

PRAKTIK PEMROGRAMAN PYTHON
MEMBUAT DAN MENGINPUTKAN DATA KE DATABASE



Nama:

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Dosen :

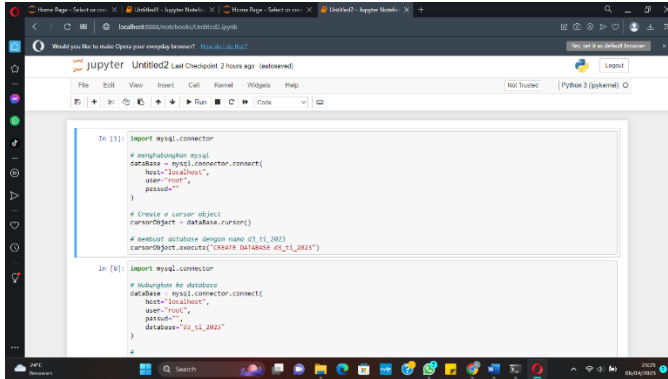
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PS D-III TEKNIK INFORMATIKA
SEKOLAH VOKASI
UNIVERSITAS SEBELAS MARET
2023

BAB I

HASIL DAN PEMBAHASAN

1. Membuat Database



```
In [1]: import mysql.connector

# Menghubungkan ke mysql
database = mysql.connector.connect(
    host="localhost",
    user="root",
    password=""
)

# Create a cursor object
cursorObject = database.cursor()

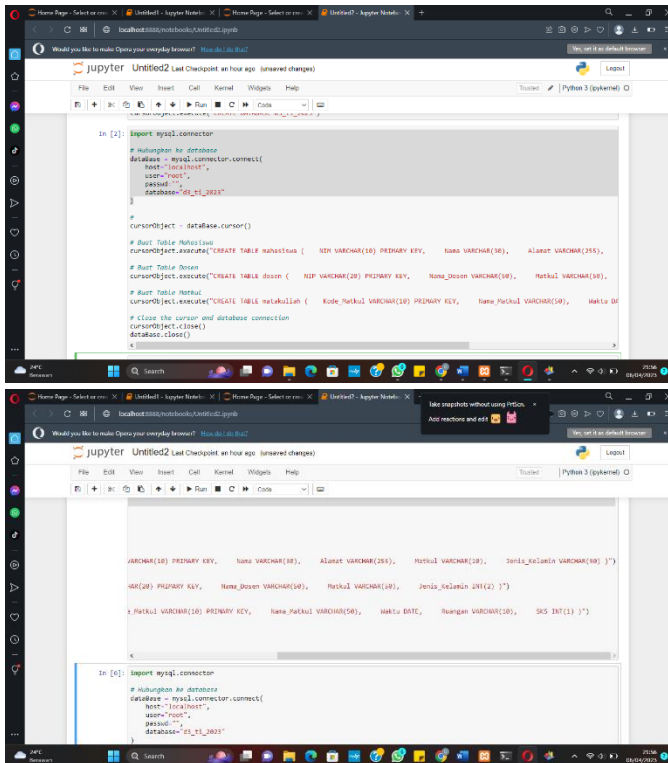
# membuat database dengan nama db_tk_2023
cursorObject.execute("CREATE DATABASE db_tk_2023")

In [8]: import mysql.connector

# Menghubungkan ke database
database = mysql.connector.connect(
    host="localhost",
    user="root",
    password=""
)

# Close the cursor and database connection
database.close()
```

