

PartB 7

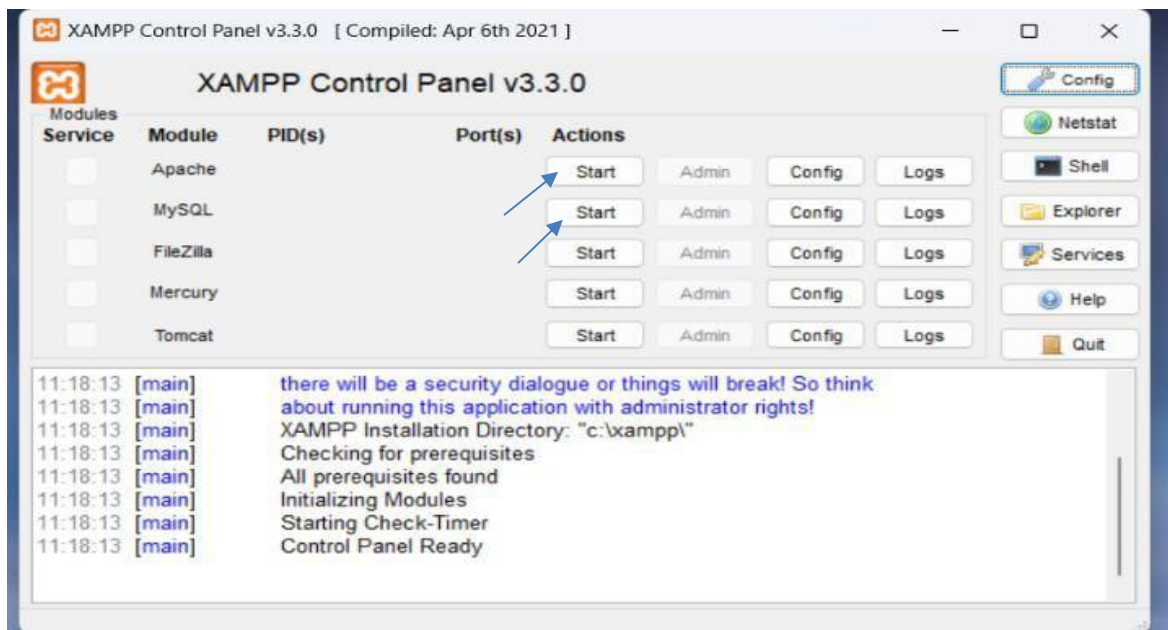
Create a table electricity_bill(TariffCode, Customer_Name, Meter Number, Previous_Reading and Current_Reading) using MySQL and perform the followings

- To accept the details of employees and store it in database.
- To Update the Customer details by Meter Number.
- Calculate Bill of Particular Customer using below criteria.

Tariff Code	Units Consumed	Rate/Unit
LT1	0-30	2.0
	31-100	3.5
	101-200	4.5
	Above 200	5.0
LT2	0-30	3.5
	31-100	5.0
	101-200	6.0
	Above 200	7.5

Procedure:

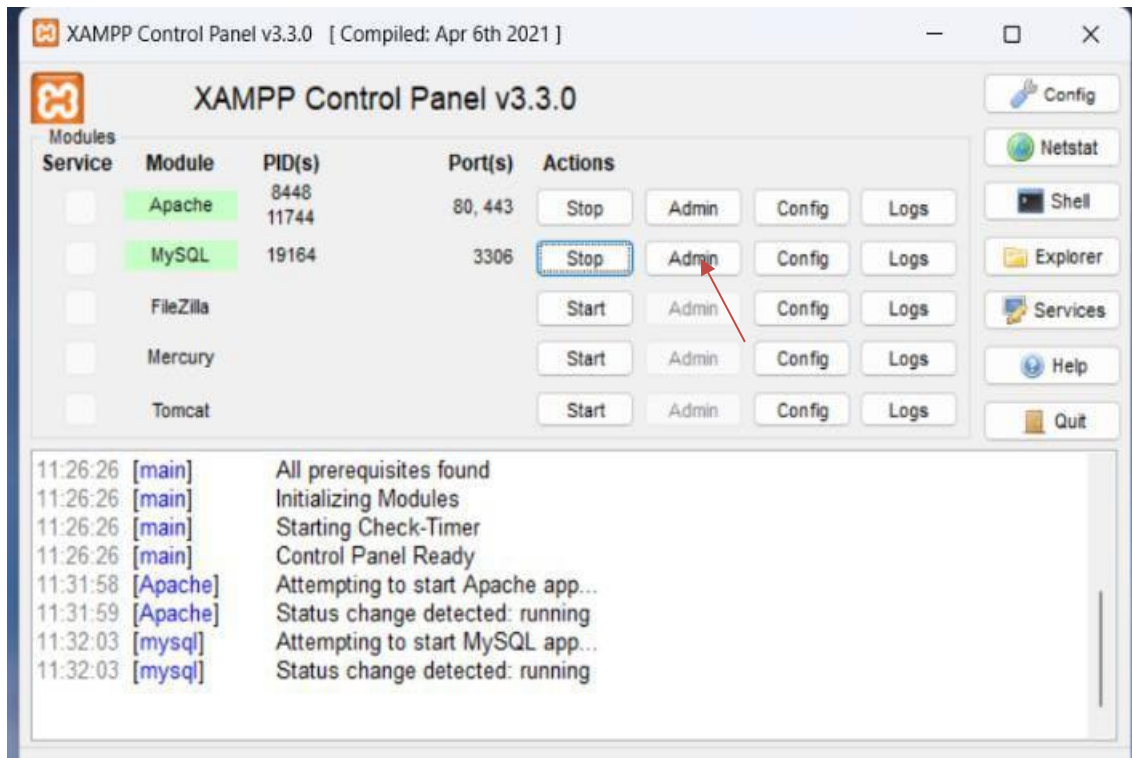
In search bar- Search Xampp control panel

