# cput-logo - The Maynards GroupCover Page

**Subject: ITS362S – Information Systems 3**

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# Approaching business when considering Chapter 9: SDLC and DBLC

## Participants:

# Facebook problem and intervention

## Participants: Sean Trainor 218060033

# Excel spreadsheet integration

## Participants: Cameron Michael Mostert 218006098

# The Yellow Pages Problem and Solutions

## Participants:

# Three group customer solution to increase sales

## Participants:

# Handling stock

## Participants:

# Project Priority Plan

## Participants:

# Hardware and Software Setup

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It has been widely recognized that the selection of information system (IS) is a critical part of IS planning. Multiple factors that impact the decision to select an appropriate set of IS projects include project risk, corporate goals, benefits, the availability of scarce IS resources and the interdependencies that exist among candidate IS projects. (Santhanam & Kyparisis, 1995)

With that in concern the decisions made considering this project will be made in concern of the risks we are exposed to and therefore being proactive of any case that might sabotage business operations. The corporate goals will not be ignored, and benefits will be highlighted. Given that budget is also an important aspect of the process, saving is also of priority.

**SDLC**

**Planning:**

Since there is already some hardware that the company has in their possession although it is obsolete technology and given that all processed are done manually with very minimal computation. The plan is to replace the existing minimalistic technology and incorporate modern technology and network infrastructure to facilitate fast and efficient resource and file sharing. The allocated budget is R100 000 and it is in our interest to save where possible and thus will use open source and some proprietary software with licenses.

Some software and hardware will be rented, and some will be purchased. Network/server infrastructure will be rented from [OneProvider](https://oneprovider.com/dedicated-servers/cape-town-south-africa).

Costs will be mentioned respective of location, i.e. Cape Town and Durban.

**Analysis:**

With the existing hardware and hardware, improvising will be done to optimize the business processes. Major problems include fax, manual operations, lack of technology, Facebook presence, yellow and white pages marketing, spreadsheets, to name a few which has all been already highlighted. Other problems worth mentioning is that staff will require training at a certain fee later to be mentioned in this piece of the overall document.

Primary opportunity is the fibre that will be used as an advantage of speedy network which will result in good business operations. As technology business is all about filling gaps, the fact that this business lacks computerized operations is an opportunity for the implementation.

**Implementation:**

**NB:** Implementation is split into two since there are two branches.

### 

### **Cape Town**

**HARDWARE**

Given that procurement is done in Cape Town, it is a wise idea to have the main infrastructure installed in Cape Town. The first step is network configuration that requires hardware, the initial cost is $6628.40 which in rand amounts to R10 8027.34 charged at the quantity of 2, one for Cape Town and other for Durban. This dedicated server/network infrastructure includes hardware of the following specs:

CPU: Xeon E5-2620 2 GHz 6 cores

RAM: 64GB DDR3

STORAGE: 3 \* 1TB HDD SATA

BANDWIDTH: 100Mbps 6TB

All this hardware specification with the server will be connected using the existing fibre which will be used for peer-to-peer connection with the Durban branch. This package also includes a Network Operating System (NOS) Windows 2016 Standard Server. This will be obviously installed in the dedicated server machine. We will then have POS Hardware installed on premises and configure them as clients to our network. Within our network, we will configure a remote server to enable seamless fast sharing of files. This remote server is going to be a hypervisor connecting both our branches within the same network.

We will also buy 4 x Cat6 30M network cables with the assumption that we have 2 cashiers and we keep 2 for backup at R300 from Takealot which equals R1 200.

We will also need a desktop at a fee of R10 000 to administer daily operations in the network, including database.

**SOFTWARE**

Firstly, Windows Server has been mentioned in the hardware level to give context to our configuration so that it makes sense. Proceeding, the POS software will be purchased from [Square POS](https://squareup.com/us/en/point-of-sale/software/pricing) which gives the software for free but charges for hardware at a rate of 2.6% + 10¢ Per tap, dip, or swipe which equals 2.6% + R1.63. This will be ongoing business operations daily.

We will configure Active Directory to administer user accounts for employees and management.

**DBLC AT A GLANCE:**

On our desktop, we will install and configure MySQL server which is open-source, create MySQL database for business decision making. This database will be connected to the POS system, meaning each client will connect to the central database for transaction records.

PHPMyAdmin will be the server-side application of the database software which is also open-source.

### **Durban**

**HARDWARE:**

The hardware implementation of the Durban branch will be same as the one in Cape Town, except the remote server configuration which will be central to both branches for seamless filesharing.

The specs remain the same, including the number of employees needed the special hardware, i.e. POS hardware, in essence:

* CPU: Xeon E5-2620 2 GHz 6 cores
* RAM: 64GB DDR3
* STORAGE: 3 \* 1TB HDD SATA
* BANDWIDTH: 100Mbps 6TB
* 4 x Cat6 30M network cables

**SOFTWARE:**

The above-mentioned approach also applies to the software level of implementation which is:

* Windows Server Standard Edition
* Square POS software

**DBLC AT GLANCE:**

The implementation here is that there will only be clients installed, as there will be no

# Communication between the two branches

## Participants:

# References

Santhanam, R. & Kyparisis, J., 1995. Copmuter & Operations Research. *A multiple criteria decision model for information system project selection,* 22(8), pp. 807-818.