2. Mengkoneksikan ke database dan membuat tabel



```
In [2]: import mysql.connector

# Menghubungkan ke database
database = mysql.connector.connect(
    host="localhost",
    user="root",
    password=""
)

# Create a cursor object
cursorObject = database.cursor()

# Buat Table Mahasiswa
cursorObject.execute("CREATE TABLE mahasiswa (
    NIM VARCHAR(10) PRIMARY KEY,
    Nama VARCHAR(50),
    Alamat VARCHAR(255),
    NoHp VARCHAR(15)
)")

# Buat Table Dosen
cursorObject.execute("CREATE TABLE dosen (
    NIP VARCHAR(20) PRIMARY KEY,
    Nama_Dosen VARCHAR(50),
    Matakuliah VARCHAR(50),
    Kode_Matakuliah VARCHAR(20)
)")

# Buat Table Matakuliah
cursorObject.execute("CREATE TABLE matakuliah (
    Kode_Matakuliah VARCHAR(20) PRIMARY KEY,
    Nama_Matakuliah VARCHAR(50),
    Hari VARCHAR(10),
    Waktu VARCHAR(10),
    Dosen VARCHAR(50),
    NIM VARCHAR(10)
)")

# Close the cursor and database connection
database.close()
```

```
/*
 * Author: [Your Name]
 * Date: [Date]
 * Description: This script creates three tables: mahasiswa, dosen, and matakuliah.
 */

-- Create Table mahasiswa
CREATE TABLE mahasiswa (
    NIM VARCHAR(10) PRIMARY KEY,
    Nama VARCHAR(50),
    Alamat VARCHAR(255),
    NoHp VARCHAR(15)
)

-- Create Table dosen
CREATE TABLE dosen (
    NIP VARCHAR(20) PRIMARY KEY,
    Nama_Dosen VARCHAR(50),
    Matakuliah VARCHAR(50),
    Kode_Matakuliah VARCHAR(20)
)

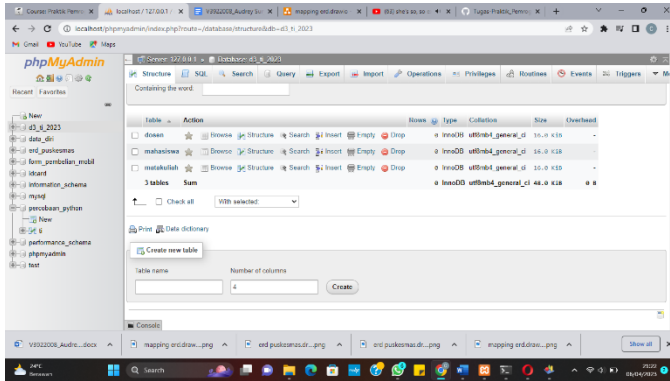
-- Create Table matakuliah
CREATE TABLE matakuliah (
    Kode_Matakuliah VARCHAR(20) PRIMARY KEY,
    Nama_Matakuliah VARCHAR(50),
    Hari VARCHAR(10),
    Waktu VARCHAR(10),
    Dosen VARCHAR(50),
    NIM VARCHAR(10)
)
```

```
In [6]: import mysql.connector

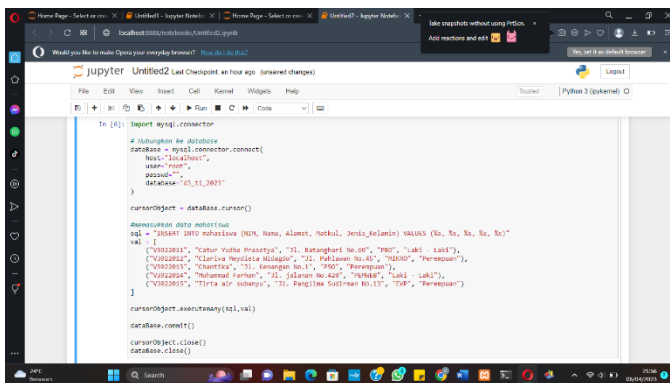
# Menghubungkan ke database
database = mysql.connector.connect(
    host="localhost",
    user="root",
    password=""
)

# Close the cursor and database connection
database.close()
```