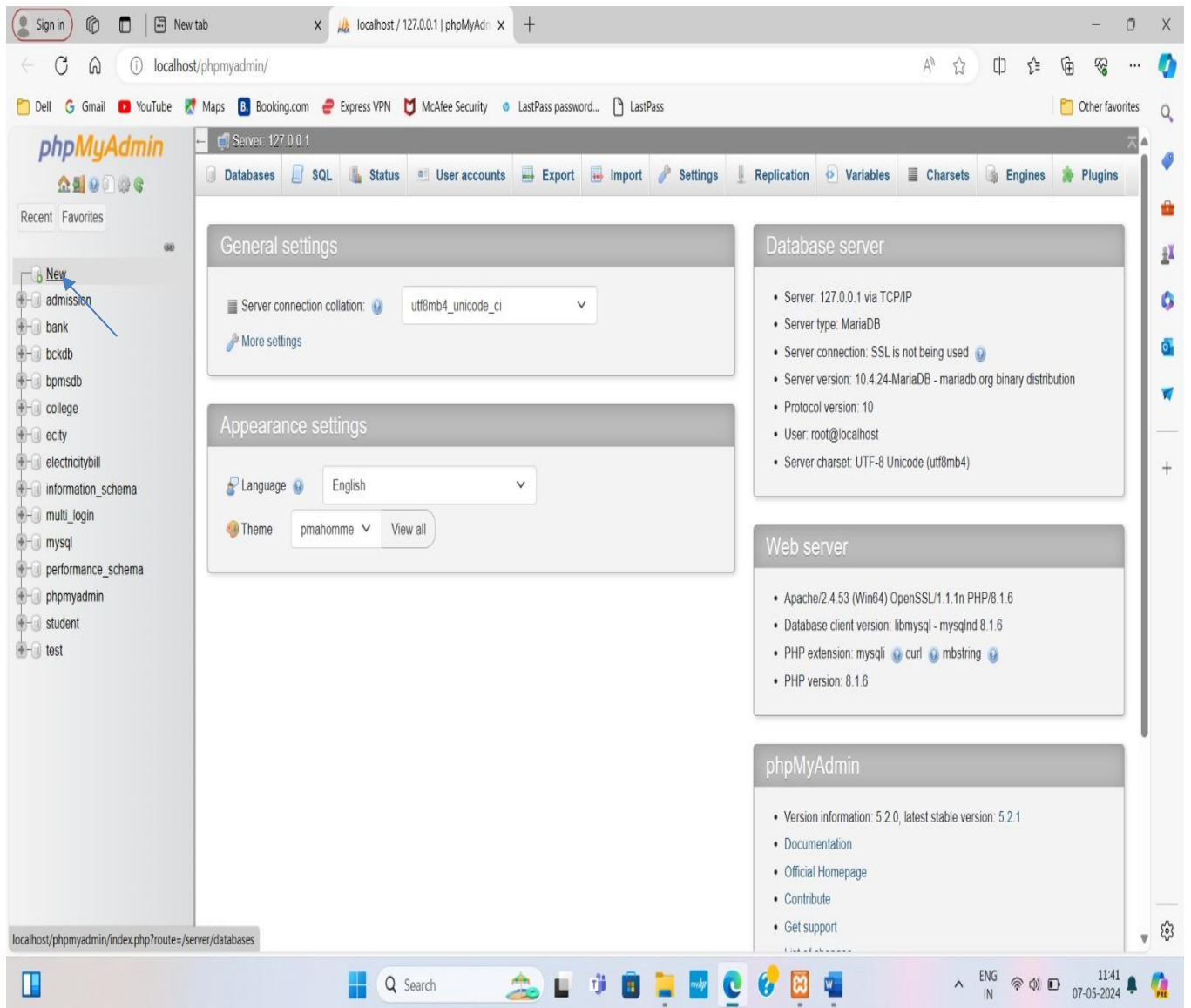


Then click on apache -> start

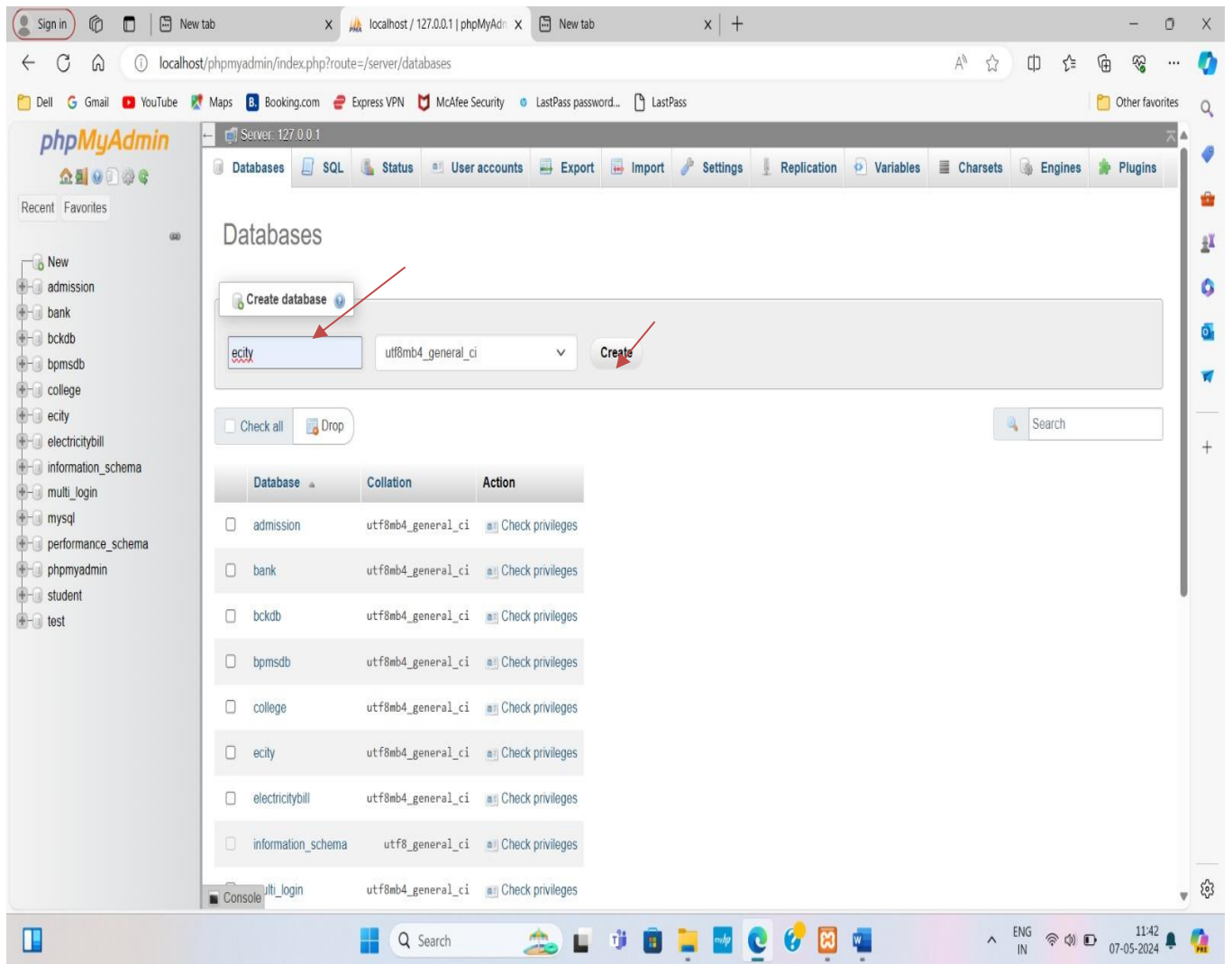
And MySQL-> start

Then click on MySQL-> Admin





Then click on New



Create new database as ecity

Then click on create

Code:

```
import mysql.connector
```

```
cnx = mysql.connector.connect(
```

```
    host='localhost',
```

```
    user='root',
```

```
    password="",
```

```
    database='ecity'
```

```
)
```

```
cursor = cnx.cursor()
```

```
create_table_query = """
```

```
CREATE TABLE IF NOT EXISTS electricity_bill(
```

```
    tariffCode VARCHAR(10),
```

```
    customer_name VARCHAR(50),
```

```
    meter_number VARCHAR(50),
```

```
    previous_reading INT,
```

```
    current_reading INT
```

```
)
```

```
"""
```

```
cursor.execute(create_table_query)
```

```
def insert_bill_details(tariff_code, customer_name, meter_number, previous_reading,  
current_reading):
```

```
    insert_query = """
```

```
    INSERT INTO electricity_bill(tariffCode, customer_name, meter_number, previous_reading,  
current_reading)
```

```
    VALUES(%s, %s, %s, %s, %s)
```

```
    """
```

```
    values = (tariff_code, customer_name, meter_number, previous_reading, current_reading)
```

```
    cursor.execute(insert_query, values)
```

```
    cnx.commit()
```

```
    print("Bill details inserted successfully")
```

```
def update_customer_details(meter_number, new_customer_name):
```

```
