

## PYTHON CODE-

```
import mysql.connector

# Database connection
dataBase = mysql.connector.connect(
    host="localhost",
    user="root",
    passwd="Meerut@321",
    database="stud_management",
    auth_plugin='mysql_native_password'
)

# Creating a cursor object
cursorObject = dataBase.cursor()

def register_user():
    username = input("Enter a new username: ")
    password = input("Enter a new password: ")
    phone_number = input("Enter your phone number: ")

    sql = "INSERT INTO users (username, password_hash, phone_number) VALUES (%s, %s, %s)"
    val = (username, password, phone_number) # Storing plain text password
    try:
        cursorObject.execute(sql, val)
        dataBase.commit()
        print("User registered successfully.\n")
    except mysql.connector.Error as err:
        print(f"Error: {err}")

def login_user():
    username = input("Enter your username: ")
    password = input("Enter your password: ")

    sql = "SELECT password_hash FROM users WHERE username = %s"
    cursorObject.execute(sql, (username,))
    result = cursorObject.fetchone()

    if result and result[0] == password: # Checking plain text password
        print("Login successful!\n")
        return True
    else:
        print("Invalid username or password.\n")
        return False

def add_student():
    student_id = input("Enter Student ID: ")
    name = input("Enter Student Name: ")
```

```

age = int(input("Enter the age: "))
course = input("Enter the Course: ")
sql = "INSERT INTO s_students (roll_number, s_name, age, course) VALUES (%s,
%s, %s, %s)"
val = (student_id, name, age, course)
cursorObject.execute(sql, val)
dataBase.commit()
print("Student added successfully.\n")

def update_student():
    student_id = input("Enter Student ID to update: ")
    name = input("Enter new Student Name: ")
    age = int(input("Enter the age: "))
    course = input("Enter the Course: ")
    sql = "UPDATE s_students SET s_name = %s, age = %s, course = %s WHERE
roll_number = %s"
    val = (name, age, course, student_id)
    cursorObject.execute(sql, val)
    dataBase.commit()
    print("Student updated successfully.\n")

def delete_student():
    student_id = input("Enter Student ID to delete: ")
    sql = "DELETE FROM s_students WHERE roll_number = %s"
    val = (student_id,)
    cursorObject.execute(sql, val)
    dataBase.commit()
    print("Student deleted successfully.\n")

def view_students():
    query = "SELECT * FROM s_students"
    cursorObject.execute(query)
    myresult = cursorObject.fetchall()
    print("Student Records:")
    for x in myresult:
        print(x)
    print()

def main():
    while True:
        print("Welcome to the Student Management System")
        print("1. Register ")
        print("2. Login ")
        print("3. Logout")

        choice = input("Enter your choice: ")

        if choice == '1':
            register_user()

```

```

elif choice == '2':
    if login_user():
        while True:
            print("1. Add Student")
            print("2. Update Student")
            print("3. Delete Student")
            print("4. View Students")
            print("5. Logout")

            action = input("Enter your choice: ")

            if action == '1':
                add_student()
            elif action == '2':
                update_student()
            elif action == '3':
                delete_student()
            elif action == '4':
                view_students()
            elif action == '5':
                print("Logging out.")
                break
            else:
                print("Invalid choice. Please try again.")
elif choice == '3':
    print("Exiting the program.")
    break
else:
    print("Invalid choice. Please try again.")

# Closing database connection
dataBase.close()

if __name__ == "__main__":
    main()

```

## DATABASE -

```

CREATE DATABASE stud_management;
USE stud_management;

```

```

CREATE TABLE users (
    username VARCHAR(100) PRIMARY KEY,
    password_hash VARCHAR(64),
    phone_number VARCHAR(15)
);

```

```
CREATE TABLE s_students (  
    roll_number VARCHAR(10) PRIMARY KEY,  
    s_name VARCHAR(100),  
    age INT,  
    course VARCHAR(50)  
);
```

