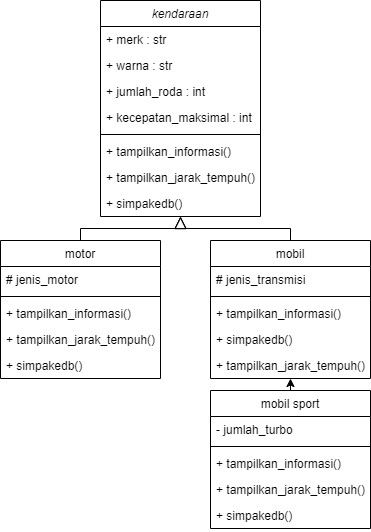
**NAMA : Muhammad Zaki Wicaksono  
NPM : 5220411248**

1. **Class Diagram**



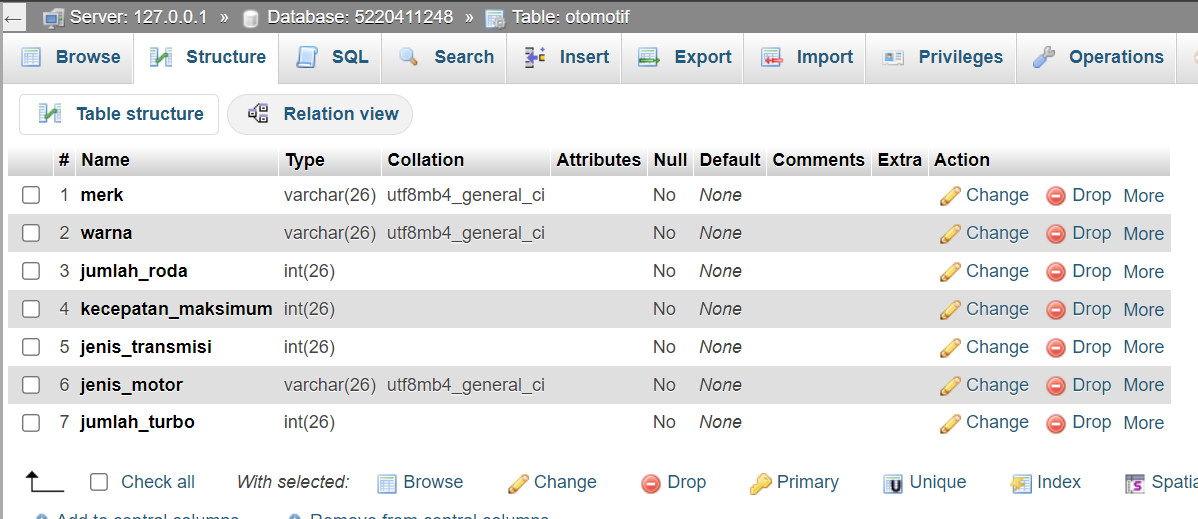
1. **Kode program**

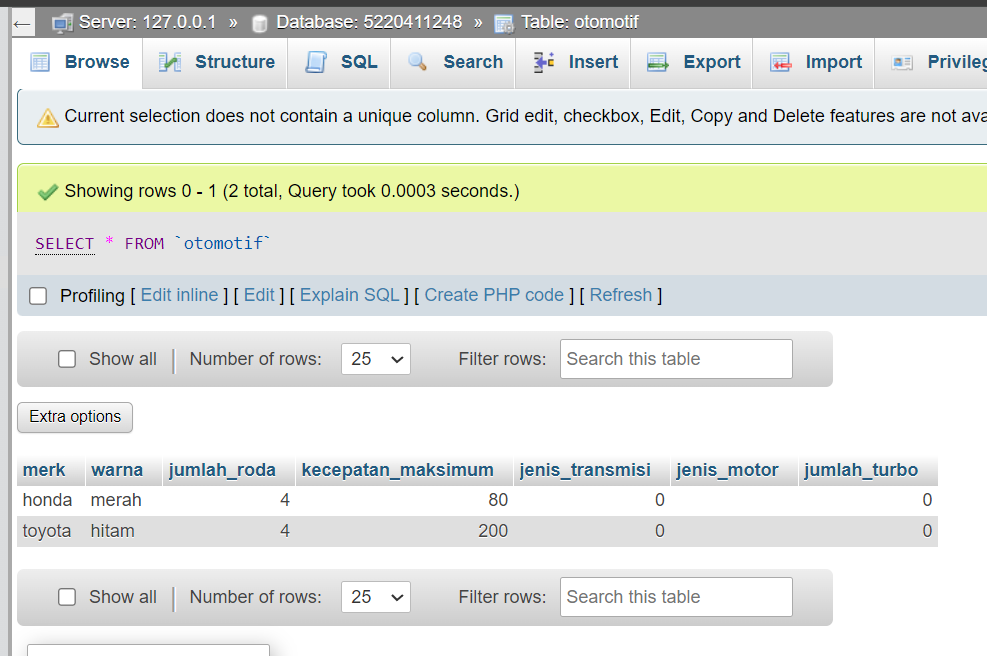
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| --- |
| import os  import mysql.connector  class Kendaraan:  def \_\_init\_\_(self, merk, warna, jumlah\_roda, kecepatan\_maksimum):  self.merk = merk  self.warna = warna  self.jumlah\_roda = jumlah\_roda  self.kecepatan\_maksimum = kecepatan\_maksimum  def tampilkan\_informasi(self):  print("="\*20)  print(f"Merk: {self.merk}")  print(f"Warna: {self.warna}")  print(f"Jumlah roda: {self.jumlah\_roda}")  print(f"Kecepatan maksimum: {self.kecepatan\_maksimum}")  def tampilkan\_jarak\_tempuh(self, waktu):  jarak = self.kecepatan\_maksimum \* waktu  print(f"Jarak: {jarak} KM")  def simpankedb(self):  connection = mysql.connector.connect(  host="localhost",  user="root",  password="",  database="5220411248"  )  cursor = connection.cursor()  sql = "INSERT INTO otomotif (merk, warna, jumlah\_roda, kecepatan\_maksimum) VALUES (%s, %s, %s, %s)"  values = (self.merk, self.warna, self.jumlah\_roda, self.kecepatan\_maksimum)  cursor.execute(sql, values)  connection.commit()  cursor.close()  connection.close()  class Mobil(Kendaraan):  def \_\_init\_\_(self, merk, warna, jumlah\_roda, kecepatan\_maksimum, jenis\_transmisi):  super().\_\_init\_\_(merk, warna, jumlah\_roda, kecepatan\_maksimum)  self.\_jenis\_transmisi = jenis\_transmisi  def tampilkan\_informasi(self):  super().tampilkan\_informasi()  print(f"Jenis transmisi: {self.\_jenis\_transmisi}")  def simpankedb(self):  super().simpankedb()  connection = mysql.connector.connect(  host="localhost",  user="root",  password="",  database="5220411248"  )  cursor = connection.cursor()  sql = "UPDATE otomotif SET jenis\_transmisi = %s WHERE merk = %s"  values = (self.\_jenis\_transmisi, self.merk)  cursor.execute(sql, values)  connection.commit()  cursor.close()  connection.close()  class Motor(Kendaraan):  def \_\_init\_\_(self, merk, warna, jumlah\_roda, kecepatan\_maksimum, jenis\_motor):  super().\_\_init\_\_(merk, warna, jumlah\_roda, kecepatan\_maksimum)  self.\_jenis\_motor = jenis\_motor  def tampilkan\_informasi(self):  super().tampilkan\_informasi()  print(f"Jenis motor: {self.\_jenis\_motor}")  def simpankedb(self):  super().simpankedb()  connection = mysql.connector.connect(  host="localhost",  user="root",  password="",  database="5220411248"  )  cursor = connection.cursor()  sql = "UPDATE otomotif SET jenis\_motor = %s WHERE merk = %s"  values = (self.\_jenis\_motor, self.merk)  cursor.execute(sql, values)  connection.commit()  cursor.close()  connection.close()  class MobilSport(Mobil):  def \_\_init\_\_(self, merk, warna, jumlah\_roda, kecepatan\_maksimum, jenis\_transmisi, jumlah\_turbo):  super().