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## Laporan Praktikum Sistem Basis Data

### MySQL dan Python

#### Praktikum

##### 1. Menambahkan data pada tabel transaksi



The screenshot shows a Python script in a text editor and a corresponding MySQL table view. The script connects to a MySQL database named 'perbankan' and inserts a new transaction record. The table view shows the resulting data in the 'transaksi' table.

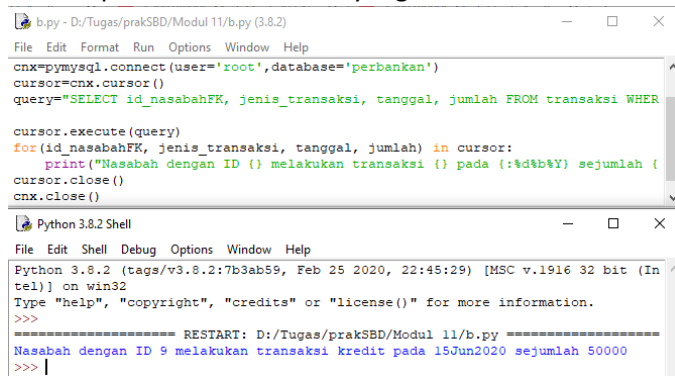
```
a.py - D:/Tugas/praksBD/Modul 11/a.py (3.8.2)
File Edit Format Run Options Window Help
from datetime import date, datetime, timedelta
import pymysql

cnx=pymysql.connect(user='root',database='perbankan')
cursor=cnx.cursor()
tanggal=datetime.now().date()
tambah_transaksi="INSERT INTO transaksi(id_nasabahFK,no_rekeningFK,jenis_transaksi,tanggal,jumlah) VALUES(%s,%s,%s,%s,%s)"
data_transaksi=(9,110,'kredit',tanggal,50000)
cursor.execute(tambah_transaksi,data_transaksi)

cnx.commit()
cursor.close()
cnx.close()
```

no_transaksi	no_rekeningfk	id_nasabahfk	jenis_transaksi	tanggal	jumlah
54	110	9	kredit	2020-06-15 00:00:00	50000
48	115	12	debit	2009-12-11 00:00:00	420000
50	119	16	kredit	2009-12-11 00:00:00	50000

##### 2. Menampilkan data transaksi yang dilakukan hari ini



The screenshot shows a Python script that queries the 'transaksi' table for transactions on the current date. The output is displayed in a Python 3.8.2 Shell window.

```
b.py - D:/Tugas/praksBD/Modul 11/b.py (3.8.2)
File Edit Format Run Options Window Help
cnx=pymysql.connect(user='root',database='perbankan')
cursor=cnx.cursor()
query="SELECT id_nasabahFK, jenis_transaksi, tanggal, jumlah FROM transaksi WHERE tanggal=DATE(NOW())"
cursor.execute(query)
for(id_nasabahFK, jenis_transaksi, tanggal, jumlah) in cursor:
    print("Nasabah dengan ID {} melakukan transaksi {} pada {}<td>{}</td> sejumlah {}".format(id_nasabahFK, jenis_transaksi, tanggal, jumlah))
cursor.close()
cnx.close()
```

```
Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/Tugas/praksBD/Modul 11/b.py =====
Nasabah dengan ID 9 melakukan transaksi kredit pada 15Jun2020 sejumlah 50000
>>>
```

#### Tugas

##### 1. Nomor 1

###### a. Insert

```
c.py - D:/Tugas/prakSBD/Modul 11/c.py (3.8.2)
File Edit Format Run Options Window Help
from datetime import date,datetime,timedelta
import pymysql

cnx=pymysql.connect(user='root',database='perbankan')
cursor=cnx.cursor()
tanggal=datetime.now().date()
tambah_transaksi= "INSERT INTO transaksi (id_nasabahFK,no_rekeningFK,jenis_trans
data_transaksi=(51,121,'debit',tanggal,1000000)
cursor.execute(tambah_transaksi,data_transaksi)
cnx.commit()
cursor.close()
cnx.close()
```

```
Administrator: Command Prompt - mysql -u root -p

48 | 115 | 12 | debit | 2009-12-11 00:00:00 | 420000
49 | 117 | 14 | debit | 2009-12-11 00:00:00 | 60000
50 | 119 | 16 | kredit | 2009-12-11 00:00:00 | 50000
54 | 110 | 9 | kredit | 2020-06-15 00:00:00 | 50000
57 | 121 | 51 | debit | 2020-06-15 00:00:00 | 1000000
-----
52 rows in set (0.000 sec)

MariaDB [perbankan]> _
```

## b. Update

```
d.py - D:/Tugas/prakSBD/Modul 11/d.py (3.8.2)
File Edit Format Run Options Window Help
from datetime import date,datetime,timedelta
import pymysql

cnx=pymysql.connect(user='root',database='perbankan')
cursor=cnx.cursor()
query= "UPDATE transaksi SET jumlah=250000 where no_transaksi=50"
cursor.execute(query)
cnx.commit()
cursor.close()
cnx.close()
```

```
Ln: 8 Col: 0

49 | 117 | 14 | debit | 2009-12-11 00:00:00 | 60000
50 | 119 | 16 | kredit | 2009-12-11 00:00:00 | 250000
54 | 110 | 9 | kredit | 2020-06-15 00:00:00 | 50000
57 | 121 | 51 | debit | 2020-06-15 00:00:00 | 1000000
-----
```

