**Revision Exercise**

Consider the following tables which are a part of a car rental database:

***Table Name: CAR***

|  |  |  |  |
| --- | --- | --- | --- |
| **RegistrationNum** | **Make** | **Model** | **YearOfManufacture** |
| ABU 2522 | Hyundai | Elantra | 2013 |
| ABA 1978 | Honda | City | 2016 |
| WKC 6256 | Perodua | Kancil | 2017 |
| AEM 7778 | Perodua | Kenari | 2016 |
| BDQ 8787 | Hyundai | Sonata | 2015 |
| WJH 3465 | Hyundai | Sonata | 2014 |

***Table Name: RENTAL***

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **RecID** | **RegistrationNum** | **CustCode** | **MilesDriven** | **DateHired** |
| 100 | ABU 2522 | E100 | 2300 | 2018-02-05 |
| 122 | ABA 1978 | C100 | 1200 | 2018-02-06 |
| 123 | WKC 6256 | K201 | 100 | 2018-02-07 |
| 133 | AEM 7778 | K202 | 550 | 2018-02-08 |
| 145 | BDQ 8787 | S105 | 50 | 2018-02-10 |
| 146 | ABU 2522 | S105 | 900 | 2018-02-12 |
| 177 | WKC 6256 | E100 | 700 | 2018-02-24 |

***Table Name: CUSTOMER***

|  |  |  |
| --- | --- | --- |
| **CustCode** | **CustName** | **Location** |
| E100 | S.J.Salim | Selangor |
| C100 | Harish | Perak |
| K201 | Su Chin | Kuala Lumpur |
| K202 | Mohd Salleh | Selangor |
| S101 | Ramakrishna | Perak |
| S105 | John Brown | Kelantan |

Based on the tables above, write SQL statements for the following queries. No need to use SQL server, type your answer in this document.

1. How many cars of **each** model were manufactured between year 2015-2017?

SELECT Count (RegisterationNum), Make, Model, YearOfManufacture AS CarsManufacturedFrom2015-2017

FROM CAR

WHERE YearOfManufacture BETWEEN 2015 AND 2017

GROUP BY Model, Make;

**(4 marks)**

1. List the customers who had never rented any cars.

SELECT CustCode, CustName AS CustomersNoRentYet

FROM CUSTOMER JOIN Rental ON Customer.CustCode = Rental.CustCode

EXCEPT (SELECT CustCode FROM RENTAL)

WHERE CustCode NOT NULL;

**(4 marks)**

1. List the car which had rented more than 2 times.

SELECT Count (RegistrationNum), CAR.Make, CAR.Model, (CUSTOMER.CustName) AS RentedBy

FROM RENTAL

WHERE RegistrationNum > 2

**(4 marks)**

1. Write the DDL statement to create the RENTAL table shown above. Include appropriate constraints in the table.

CREATE TABLE RENTAL (

RecID int PRIMARY KEY,

RegistrationNum varchar (10) NOT NULL,

CustCode varchar (10) NOT NULL,

MilesDriven int,

DateHired date,

FOREIGN KEY (RegistrationNum) REFERENCES CAR (RegistrationNum),

FOREIGN KEY (CustCode) REFERENCES CUSTOMER (CustCode)

);

**(4 marks)**

1. List the who rented a car which ‘make and model’ is ‘Honda City’, order in descending order by customer name.

SELECT CUSTOMER.CustCode, CUSTOMER.CustName, CUSTOMER.Location

FROM CUSTOMER

JOIN RENTAL ON CUSTOMER.CustCode = RENTAL.CustCode

JOIN CAR ON RENTAL.RegistrationNum = CAR.RegistrationNum

WHERE CAR.Make = 'Honda' AND CAR.Model = 'City'

ORDER BY CUSTOMER.CustName DESC;

**(4 marks)**

**(TOTAL: 20 MARKS)**