\_\_init\_\_(merk, warna, jumlah\_roda, kecepatan\_maksimum, jenis\_transmisi)  self.\_\_jumlah\_turbo = jumlah\_turbo  def tampilkan\_informasi(self):  super().tampilkan\_informasi()  print(f"Jumlah turbo: {self.\_\_jumlah\_turbo} tabung")  def simpankedb(self):  super().simpankedb()  connection = mysql.connector.connect(  host="localhost",  user="root",  password="",  database="5220411248"  )  cursor = connection.cursor()  sql = "UPDATE otomotif SET jumlah\_turbo = %s WHERE merk = %s"  values = (self.\_\_jumlah\_turbo, self.merk)  cursor.execute(sql, values)  connection.commit()  cursor.close()  connection.close()  #struktur awal (untuk mencoba testing saja, sebelum implementasi ke menu & perulangan)  #ms = MobilSport("honda", "hitam", 4, 100, "metik", 1)  #ms.tampilkan\_informasi()  #ms.tampilkan\_jarak\_tempuh(2)  while True:  print('='\*20)  print("informasi kendaraan")  print("1. mobil")  print("2. motor")  print("3. mobil sport")  print("4. exit")  print('='\*20)  pilihan = input("inputan user: ")  if pilihan == '1':  merk = input("merk: ")  warna = input("warna: ")  jumlah\_roda = int(input("jumlah roda: "))  kecepatan\_maksimum = int(input("kecepatan maksimum (km/jam): "))  jenis\_transmisi = input("jenis transmisi: ")  mobil = Mobil(merk, warna, jumlah\_roda, kecepatan\_maksimum, jenis\_transmisi)  waktu = int(input("masukkan waktu (jam) untuk menghitung jarak tempuh: "))  os.system('cls')  mobil.tampilkan\_informasi()  mobil.tampilkan\_jarak\_tempuh(waktu)  mobil.simpankedb()  elif pilihan == '2':  merk = input("merk: ")  warna = input("warna: ")  jumlah\_roda = int(input("jumlah roda: "))  kecepatan\_maksimum = int(input("kecepatan maksimum (km/jam): "))  jenis\_motor = input("jenis motor: ")  motor = Motor(merk, warna, jumlah\_roda, kecepatan\_maksimum, jenis\_motor)  waktu = int(input("masukkan waktu (jam) untuk menghitung jarak tempuh: "))  os.system('cls')  motor.tampilkan\_informasi()  motor.tampilkan\_jarak\_tempuh(waktu)  motor.simpankedb()  elif pilihan == '3':  merk = input("merk: ")  warna = input("warna: ")  jumlah\_roda = int(input("jumlah roda: "))  kecepatan\_maksimum = int(input("kecepatan maksimum (km/jam): "))  jenis\_transmisi = input("jenis transmisi: ")  jumlah\_turbo = int(input("jumlah turbo: "))  mobil\_sport = MobilSport(merk, warna, jumlah\_roda, kecepatan\_maksimum, jenis\_transmisi, jumlah\_turbo)  waktu = int(input("masukkan waktu (jam) untuk menghitung jarak tempuh: "))  os.system('cls')  mobil\_sport.tampilkan\_informasi()  mobil\_sport.tampilkan\_jarak\_tempuh(waktu)  mobil\_sport.simpankedb()  elif pilihan == '4':  os.system('cls')  print("program diakhiri")  break  else:  os.system('cls')  print("pilihan tidak valid") |

