**Assignment 1**

The purpose of this database is to model data for a breakdown company. Members must be registered with the company and each member can have multiple vehicles.

**Task 1:**

Create the following tables:

Member

• MemberID(PK), varchar(10)

• MemberFName, varchar(20)

• MemberLName, varchar(20)

• MemberLoc, varchar(20)

Vehicle:

• VehicleReg(PK), varchar(10)

• VehicleMake varchar(10)

• VehicleModel, varchar(10)

• MemberID(FK), varchar(10)

Engineer:

• EngineerID(PK), int

• EngineerFName, varchar(20)

• EngineerLName, varchar(20)

Breakdown:

• BreakdownID(PK), int 10

• VehicleReg(FK), varchar(10)

• EngineerID(FK), int

• BreakdownDATE, date

• BreakdownTIME, time

• BreakdownLoc

Using the Alter command set the foreign keys

**Task 2**

Enter the following data

• Member table – 5 records

• Vehicle table – 8 records

• Engineer table – 3 records

• Breakdown table – 12 records

• Have 2 breakdowns on the same day

• Have 3 breakdowns in the same month

• Have at least 3 vehicles that have broken down more than once

**Task 3**

Perform the following queries

• The names of members who live in a location e.g. For example, London.

• All cars registered with the company e.g. all Nissan cars.

• The number of engineers that work for the company.

• The number of members registered.

• All the breakdown after a particular date

• All the breakdown between 2 dates

• The number of time a particular vehicle has broken down

• The number of vehicles broken down more than once

**Task 4**

Perform the following queries:

• All the vehicles a member owns. For example, Matt

• The number of vehicles each member has – sort the data based on the number of car from highest to lowest.

• All vehicles that have broken down in a particular location along with member details.

• A list of all breakdown along with member and engineer details between two dates.

• A further 3 relational queries of your choice that are meaningful to the company.

**Task 5**

Using W3Schools or any other resource research the following functions – Avg, Max, Min, Sum. Explain with examples how each one is used.

**Task 6**

• If a member has more than one vehicle, then display multi-car policy

• Create a stored procedure which will display number of cars for any member whose first name and last name you are passing as argument while calling the stored procedure!