Database Exercise Marking Criteria.

1. Design a simple database with your group.   (5 marks)
   You use a database from your workplace or any other workplace or you can design your own. Remember it has to be simple and not complicated. Design it properly.

2. What is the purpose of your group's database? (Its purpose, how you expect to use it, and who will use it.)   (5 marks)

3. Finding and organizing the required information. (There are enrolment forms and class list forms for roll calls etc.)   (5 marks)

4. Divide the information into tables. (Choose the major entities or subjects). After finding and organizing information for our class database, there should a be a list of tables. When you design your database, always try to record each fact just once. If you find yourself repeating the same information in more than one place, such as the address for a particular supplier, place that information in a separate table.   (10 marks)

5. Once you have chosen the subject that is represented by a table, columns in that table should store facts only about the subject.   (5 marks)

6. Turning information items into columns. To determine the columns in a table, decide what information you need to track about the subject recorded in the table. Once you have determined the initial set of columns for each table, you can further refine the columns. The following list shows a few tips for determining your columns.   (5 marks)
   a. Don't include calculated data
   b. Store information in its smallest logical parts

7. Specifying primary keys. Each table should include a column or set of columns that uniquely identifies each row stored in the table. This is often a unique identification number, such as an employee ID number or a serial number. In database terminology, this information is called the primary key of the table. Access uses primary key fields to quickly associate data from multiple tables and bring the data together for you. A primary key must always have a value. If a column's value can become unassigned or unknown (a missing value) at some point, it can't be used as a component in a primary key.   (5 marks)

8. Creating the table relationships. Now that you have divided your information into tables, you need a way to bring the information together again in meaningful ways. (5 marks)

9. Refining the design. Once you have the tables, fields, and relationships you need, you should create and populate your tables with sample data and try working with the information: creating queries, adding new records, and so on. Doing this helps highlight potential problems — for example, you might need to add a column that you forgot to insert during your design phase, or you may have a table that you should split into two tables to remove duplication.   (5 marks)

10. Applying the normalization rules. You can apply the data normalization rules (sometimes just called normalization rules) as the next step in your design. You use these rules to see if your tables are structured correctly. The process of applying the rules to your database design is called normalizing the database, or just normalization.   (5 marks)

Make sure that you have done part 1 to 6 by Thursday, 29th of May, 2014. Hand in one TYPED document from each group. Font: 12 Times New Roman, spacing 1.5. The whole exercise should be c completed and handed in on Friday 6th of June, 2014 at 12:00pm. This counts to 20% of your course work.