1. **SQL (database)**

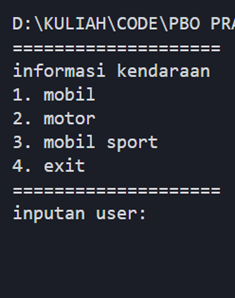
|  |
| --- |
| -- phpMyAdmin SQL Dump  -- version 5.2.1  -- https://www.phpmyadmin.net/  --  -- Host: 127.0.0.1  -- Generation Time: Jan 14, 2024 at 07:51 AM  -- Server version: 10.4.32-MariaDB  -- PHP Version: 8.2.12  SET SQL\_MODE = "NO\_AUTO\_VALUE\_ON\_ZERO";  START TRANSACTION;  SET time\_zone = "+00:00";  /\*!40101 SET @OLD\_CHARACTER\_SET\_CLIENT=@@CHARACTER\_SET\_CLIENT \*/;  /\*!40101 SET @OLD\_CHARACTER\_SET\_RESULTS=@@CHARACTER\_SET\_RESULTS \*/;  /\*!40101 SET @OLD\_COLLATION\_CONNECTION=@@COLLATION\_CONNECTION \*/;  /\*!40101 SET NAMES utf8mb4 \*/;  --  -- Database: `5220411248`  --  -- --------------------------------------------------------  --  -- Table structure for table `otomotif`  --  CREATE TABLE `otomotif` (  `merk` varchar(26) NOT NULL,  `warna` varchar(26) NOT NULL,  `jumlah\_roda` int(26) NOT NULL,  `kecepatan\_maksimum` int(26) NOT NULL,  `jenis\_transmisi` int(26) NOT NULL,  `jenis\_motor` varchar(26) NOT NULL,  `jumlah\_turbo` int(26) NOT NULL  ) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4\_general\_ci;  --  -- Dumping data for table `otomotif`  --  INSERT INTO `otomotif` (`merk`, `warna`, `jumlah\_roda`, `kecepatan\_maksimum`, `jenis\_transmisi`, `jenis\_motor`, `jumlah\_turbo`) VALUES  ('honda', 'merah', 4, 80, 0, '', 0),  ('toyota', 'hitam', 4, 200, 0, '', 0);  COMMIT;  /\*!40101 SET CHARACTER\_SET\_CLIENT=@OLD\_CHARACTER\_SET\_CLIENT \*/;  /\*!40101 SET CHARACTER\_SET\_RESULTS=@OLD\_CHARACTER\_SET\_RESULTS \*/;  /\*!40101 SET COLLATION\_CONNECTION=@OLD\_COLLATION\_CONNECTION \*/; |

1. **Screenshot database**

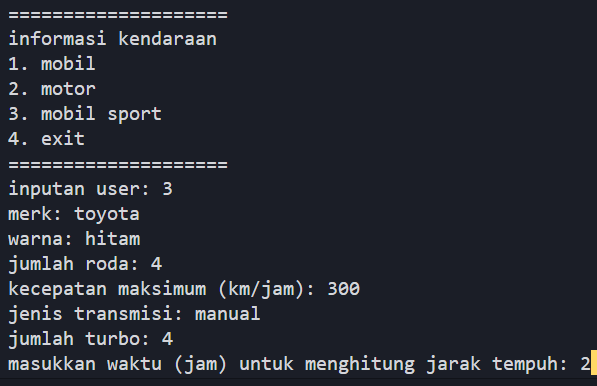
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1. **Screenshot hasil running program**
   1. Screenshot menu



* 1. Screenshot memasukan value



* 1. Screenshot hasil