## c. Delete

```
e.py - D:/Tugas/prakSBD/Modul 11/e.py (3.8.2)
File Edit Format Run Options Window Help
from datetime import date,datetime,timedelta
import pymysql

cnx=pymysql.connect(user='root',database='perbankan')
cursor=cnx.cursor()
query= "DELETE FROM transaksi where no_transaksi=50"
cursor.execute(query)
cnx.commit()
cursor.close()
cnx.close()
```

```
Ln: 6 Col: 29

48 | 115 | 12 | debit | 2009-12-11 00:00:00 | 420000
49 | 117 | 14 | debit | 2009-12-11 00:00:00 | 60000
54 | 110 | 9 | kredit | 2020-06-15 00:00:00 | 50000
57 | 121 | 51 | debit | 2020-06-15 00:00:00 | 1000000
-----
```

2. Membuat kode python untuk mendapatkan :
  - a. Data nasabah

```
f.py - D:/Tugas/prakSBD/Modul 11/f.py (3.8.2)
File Edit Format Run Options Window Help
from datetime import date,datetime,timedelta
import pymysql

cnx=pymysql.connect(user='root',database='perbankan')
cursor=cnx.cursor()
query= "SELECT*FROM nasabah"
cursor.execute(query)
output = cursor.fetchall()
for x in output:
    print(x)
cursor.close()
cnx.close()

Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/Tugas/prakSBD/Modul 11/f.py =====
>>>
===== RESTART: D:/Tugas/prakSBD/Modul 11/f.py =====
>>>
(1, 'Sutopo', 'Jl. Jendral Sudirman 12')
(2, 'Maryati', 'Jl. MT. Haryono 31')
(3, 'Superman', 'Jl. Hasanudin 81')
(4, 'Kartika Padmasari', 'Jl. Manggis 15')
(5, 'Budi Eko Prayogo', 'Jl. Kantil 30')
(6, 'Satria Eka Jaya', 'Jl. Slamet Riyadi 45')
(8, 'Sari Murti', 'Jl. Pangdaran 11')
(9, 'Canka Lokananta', 'Jl. Tidar 86')
(10, 'Budi Murtono', 'Jl. Merak 22')
(11, 'Ali Saputra', 'Jl. Anggur 11')
(12, 'Juli Ariawan', 'Jl. Mangga 17')
(13, 'Ahmad Ridwan', 'Jl. Rambutan 21')
(14, 'Candra Kirana', 'Jl. Durian 34')
(15, 'Riski Nurdiansyah', 'Jl. Apel 25')
(16, 'Septian Dwi', 'Jl. Jeruk 6')
(17, 'Zainal Fathoni', 'Jl. Manggis 44')
(18, 'Anggit Pratiwi', 'Jl. Matoa 13')
(19, 'Arsida Ulfa', 'Jl. Sawo 43')
(20, 'Fitri Dearlia', 'Jl. Apel 43')
(32, 'Suhartomo', 'Wonogiri')
```

b. Data nasabah yang melakukan transaksi antara bulan Oktober sampai Desember

```
g.py - D:/Tugas/prakSBD/Modul 11/g.py (3.8.2)
File Edit Format Run Options Window Help
from datetime import date,datetime,timedelta
import pymysql

cnx=pymysql.connect(user='root',database='perbankan')
cursor=cnx.cursor()
query= """SELECT*FROM nasabah WHERE nasabah.id_nasabah IN
(SELECT transaksi.id_nasabahFK FROM transaksi WHERE tanggal
BETWEEN '2009-10-1' AND '2009-12-30')"""

cursor.execute(query)
output = cursor.fetchall()
for x in output:
    print(x)
cursor.close()
cnx.close()

Python 3.8.2 Shell
File Edit Shell Debug Options Window Help
Python 3.8.2 (tags/v3.8.2:7b3ab59, Feb 25 2020, 22:45:29) [MSC v.1916 32 bit (Intel)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: D:/Tugas/prakSBD/Modul 11/g.py =====
>>>
(1, 'Sutopo', 'Jl. Jendral Sudirman 12')
(2, 'Maryati', 'Jl. MT. Haryono 31')
(3, 'Superman', 'Jl. Hasanudin 81')
(4, 'Kartika Padmasari', 'Jl. Manggis 15')
(5, 'Budi Eko Prayogo', 'Jl. Kantil 30')
(9, 'Canka Lokananta', 'Jl. Tidar 86')
(10, 'Budi Murtono', 'Jl. Merak 22')
(11, 'Ali Saputra', 'Jl. Anggur 11')
(12, 'Juli Ariawan', 'Jl. Mangga 17')
(13, 'Ahmad Ridwan', 'Jl. Rambutan 21')
(14, 'Candra Kirana', 'Jl. Durian 34')
(15, 'Riski Nurdiansyah', 'Jl. Apel 25')
(16, 'Septian Dwi', 'Jl. Jeruk 6')
(17, 'Zainal Fathoni', 'Jl. Manggis 44')
(18, 'Anggit Pratiwi', 'Jl. Matoa 13')
(19, 'Arsida Ulfa', 'Jl. Sawo 43')
(20, 'Fitri Dearlia', 'Jl. Apel 43')
```