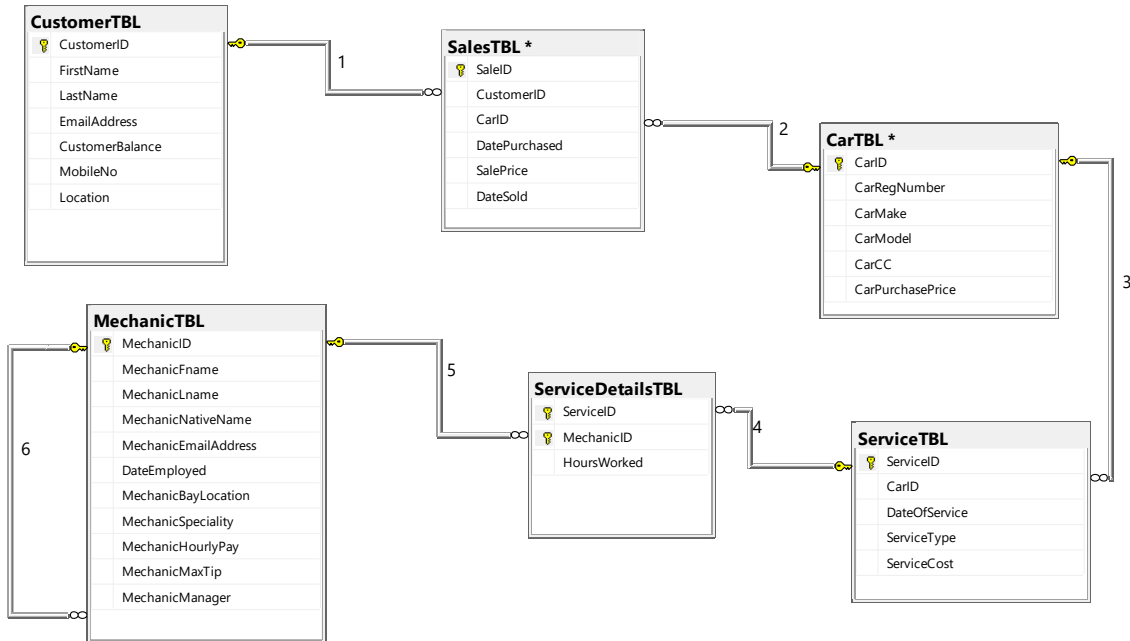# SQL Exam Worth 40% of Total Mark

Cross Car Sales Warehouse

1. A customer buys cars.
2. A car can be re sold to several customers
3. A cars service's is recorded.
4. Cars are serviced by mechanics
5. Mechanics services cars,
6. A Mechanic manages other mechanics.

Exam Instructions
Log onto the cairnssql\kilross server to do this exam. Use the database with your Student ID followed by SQLExam (e.g. S0012345SQLExam) to complete the exam.

Please note that the tables already exist in your database.

Examination continued over page

Please note that 20% of the marks for each question completed will be for the IPO. Create the IPOs in a Excel Spreadsheet and upload the spreadsheet to Moodle

Please add or update the data in the tables so that each stored procedure when executed will not return null data. Please note that 10% of the marks, for each question completed, will be for this test data.

1. Create a stored procedure **(call it xmas_q1)** which will retrieve the total number of hours worked by mechanic 1.

    (5 marks)

2. Create a stored procedure **(call it xmas_q2)** which will retrieve the name of any mechanic who has not been assigned a manager.

    (5 marks)

3. Create a stored procedure **(call it xmas_q3)** which will retrieve the mechanic id, the mechanic name and the mechanic hourly pay of all mechanics who work on a particular car's service. The Car Reg of the car of the car is used to identify the car and your stored procedure must use an external variable to pass in the car reg.

    (10 marks)

4. Create a stored procedure **(call it xmas_q4)** which will retrieve the total value of sales of cars sold this month (**Note** this "sproc" should be dynamic in that it can be run at any time and will not need to be edited).

    (10 marks)

5. Create a stored procedure **(call it xmas_q5)** which will retrieve the ServiceID and the MechanicID in the ServiceDetailsTBL table that contain orphan rows for Mechanics.

    (10 marks)

6. Create a stored procedure **(call it Q6)** which will retrieve the Customer ID, the Customer name and the Customer Balance of any customer whose balance is more that the average Customer Balance.

    (10 marks)

7. Create a stored procedure **(call it Q7)** which will retrieve the Customer ID, the Customers name, and the number of purchases the customer has made for any customer who has more than **X** no of purchases. Please note that the number of sales **X** here will be inputted into the stored procedure using an external variable.

    (10 marks)

Examination continued over page

8. Create a stored procedure **(call it Q8)** which will retrieve the Mechanic ID and the Mechanics names, of mechanics who are managers (***Note*** *this stored procedure should not return duplicate rows)* .

(10 marks)

9. Create a stored procedure **(call it Q9)** which will retrieve the FirstName and LastName and email address of all customers who have an email address for a gmail account **or** the FirstName and LastName and email address of mechanics who have an email address for a gmail account. (**Note** if the mechanic is also a customer (their email address will be the same) your result set should not return duplicate rows).

(15 marks)

10. Create a stored procedure **(call it Q10)** which will retrieve the car make, the car make model and the car purchase price of any car whose purchase price is less than the average purchase price for that car make. (Hint use a co-related sub query to solve this problem).

(15 marks)

End of Examination