**SQL: MINI PROJECT**

**Aim:**

To Design a mini project using python as frontend and MySQL as database.

**Home Page**

**Code:**

import sqlite3

from tkinter import \*

from tkinter import messagebox

# Connect to SQLite database

mydb = sqlite3.connect("college.db")

mycursor = mydb.cursor()

# Function to create tables for course registration

def create\_tables():

mycursor.execute('''CREATE TABLE IF NOT EXISTS courses (

id INTEGER PRIMARY KEY,

name TEXT,

code TEXT,

instructor TEXT,

semester TEXT,

credit\_hours INTEGER)''')

mydb.commit() # Commit the changes after table creation

# Call create\_tables() function to ensure that the table exists

create\_tables()

# Function to register a course

def register\_course():

name = name\_entry.get()

code = code\_entry.get()

instructor = instructor\_entry.get()

semester = semester\_entry.get()

credit\_hours = int(credit\_hours\_entry.get())

sql = "INSERT INTO courses (name, code, instructor, semester, credit\_hours) VALUES (?, ?, ?, ?, ?)"

val = (name, code, instructor, semester, credit\_hours)

mycursor.execute(sql, val)

mydb.commit()

messagebox.showinfo("Success", "Course registered successfully!") # Show a message box

# Function to display course details

def display\_course\_details():

mycursor.execute("SELECT \* FROM courses")

course\_details = mycursor.fetchall()

# Create a new window to display course details

display\_window = Tk()

display\_window.title("Course Details")

for i, course in enumerate(course\_details):

course\_label = Label(display\_window, text=f"Course {i + 1}:")

course\_label.pack()

course\_info = f"Name: {course[1]}, Code: {course[2]}, Instructor: {course[3]}, Semester: {course[4]}, Credit Hours: {course[5]}"

course\_info\_label = Label(display\_window, text=course\_info)

course\_info\_label.pack()

# GUI

root = Tk()

root.title("Course Registration System")

# Course Registration Interface

name\_label = Label(root, text="Course Name:")

name\_label.grid(row=0, column=0)

name\_entry = Entry(root)

name\_entry.grid(row=0, column=1)

code\_label = Label(root, text="Course Code:")

code\_label.grid(row=1, column=0)

code\_entry = Entry(root)

code\_entry.grid(row=1, column=1)

instructor\_label = Label(root, text="Instructor:")

instructor\_label.grid(row=2, column=0)

instructor\_entry = Entry(root)

instructor\_entry.grid(row=2, column=1)

semester\_label = Label(root, text="Semester:")

semester\_label.grid(row=3, column=0)

semester\_entry = Entry(root)

semester\_entry.grid(row=3, column=1)

credit\_hours\_label = Label(root, text="Credit Hours:")

credit\_hours\_label.grid(row=4, column=0)

credit\_hours\_entry = Entry(root)

credit\_hours\_entry.grid(row=4, column=1)

# Register button

register\_btn = Button(root, text="Register Course", command=register\_course)

register\_btn.grid(row=5, columnspan=2)

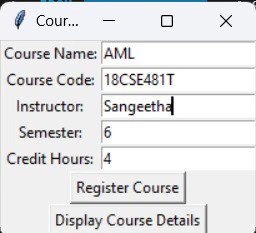
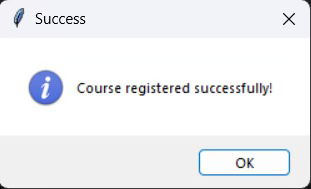
# Display button

display\_btn = Button(root, text="Display Course Details", command=display\_course\_details)

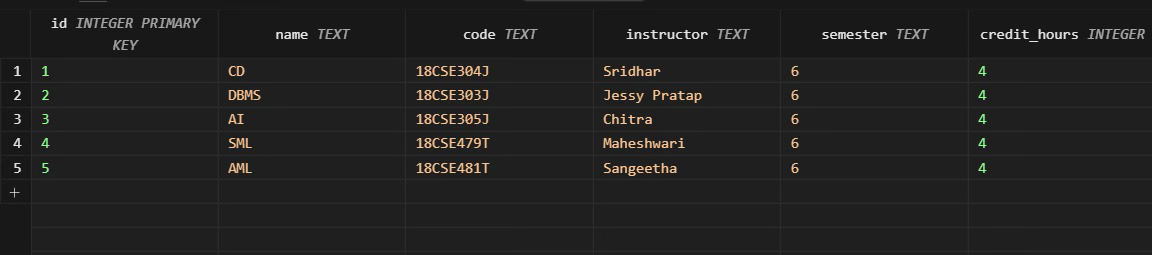
display\_btn.grid(row=6, columnspan=2)

root.mainloop()

**COURSE REGISTER:**



**DATABASE:**



**DISPLAY:**

