

ASSIGNMENT 2

Assignment Date	20/09/2022
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Maximum Marks	2 Marks

1.Create User table with email, user name, roll number, password.

Program:

```
import sqlite3
from sqlite3 import Error
def sql_connection():
    try:
        conn = sqlite3.connect('mydatabase.db')
        return conn
    except Error:
        print(Error)

def sql_table(conn):
    cursorObj = conn.cursor()
    # Create the table
    cursorObj.execute("CREATE TABLE salesman(salesman_id n(5), name char(30), city char(35),
    commission decimal(7,2));")
    # Insert records
```

```

cursorObj.executescript("""
INSERT INTO salesman VALUES(5001,'James Hoog', 'New York', 0.15);
INSERT INTO salesman VALUES(5002,'Nail Knite', 'Paris', 0.25);
INSERT INTO salesman VALUES(5003,'Pit Alex', 'London', 0.15);
INSERT INTO salesman VALUES(5004,'Mc Lyon', 'Paris', 0.35);
INSERT INTO salesman VALUES(5005,'Paul Adam', 'Rome', 0.45);
""")

conn.commit()

cursorObj.execute("SELECT * FROM salesman")

rows = cursorObj.fetchall()

print("Agent details:")

for row in rows:

    print(row)

sqlite_conn = sql_connection()

sql_table(sqlite_conn)

if (sqlite_conn):

    sqlite_conn.close()

print("\nThe SQLite connection is closed.")

```

Output:

Agent details:

(5001, 'James Hoog', 'New York', 0.15)

(5002, 'Nail Knite', 'Paris', 0.25)

(5003, 'Pit Alex', 'London', 0.15)

(5004, 'Mc Lyon', 'Paris', 0.35)

(5005, 'Paul Adam', 'Rome', 0.45)

The SQLite connection is closed.

2. Perform UPDATE, DELETE Queries with user table.

Program:

Source Code

```
from tabulate import tabulate
```

```
import mysql.connector
```

```
con = mysql.connector.connect(host="localhost", user="root", password="root",  
database="python_db")
```

```
def insert(name, age, city):
```

```
    res = con.cursor()
```

```
    sql = "insert into users (name,age,city) values (%s,%s,%s)"
```

```
    user = (name, age, city)
```

```
    res.execute(sql, user)
```

```
    con.commit()
```

```
    print("Data Insert Success")
```

```
def update(name, age, city,id):
```

```
    res = con.cursor()
```

```
    sql = "update users set name=%s,age=%s,city=%s where id=%s"
```

```
    user = (name, age, city,id)
```

```
    res.execute(sql, user)
```

```
    con.commit()
```

```
    print("Data Update Success")
```

def select():

```
    res = con.cursor()
    sql = "SELECT ID,NAME,AGE,CITY from users"
    res.execute(sql)
    # result=res.fetchone()
    # result=res.fetchmany(2)
    result = res.fetchall()
    print(tabulate(result, headers=["ID", "NAME", "AGE", "CITY"]))
```

def delete(id):

```
    res = con.cursor()
    sql = "delete from users where id=%s"
    user = (id,)
    res.execute(sql, user)
    con.commit()
    print("Data Delete Success")
```

while True:

```
    print("1.Insert Data")
    print("2.Update Data")
    print("3.Select Data")
    print("4.Delete Data")
    print("5.Exit")
    choice = int(input("Enter Your Choice : "))
```

```
if choice == 1:
    name = input("Enter Name : ")
    age = input("Enter Age : ")
    city = input("Enter City : ")
    insert(name, age, city)
elif choice == 2:
    id = input("Enter The Id : ")
    name = input("Enter Name : ")
    age = input("Enter Age : ")
    city = input("Enter City : ")
    update(name, age, city, id)
elif choice == 3:
    select()
elif choice == 4:
    id = input("Enter The Id to Delete : ")
    delete(id)
elif choice == 5:
    quit()
else:
    print("Invalid Selection . Please Try Again !")
```

Output:

- 1.Insert Data
- 2.Update Data
- 3.Select Data
- 4.Delete Data
- 5.Exit

Enter Your Choice : 1

Enter Name : Priya

Enter Age : 21

Enter City : Hosur

Data Insert Success

1.Insert Data

2.Update Data

3.Select Data

4.Delete Data

5.Exit

Enter Your Choice : 2

Enter The Id : 1

Enter Name : Harish

Enter Age : 22

Enter City : Salem

Data Update Success

1.Insert Data

2.Update Data

3.Select Data

4.Delete Data

5.Exit

Enter Your Choice : 4

Enter The Id to Delete : 3

Data Delete Success

1.Insert Data

2.Update Data

3.Select Data

4.Delete Data

5.Exit

Enter Your Choice : 3

ID	NAME	AGE	CITY
1	Harish	22	Salem
2	Pooja	23	Chennai
4	Ram	21	Namakkal
6	Priya	21	Hosur

1.Insert Data

2.Update Data

3.Select Data

4.Delete Data

5.Exit

Enter Your Choice : 5

Process finished with exit code 0

3.Connect python code to db2.

```

1  import pyodbc
2  import os
3
4  pw = os.environ.get("DB2PW")
5  user = os.environ.get("DB2USER")
6
7  con = pyodbc.connect("DSN=testpython;UID="+user+";PWD="+pw)
8
9  print("connected")
10
11
12  cur = con.cursor()
13
14  cur.execute("SELECT PROD_NAME from prod")
15
16  data = cur.fetchall()
17
18  print(data)
19

```

Output:

```
1 import pyodbc
2 import os
3
4 pw = os.environ.get("DB2PW")
5 user = os.environ.get("DB2USER")
6
7 con = pyodbc.connect("DSN=testpython;UID="+user+";PWD="+pw)
8
9 print("connected")
10
11
12 cur = con.cursor()
+~
```

Windows PowerShell
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Lernen Sie das neue plattformübergreifende PowerShell kennen - <https://aka.ms/pscore6>

PS C:\Users\Moham\OneDrive\Desktop\brahamcreation2go> python brahamcreation2go.py
connected
[('banana',), ('apple',), ('pomegranate',)]
PS C:\Users\Moham\OneDrive\Desktop\brahamcreation2go>

4. Create a flask app with registration page, login page and welcome page. By default load the registration page once the user enters all the fields store the data in database and navigate to login page. Authenticate user with username and password. If the user is valid show the welcome page.

Program:

Store this code in 'app.py' file

```
from flask import Flask, render_template, request, redirect, url_for, session
```

```
from flask_mysql import MySQL
```

```
import MySQLdb.cursors
```

```
import re
```

```
app = Flask(__name__)
```



```
app.secret_key = 'your secret key'
```

```
app.config['MYSQL_HOST'] = 'localhost'
```

```
app.config['MYSQL_USER'] = 'root'
```

```
app.config['MYSQL_PASSWORD'] = 'your password'
```

```
app.config['MYSQL_DB'] = 'geeklogin'
```

```
mysql = MySQL(app)
```

```
@app.route('/')
```

```
@app.route('/login', methods=['GET', 'POST'])
```

```
def login():
```

```
    msg = "
```

```
    if request.method == 'POST' and 'username' in request.form and 'password' in request.form:
```

```
        username = request.form['username']
```

```
        password = request.form['password']
```

```
        cursor = mysql.connection.cursor(MySQLdb.cursors.DictCursor)
```

```
        cursor.execute('SELECT * FROM accounts WHERE username = % s AND password = % s', (username, password, ))
```

```
        account = cursor.fetchone()
```

```
        if account:
```

```
            session['loggedin'] = True
```

```
            session['id'] = account['id']
```

```
            session['username'] = account['username']
```

```
            msg = 'Logged in successfully !'
```

```
            return render_template('index.html', msg = msg)
```

```
        else:
```

```
            msg = 'Incorrect username / password !'
```

```
return render_template('login.html', msg = msg)
```

```
@app.route('/logout')
```

```
def logout():
```

```
    session.pop('loggedin', None)
```

```
    session.pop('id', None)
```

```
    session.pop('username', None)
```

```
    return redirect(url_for('login'))
```

```
@app.route('/register', methods=['GET', 'POST'])
```

```
def register():
```

```
    msg = "
```

```
    if request.method == 'POST' and 'username' in request.form and 'password' in request.form and  
'email' in request.form :
```

```
        username = request.form['username']
```

```
        password = request.form['password']
```

```
        email = request.form['email']
```

```
        cursor = mysql.connection.cursor(MySQLdb.cursors.DictCursor)
```

```
        cursor.execute('SELECT * FROM accounts WHERE username = % s', (username, ))
```

```
        account = cursor.fetchone()
```

```
        if account:
```

```
            msg = 'Account already exists !'
```

```
        elif not re.match(r'^@]+@[^@]+\.[^@]+', email):
```

```
            msg = 'Invalid email address !'
```

```
        elif not re.match(r'[A-Za-z0-9]+', username):
```

```
            msg = 'Username must contain only characters and numbers !'
```

```
        elif not username or not password or not email:
```

```
            msg = 'Please fill out the form !'
```

```
        else:
```

```

        cursor.execute('INSERT INTO accounts VALUES (NULL, % s, % s, % s)', (username, password, email,
    ))

    mysql.connection.commit()

    msg = 'You have successfully registered !'

elif request.method == 'POST':

    msg = 'Please fill out the form !'

return render_template('register.')
```