## SCREENSHOTS-

```
D:\python_projects\stud_management\venv\Scripts\python.exe D:\python_projects\stud_manage  
Welcome to the Student Management System  
1. Register  
2. Login  
3. Logout  
Enter your choice: 1  
Enter a new username: aayushi  
Enter a new password: 1234  
Enter your phone number: 8985857677  
User registered successfully.  
  
Welcome to the Student Management System  
1. Register  
2. Login  
3. Logout  
Enter your choice: 2  
Enter your username: aayushi  
Enter your password: 1234  
Login successful!  
  
1. Add Student  
2. Update Student  
3. Delete Student  
4. View Students
```

```
111 Login successful!
112
113 1. Add Student
114 2. Update Student
115 3. Delete Student
116 4. View Students
117 5. Logout
118 Enter your choice: 1
119 Enter Student ID: 52
120 Enter Student Name: aayush
121 Enter the age: 22
122 Enter the Course: btech
123 Student added successfully.
124
125 1. Add Student
126 2. Update Student
127 3. Delete Student
128 4. View Students
129 5. Logout
130 Enter your choice: 1
131 Enter Student ID: 36
132 Enter Student Name: ram
133 Enter the age: 34
134 Enter the Course: bca
```

```
111 Enter the Course: bca
112 Student added successfully.
113
114 1. Add Student
115 2. Update Student
116 3. Delete Student
117 4. View Students
118 5. Logout
119 Enter your choice: 4
120 Student Records:
121 ('202', 'sarvi', 24, 'mca')
122 ('34', 'shweta', 22, 'btech')
123 ('35', 'savi', 23, 'mca')
124 ('36', 'ram', 34, 'bca')
125 ('46', 'varnika', 27, 'btecch')
126 ('52', 'aayush', 22, 'btech')
127 ('80', 'akanksha', 78, 'mca')
128
129 1. Add Student
130 2. Update Student
131 3. Delete Student
132 4. View Students
133 5. Logout
134 Enter your choice:
```

```
Project > stud_management D:\python_projects\stud_management
  > venv library root
  > Lib
  > Scripts
  > .gitignore
  > pyvenv.cfg
  > stud.py
  > External Libraries
  > Scratches and Consoles

Run stud
111 5. Logout
112 Enter your choice: 1
113 Enter Student ID: 52
114 Enter Student Name: aayush
115 Enter the age: 22
116 Enter the Course: btech
117 Student added successfully.
118
119 1. Add Student
120 2. Update Student
121 3. Delete Student
122 4. View Students
123 5. Logout
124 Enter your choice: 1
125 Enter Student ID: 36
126 Enter Student Name: ram
127 Enter the age: 34
128 Enter the Course: bca
129 Student added successfully.
130
131 1. Add Student
132 2. Update Student
133 3. Delete Student
134 4. View Students
135 5. Logout

stud_management > stud.py
100:36 CRLF UTF-8 4 spaces Python 3.12 (stud_management)
```

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  > venv library root
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Run stud
111 2. Update Student
112 3. Delete Student
113 4. View Students
114 5. Logout
115 Enter your choice: 4
116 Student Records:
117 ('202', 'sarvi', 24, 'mca')
118 ('34', 'shweta', 22, 'btech')
119 ('35', 'savi', 23, 'mca')
120 ('36', 'ram', 34, 'bca')
121 ('46', 'varnika', 27, 'btech')
122 ('52', 'aayush', 22, 'btech')
123 ('80', 'akanksha', 78, 'mca')
124
125 1. Add Student
126 2. Update Student
127 3. Delete Student
128 4. View Students
129 5. Logout
130 Enter your choice: 2
131 Enter Student ID to update: 202
132 Enter new Student Name: wasim
133 Enter the age: 34
134 Enter the Course: btech

stud_management > stud.py
100:36 CRLF UTF-8 4 spaces Python 3.12 (stud_management)
```

```
111 2. Update Student
112 3. Delete Student
113 4. View Students
114 5. Logout
115 Enter your choice: 4
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```
111 Enter new Student Name: wasim
112 Enter the age: 34
113 Enter the Course: btech
114 Student updated successfully.
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116 1. Add Student
117 2. Update Student
118 3. Delete Student
119 4. View Students
120 5. Logout
121 Enter your choice: 4
122 Student Records:
123 ('202', 'wasim', 34, 'btech')
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125 ('35', 'savi', 23, 'mca')
126 ('36', 'ram', 34, 'bca')
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128 ('52', 'aayush', 22, 'btech')
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