



Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam
(An Autonomous Institution, Affiliated to Anna University, Chennai)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Date: 11-04-2023

Course Code	UCS2411	Course Name	Database Lab					
Course Type	Lab	Course Category	Professional Core (PC)	L	T	P	E	C
				0	0	3	0	1.5
Regulation	2021		Academic Year & Batch		2022 - 23 & 2021 - 25			
Degree and Branch			B.E. Computer Science & Engineering					
Semester	IV		K3, CO1	PI: 1.3.1, 1.4.1, 2.4.1 & 13.3.1				
Assignment No.	3		Assigned Date	21-03-2023	Due Date		06-04-2023	
Name of the Faculty			Dr. N. Sujaudeen & Dr. P. Mirunalini					
Title: Advanced DML – using Joins, Sub queries, Set Operations								

Car Manufacturing Database

Consider the following relations for the Car Manufacturing database:

CONTINENTS (Contid, continent)

COUNTRIES (Countryid, countryname, continent)

CAR_MAKERS (Id, maker, fullname, country)

MODEL_DETAILS (Modelid, maker, model)

CAR_NAMES (Id, model, descr)

CAR_DETAILS (Id, mpg, cylinders, edispl, horsepower, weight, accel, year)

- Understand the database semantics through README_CAR.txt file.
- Draw schema diagram for Car Manufacturing database.
- Create relations with appropriate data types and integrity constraints in order to populate values from the *Car.sql* file.

Write the following using JOIN / Sub-query:

(Write two equivalent SQL statements for at least any one of following query)

1. Display the models that was not manufactured by any of the car makers.
2. For all the continents list the number of car makers if there were a car manufacturing company.
3. Display the pair of cars (ID) that has same mileage, horsepower and acceleration.
The pairs should not be repeated in the result.
4. Display the number of cars produced by each car manufacturing company within each model. Sort the result by the company name.
5. Display the model, name of car, mpg and weight of car(s) with maximum mileage among the heavy weight (bulky) cars. The car with weight more than the average weight of all cars is known as heavy weight (bulky) cars.
6. Display the details (model,car_name,mileage,horsepower,acceleration,weight) of car(s) having mileage, horsepower, acceleration more than the average of mpg, horsepower, accel of all cars and its weight should be lesser than the average weight of all cars.
7. List the year, car maker that manufactured maximum number of cars.
8. Display the maker name, model name, car name, mileage and year of the car with the maximum mileage for each model having more than one car. Sort the result by the car maker.

Write the following using Set Operations:

9. Rewrite the query 1.
10. List the car names (description) and its details that was manufactured on 1976 and 1982.

What you have to submit:

1. Schema Diagram with constraints
2. Demo script file