<!-- Store this code in 'login.html' file inside the 'templates' folder -->

```

<html>

<head>

    <meta charset="UTF-8">

    <title> Login </title>

    <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

</head>

<body></br></br></br></br></br>

    <div align="center">

        <div align="center" class="border">

            <div class="header">

                <h1 class="word">Login</h1>

            </div></br></br></br>

            <h2 class="word">

                <form action="{{ url_for('login') }}" method="post">

                    <div class="msg">{{ msg }}</div>

                        <input id="username" name="username" type="text" placeholder="Enter Your Username"
class="textbox"/></br></br>

                            <input id="password" name="password" type="password" placeholder="Enter Your
Password" class="textbox"/></br></br></br>
```

```

        <input type="submit" class="btn" value="Sign In"></br></br>

    </form>

</h2>

    <p class="bottom">Don't have an account? <a class="bottom" href="{{url_for('register')}}"> Sign
Up here</a></p>

</div>

</div>

</body>

</html>

```

<!-- Store this code in 'register.html' file inside the 'templates' folder -->

```

<html>

<head>

    <meta charset="UTF-8">

    <title> Register </title>

    <link rel="stylesheet" href="{{ url_for('static', filename='style.css') }}">

</head>

<body></br></br></br></br></br>

    <div align="center">

        <div align="center" class="border">

            <div class="header">

                <h1 class="word">Register</h1>

            </div></br></br></br>

            <h2 class="word">

                <form action="{{ url_for('register') }}" method="post">

                    <div class="msg">{{ msg }}</div>

```

```
<input id="username" name="username" type="text" placeholder="Enter Your Username"
class="textbox"/></br></br>
```

```
<input id="password" name="password" type="password" placeholder="Enter Your
Password" class="textbox"/></br></br>
```

```
<input id="email" name="email" type="text" placeholder="Enter Your Email ID"
class="textbox"/></br></br>
```

```
<input type="submit" class="btn" value="Sign Up"></br>
```

```
</form>
```

```
</h2>
```

```
<p class="bottom">Already have an account? <a class="bottom" href="{{url_for('login')}}"> Sign
In here</a></p>
```

```
</div>
```

```
</div>
```

```
</body>
```

```
</html>
```

```
/* Store this code in 'style.css' file inside the 'static' folder*/
```

```
.header{
    padding: 5px 120px;
    width: 150px;
    height: 70px;
    background-color: #236B8E;
}
```

```
.border{
    padding: 80px 50px;
    width: 400px;
    height: 450px;
```

```
border: 1px solid #236B8E;  
border-radius: 0px;  
background-color: #9AC0CD;  
}
```

```
.btn {  
padding: 10px 40px;  
background-color: #236B8E;  
color: #FFFFFF;  
font-style: oblique;  
font-weight: bold;  
border-radius: 10px;  
}
```

```
.textbox{  
padding: 10px 40px;  
background-color: #236B8E;  
text-color: #FFFFFF;  
border-radius: 10px;  
}
```

```
::placeholder {  
color: #FFFFFF;  
opacity: 1;  
font-style: oblique;  
font-weight: bold;  
}
```

```
.word{
```

```
color: #FFFFFF;  
font-style: oblique;  
font-weight: bold;  
}
```

```
.bottom{  
color: #236B8E;  
font-style: oblique;  
font-weight: bold;  
}
```

Output:



Login

Enter Your Username

Enter Your Password

Sign In

Don't have an account? [Sign Up here](#)

Register

Enter Your Username

Enter Your Password

Enter Your Email ID

Sign Up

Already have an account? [Sign In here](#)

Register

You have successfully registered!

Enter Your Username

Enter Your Password

Enter Your Email ID

Sign Up

Already have an account? [Sign In here](#)