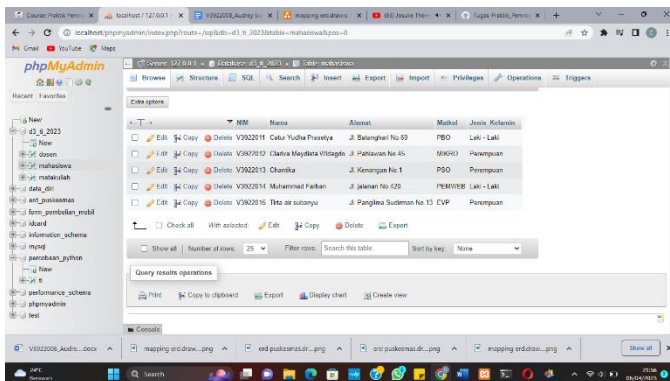
Hasil



3. Menginputkan 5 data mahasiswa



Hasil



4. Menginputkan 5 data Dosen

```
In [10]: import mysql.connector

# Menghubungkan ke database
database = mysql.connector.connect(
    host="localhost",
    user="root",
    password="",
    database="d1_11_2023"
)

cursorObject = database.cursor()

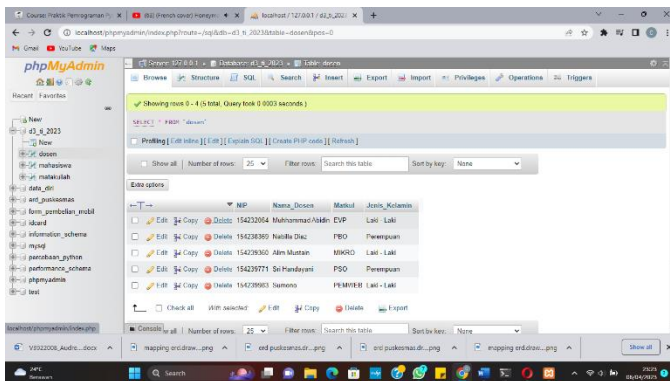
# Menusukkan data ke database
sql = "INSERT INTO dosen (id_d, nama_dosen, mskul, jenis_kelamin) VALUES (%s, %s, %s, %s)"
val = [
    ("15423054", "Muhammad Adnan", "PBO", "Perempuan"),
    ("15423058", "Alin Mustika", "MKGRO", "Laki Laki"),
    ("15423071", "Sci Herdiansyah", "PSO", "Perempuan"),
    ("15423081", "Summa", "PBMH", "Laki Laki"),
    ("15423084", "Muhammad Asyraf", "GMP", "Laki Laki")
]

cursorObject.executemany(sql, val)

database.commit()

cursorObject.close()
database.close()
```

Hasil



5. Menginputkan 5 data Mata Kuliah

```
In [10]: import mysql.connector

# Menghubungkan ke database
database = mysql.connector.connect(
    host="localhost",
    user="root",
    password="",
    database="d1_11_2023"
)

cursorObject = database.cursor()

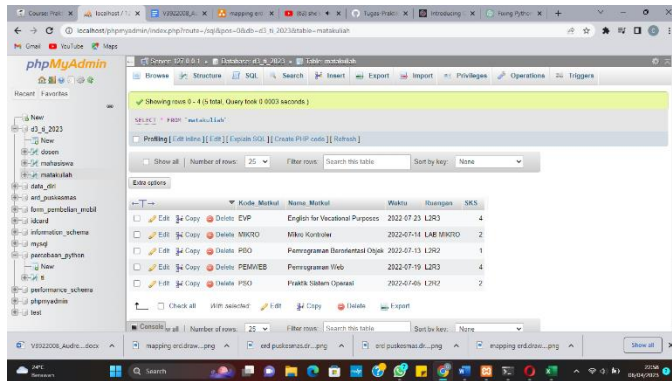
# Menusukkan data ke database
sql = "INSERT INTO matakuliah (kode_makul, nama_makul, waktu, ruangan, sks) VALUES (%s, %s, %s, %s, %s)"
val = [
    ("780", "Penerjemahan dan Interpretasi Bahasa", "1800-19.30", "L101", "3"),
    ("780", "Materi Kuantitatif", "1800-19.30", "L101", "3"),
    ("780", "Praktik Sistem Operasi", "1800-19.30", "L101", "3"),
    ("780", "Penerjemahan dan Interpretasi Bahasa", "1800-19.30", "L101", "3"),
    ("780", "Penerjemahan dan Interpretasi Bahasa", "1800-19.30", "L101", "3")
]

cursorObject.executemany(sql, val)

database.commit()

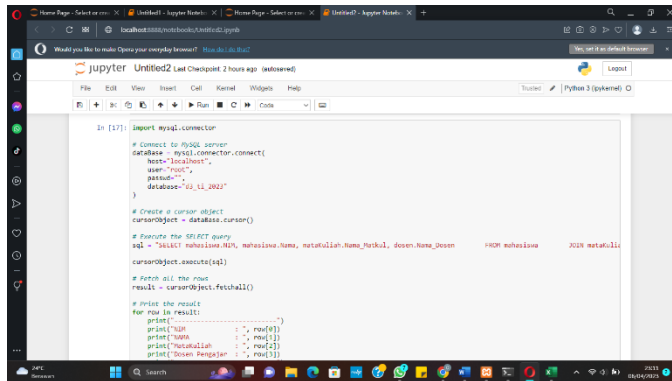
cursorObject.close()
database.close()
```

