# DT315 – Information Systems – End of Course Assignment

This assignment is worth 25% of your total mark for this course. The submission deadline is **April 24th**.

You may discuss your approach and solution with your classmates, but please bear in mind the college’s policy on plagiarism. You **may not** copy anyone else’s report or database implementation.

## **Disco Jones – The Scenario**

The following scenario described Disco Jones, a small independent record shop.

Jack Jones founded Disco Jones, a small record ship, in 1987. Business soon became very brisk, with an average of 1,000 people visiting the shop each day culminating in 200 actual sales. In spite of changing technology Jack has managed to survive almost 30 years with very few changes to his business model or operating practices.

He keeps about 4,000 records in stock – many of these are single copies of obscure singles and albums, but for more popular records he may stock dozens or even hundreds of copies. Customers spend a lot of time browsing the shelves or asking Jack for particular records. When a sale is made customers are given a receipt with details of the records they have bought. Jim retains a carbon copy of this receipt and enters it into a ledger. The receipt is also used to update the stock record cards. The receipts are then filed in a loose-leaf folder.

A large notice encourages customers who cannot find the records they require to place special orders through ‘Disco Jones’. A form is available for this purpose and customers are required to pay a €2 deposit. This is necessary because Jack found that many customers did not honour their orders and left him with unwanted stock. When the ordered record is received a postcard is sent informing customers that their order is ready for collection. Jack feels that this service earns him a lot of goodwill, but he freely admits that it is a headache. He has to deal with many special orders each week, and the process is so antiquated that none of his employees can adequately take over if Jack goes on holidays.

Jack buys his records from three different wholesalers. He decides on the records and quantities required every Wednesday afternoon while the shop is closed and generally places a purchase order with each supplier.

Deliveries are received once or twice a week from each supplier, accompanied by a delivery note. All goods received are checked for damage and poor quality goods are returned with a covering note.

## **Where you come in**

You have recently accepted a job with a small management consultancy firm. Jack has approached the firm looking to modernise his operation through use of a desktop database management system such as Microsoft Access, as he is hoping to part-retire in the near future and wants to ensure that his shop will continue to operate efficiently and profitably when he is no longer on hand every day.

As your consultancy is short staffed you have lucked out and been put in charge of your first project – and you are determined to show what you are capable of. A senior partner in the firm has assisted you in putting together a rough outline of the project (see overleaf), but it’s up to you to deliver the project from here on out.

## **The rough outline**

With the assistance of a senior partner you have outline the following steps, which you will use to put together a proposal to present to Jack:

1. The first step required here is to model the system as it currently exists. Create database tables for all existing entities – records, suppliers, sales ledger, special order notes, etc. (NOTE: it is assumed that you will provide fully normalised database tables – there is no need to provide workings)
2. Next you need to insert sample data. You certainly don’t need all 4000 records, but you should have enough to demonstrate to Jack the power of the new system
3. You need to provide forms so that Jack and his staff can interact with the system. There should be a form to insert new records, to add staff to the roster, and so on
4. You will need to provide reports for sales receipts, stock summary, etc
5. You will need to include basic instructions on how to use the system
6. Finally, you will need to include some “value add” features, to really sell Jack on the idea of fully implementing this new system. The senior partner has suggested that managing staff wages and rosters through the system would fulfil this need, but you may also consider other ideas

## **Final Submission & Marking Criteria**

You will be marked on your proposal which is to be issued to Jack. This should include:

1. A short report (<1,000 words) explaining to Jack what advantages will come from this new system
2. Sample images of all the new reports the system will generate (customer receipt, special order forms, staff roster, etc)
3. A working sample database which include all tables, reports, forms, etc
4. Short instructions on how to use the database (which forms to use for what, how to create a sales receipt, etc)

You will be marked on the completeness of your solution (does it adequately meet Jack’s business needs?), as well as the quality of your report (will Jack want to use it?). Marks will be deducted for any omissions in terms of the running of the business, while bonus marks will awarded for exceptional answers to the “value add” portion of the assignment.

## **Other CA marks**

This scenario will form the basis for the rest of the continuous assessment on this course. There will be an in-class DFD exam on this system **next week, Monday March 14th, at 5pm.** The ERD assignment will be announced after Easter.