Cube Systems, a business that manufactures customised PC machines, needs the help of your expertise to design and implement a database system that handles the sales methods of recording business transactions. Cube Systems have identified the need for a complex database system which will contribute to the success of the each order processed and make some tasks relatively easy for the business.

Cube Systems have been very successful with their sales of customised computers and software. This has resulted in the need to store large quantities of data and produce a variety of well structured reports. Knowing the power of Relational Databases to store the large amounts of data and produce reports, they have decided to develop a Relational Database for their customers and sales.

The current system used at Cube Systems is a paper-based system, which requires the employees (call centre) to manually complete forms for every customer order, lookup details from manuals regarding the products and pricing, send details to the warehouse/shop floor for the development team to create the customised order from the hand-written forms and then finally despatch the orders to the customers. As you have noticed, this is an out-dated process, which has several potential problems. Your mission, if you choose to accept it, is to design and implement a complex database system that will meet the assessment objectives:

* **Understand the features of relational databases**
* **Be able to design, create and populate a relational database**
* **Be able to test a relational database**

**REMEMBER:**

* Customers choose the configuration of computer based on multiple choices such as the speed of the processor, size of the RAM, monitor or hard drive and software.
* Certain options do attract discounts and customers have delivery options such as next day, 2 day or 4 day which all have different price points – if the customer spends over a certain price point they will get free delivery.

Cube systems would like a fully functional and automatic Relational Database system which could incorporate:

* ***A customer page*** – where customers can be added, edited and viewed
* ***A customer orders page*** – where customer orders can be viewed
* ***A product page*** – where all the products for sales can be added, edited and viewed
* ***A ordering page*** – where all the orders can be added, edited and viewed
* ***A invoice page*** – where the user selects what the customer requires and prints the invoice
* ***A reporting page*** – where reports such as the analysis of:
  + - Orders of any particular product
    - Profit made on each product
    - Tracking of customer orders and purchases
    - Calculating totals of ordered product over a given period
    - Customers traced based on any other information required