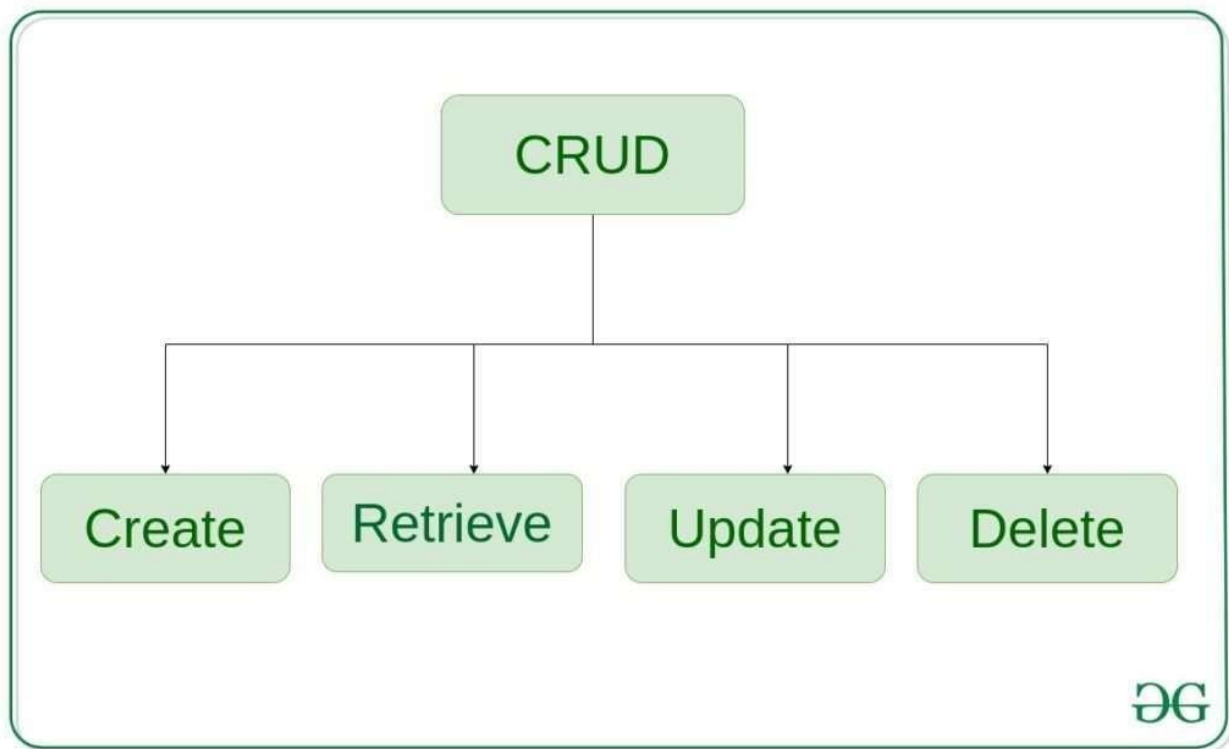
Create – create or add new entries in a table in the database.
Retrieve – read, retrieve, search, or view existing entries as a list(List View) or retrieve a particular entry in detail (Detail View)
Update – update or edit existing entries in a table in the database
Delete – delete, deactivate, or remove existing entries in a table in the database

Code:

```python
from tkinter import *
import mysql.connector
def add():
    ids1=ids.get()
    name1=name.get()
    marks1=marks.get()
    sql=mysql.connector.connect(host="localhost",port=3307,user='root',password='',database='tkint')
    cur=sql.cursor()
    d="insert into `student`(`roll`,`name`,`marks`) values(%s,%s,%s)"
    val=(ids1,name1,marks1)
    cur.execute(d,val)
    sql.commit()
def update():
    ids1=ids.get()
    name1=name.get()
    sql=mysql.connector.connect(host="localhost",port=3307,user='root',password='',database='tkint')
    cur=sql.cursor()
    cur.execute("update student set name='"+name1+"' where roll='"+ids1+"'")
    sql.commit()

def delete():
    sql=mysql.connector.connect(host="localhost",port=3307,user='root',password='',database='tkint')
    cur=sql.cursor()
    cur.execute("delete from student where roll='"+ids1+"'")
    sql.commit()
def show():
    ids1=ids.get()
    sql=mysql.connector.connect(host="localhost",port=3307,user='root',password='',database='tkint')
    cur=sql.cursor()
    cur.execute("select * from student where roll='"+ids1+"'")
    res=cur.fetchall()
    count=cur.rowcount
    if count>0:
        for row in res:
            ids.set(row[0])
            name.set(row[1])
            marks.set(row[2])
    sql.close()
    sql.commit()

root=Tk()
root.geometry('400x400')
```

```
ids=StringVar()
name=StringVar()
marks=IntVar()

Label(root,text="Enter Roll").pack()
Entry(root,textvariable=ids).pack()
Label(root,text="Enter Name").pack()
Entry(root,textvariable=name).pack()
Label(root,text="Enter Marks").pack()
Entry(root,textvariable=marks).pack()

Button(root,text="Add",command=add).pack()
Button(root,text="Update",command=update).pack()
Button(root,text="Delete",command=delete).pack()
Button(root,text="Show",command=show).pack()

root.mainloop()
```

Output:

Conclusion: CRUD operations has been studied and implemented.