

ITC607 Data Management

Semester 1, 2019



Faculty of Health, Humanities and Computing

Assignment 2

Total marks: 30

Course weighting: 30%

Due: 19/6/2019, 1pm

Learning outcome: 1

1. Analyse information requirements and create data models.

Instructions:

1. This is an individual assignment.
2. Submission of this assignment will be electronic copies. Upload the electronic copy of this assignment to the course Blackboard site before the submission date and time.
3. The assignment after the due date and time will be ineligible to resubmit.
4. You must attach the cover page (provided at the end of this document) at the front of your submission, and the marking schedule at the end of your report.
5. Please note any plagiarism will be dealt with in accordance with the Institute's policies. This may result in severely curtailed (or zero) marks. You will learn nothing (and score nothing) by copying others' work

What needs to be done:

Using the brief supplied in the following section you are to design and produce documentation for a database as follows:

- 1. Requirements:** List and work out the requirements for the database. This will require some imagination and assumption as unfortunately the client brief does not seem to be 100 % complete, though it is reasonably thorough and clear.
- 2. Logical Design:** Design the database and produce the Entity Relationship Diagram (ERD).
- 3. SQL:** Create the Database using SQL server. You must take screen shot of each step and explain your code.

The Brief:

A database is to be designed for a rental car company called **Cheap Automobile Rentals (CAR)**. The information required includes a description of cars, subcontractors (i.e. garages), company expenditures, company revenues and customers. Cars are to be described by such data as: make, model, year of production, engine size, fuel type, number of passengers, registration number, purchase price, purchase date, daily rent price and insurance details.

It is the company policy not to keep any car for a period exceeding one year. All major repairs and maintenance are done by subcontractors (i.e. franchised garages), with whom CAR has long-term agreements. Therefore, the data about garages includes garage names, addresses, range of services and the like. Some garages require payments immediately after a repair has been made, while CAR has made arrangements for credit facilities with others.

Company expenditures are to be registered for all outgoings connected with purchases, repairs, maintenance, insurance etc. Similarly, the cash inflow coming from car hire, car sales and insurance claims - must be kept on file. CAR maintains a reasonably stable client base. For this privileged category of customers, special credit card facilities are provided. These customers may make bookings in advance for a particular car. These reservations can be made for any period of time up to one month. Casual customers must pay a deposit for an estimated time of rental, unless they wish to pay by credit card. All major credit cards are accepted. Personal details (such as name, address, telephone number, driving licence, number) about each customer are kept in the database.

Marking Schedule

| Task | Description | Marks |
|----------------|--------------------------------------|-------|
| Requirements | Listing Requirements. | 10 |
| Logical Design | Full ERD for the database | 10 |
| SQL | SQL creation script for the database | 10 |
| Sum | | 30 |

Marking Criteria per task

| 0% | 20% | 40% | 60% | 80% | 100% |
|------------------|--|---|--|---|--|
| No understanding | Little understanding of the material presented | Basic knowledge of the material presented | Adequate knowledge of the material presented | Good understanding of the knowledge presented | In depth knowledge of the subject material, gone above and beyond requirements |

[Cover Page Sample]

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Please sign the following statement: "I declare that this assignment submission will be my own work and I will not collude with anyone else on the preparation of this Assignment."

Name / Student ID:

Date:

| Task | Mark | Result |
|-------------------|-----------|--------|
| 1. Requirements | 10 | |
| 2. Logical Design | 10 | |
| 3. SQL | 10 | |
| Sum | 30 | |