Hasil



Kode	Matrik	Nama	Matrikul	Program	SAK
		English for Vocational Purposes	2022-07-23	L202	4
		Mikro Kontroler	2022-07-18	L48-BK020	2
		Penerjemahan Berorientasi Objek	2022-07-13	L202	1
		Penerjemahan Web	2022-07-19	L202	4
		Pirata Sistem Operasi	2022-07-05	L202	2

6. Tampilkan data Select



```
In [17]: import pymysql.connector

# Connect to MySQL server
database = pymysql.connector.connect(
    host="localhost",
    user="root",
    password="",
    database="td_11_2022"
)

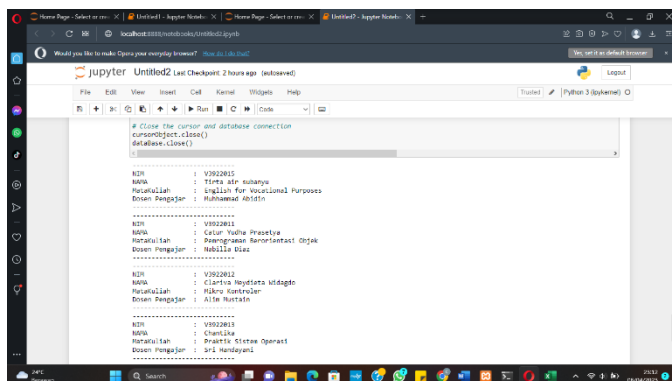
# Create a cursor object
cursorObject = database.cursor()

# Execute the SELECT query
sql = "SELECT mahasiswa.NIM, mahasiswa.Nama, matrikulasi.Nama_Matrikul, dosen.Nama_Dosen FROM mahasiswa JOIN matrikulasi"
cursorObject.execute(sql)

# Fetch all the rows
result = cursorObject.fetchall()

# Print the result
for row in result:
    print("-----")
    print("NIM" + " " + row[0])
    print("Nama" + " " + row[1])
    print("Matrikulasi" + " " + row[2])
    print("Dosen Pengajar" + " " + row[3])
```

Hasil



```
# Close the cursor and database connection
cursorObject.close()
database.close()

-----
NIM : V0802001
Nama : Tirta alr mahyus
Matrikulasi : English for Vocational Purposes
Dosen Pengajar : Muhaimal Abidin

-----
NIM : V0802002
Nama : Galau Yulia Prasetya
Matrikulasi : Penerjemahan Berorientasi Objek
Dosen Pengajar : Nabila Rizki

-----
NIM : V0802003
Nama : Clarissa Haryanta Indagito
Matrikulasi : Mikros Kontroler
Dosen Pengajar : Alvin Nurhadi

-----
NIM : V0802003
Nama : Chenzilisa
Matrikulasi : Praktis Sistem Operasi
Dosen Pengajar : Sri Handayani
```