    update_query = """
```

```
    UPDATE electricity_bill
```

```
    SET customer_name=%s
```

```
WHERE meter_number=%s
```

```
"""
```

```
values = (new_customer_name, meter_number)
```

```
cursor.execute(update_query, values)
```

```
cnx.commit()
```

```
print("Customer details updated successfully")
```

```
def calculate_bill(meter_number):
```

```
    select_query = """
```

```
    SELECT tariffCode, current_reading, previous_reading
```

```
    FROM electricity_bill
```

```
    WHERE meter_number=%s
```

```
    """
```

```
    values = (meter_number,)
```

```
    cursor.execute(select_query, values)
```

```
    result = cursor.fetchone()
```

```
    if result is None:
```

```
        print("Meter number not found")
```

```
        return
```

```
    tariff_code = result[0]
```

```
    cr1 = result[1]
```

```
    pr1 = result[2]
```

```
    units_consumed = cr1 - pr1
```

```
    print("Current reading =", cr1)
```

```
    print("Previous reading =", pr1)
```

```
    print("Units consumed =", units_consumed)
```

```
    rate_per_unit = 0.0
```

```
if tariff_code == "LT1":
    if units_consumed <= 30:
        rate_per_unit = 2.0
    elif units_consumed <= 100:
        rate_per_unit = 3.5
    elif units_consumed <= 200:
        rate_per_unit = 4.5
    else:
        rate_per_unit = 5.0
elif tariff_code == "LT2":
    if units_consumed <= 30:
        rate_per_unit = 3.5
    elif units_consumed <= 100:
        rate_per_unit = 5.0
    elif units_consumed <= 200:
        rate_per_unit = 6.0
    else:
        rate_per_unit = 7.5
else:
    print("Invalid Tariff code")
    return

bill_amount = units_consumed * rate_per_unit

print(f"Bill amount for Meter number {meter_number}: {bill_amount}")

name = input("Enter Customer name: ")
meter_no = input("Enter meter number: ")
p_read = int(input("Enter previous reading: "))
```

```
c_read = int(input("Enter current reading: "))
```

```
lt = input("Enter LT1 or LT2: ")
```

```
insert_bill_details(lt, name, meter_no, p_read, c_read)
```

```
update_customer_details(meter_no, name)
```

```
calculate_bill(meter_no)
```

Output:

```
===== RESTART: C:\Users\shrin\OneDrive\Desktop\python\part b\partb7.py ==
Enter Customer name: Dhanu
Enter meter number: 12
Enter previous reading: 200
Enter current reading: 500
Enter LT1 or LT2: LT1
Bill details inserted successfully
Customer details updated successfully
Current reading = 500
Previous reading = 200
Units consumed = 300
Bill amount for Meter number 12: 1500.0

===== RESTART: C:\Users\shrin\OneDrive\Desktop\python\part b\partb7.py ==
Enter Customer name: Ramya
Enter meter number: 456
Enter previous reading: 200
Enter current reading: 500
Enter LT1 or LT2: LT2
Bill details inserted successfully
Customer details updated successfully
Current reading = 500
Previous reading = 200
Units consumed = 300
Bill amount for Meter number 456: 2250.0
```