**MCTV Limited** is a small retail company based in Limerick with a turnover of €1 million per annum & staff of five people that is in the business of selling televisions. The company was established by Michael Cooney and his wife Doreen and has been trading for over twenty years as a private limited family run company. Michael & Doreen despite retaining control of the company (Michael 51% shareholding and Doreen 49% shareholding) are now in their 60’s and have little grasp of the benefits of technology (impact of social media, benefits and challenges of cloud based technologies, as examples)

The 5 staff members are comprised of 4 family members and a shop assistant. The 4 family members are Derek, eldest son at 36 years of age who manages the Sales & Marketing function, Roberta at 30 years of age that has recently qualified as an Accountant and aspires to be the Financial Controller for the company having worked for MCTV all her life just like Derek. The other two sons Mark and Liam (twins at 22 years of age) are both in their final year in University of Limerick. Mark is pursuing a BSc in Computer Science while John is pursuing an Electronics degree. The other staff member is John that is employed as a shop assistant on a part time basis two days a week (Tuesdays and Saturdays) as Doreen plays golf on Tuesdays while Michael plays golf on Saturdays. The shop also opens on Sundays as Michael has indicated that the repair service they provide is an integral part of the customer service that they have been known for and as he said ‘Our customers expect us to be able to provide a fast & thorough response when they have any problems with their appliances, even on Sundays’. Michael is an Electronics engineer by profession and has always lived in the local area and prides himself on knowing his customers in the Limerick area.

Michael & Doreen are aware that the company needs to move with the times in this era of competitiveness and technology led rivals that can respond nimbly to changing customer tastes, especially in the electronics sector. They both realise that they can do more with the existing technology to further improve their business. Michael is very cost conscious and has indicated at a recent family meeting that he would be prepared to spend €100,000 to improve the system and added that although senior in years (and experience!) he is not yet keen on retiring. They are currently using MS Excel to record all the information related to the business together with paper based documents and reminder letters to customers of amounts owing that they have created in MS Word as part of the Microsoft office suite of products that they run in a networked environment. Each of the staff members use Gmail as their email client and Roberta creates reminder letters to customers of the amounts owing at the end of the month. Prior to the introduction of MS Office and 5 laptops in January 2015 in a client/server networked environment two years ago, MCTV Limited had a manual paper based system. Michael had indicated that it was key to the business to link a point of sale terminal to the main laptop at the counter and to ensure that the system could take payments by credit cards. This was done and MCTV Limited has reaped **considerable benefits** from doing this.

At a recent family meeting (family meetings are held monthly on the last Sunday of the month) to review the business operations Michael indicated that he was considering spending up to €100,000 on improving the business further. He then asked each of the family members as managers of their respective functions to make a case for how the €100,000 should be spent and that they should be mindful that they informed him of the benefits and challenges. Michael always pursued a strategy of giving each of the family members responsibility for their own area.

**Derek** wearing his Sales & Marketing hat was the first to respond. “Our point of Sale system since we introduced it as part of the Sales & marketing function under my management has been responsible for increasing Sales by close to 20% every year”. Derek mentioned that the functioning need for any business should be driven by customer relationships and the need for a CRM system to further enhance this. He suggested that Microsoft Dynamics would be a worthwhile investment for the €100,000 as they already had Microsoft Office and this CRM package would facilitate strengthening customer relationships.

**Mark** as the IT Manager took the opportunity of indicating that the website that had been created using Word press was basic and needed to be enhanced further as this was the ‘virtual shop window’ for the company and the “marketspace’ was more significant for MCTV Limited for the future than the traditional marketplace”. He suggested that enhancing the website to allow for on line payments in a cloud based environment would be a worthwhile investment for the €100,000.

**Roberta** as the Financial Accountant suggested that as the company had put most of the files on Excel sheets the next move should be to move to an integrated accounts package. She was in favour of Sage Line 50 and advocated that they could ‘seamlessly transfer all of the existing Excel based files to Sage Line 50 while enjoying the benefits of an integrated accounts package’. Roberta supported the investment of €100,000 in Sage Line 50 and further added that ‘in her Report she would also investigate whether they should consider a cloud based version of Sage – Sage Live’.

Finally, **Liam** who spends a lot of his time using social media and collaborative software opined that collaborative software (as facilitated by the cloud) was where the investment of €100,000 should be spent. He declared that there is no point in running each function in an isolated independent manner or as he called them ‘silos of information’. He added “We need to realise the value of the information that we have not just on our customers or our suppliers or our stock or other parts of the business and act collaboratively together to share that information and add value to Mum & Dad’s business so that we can grow the business for the future. Collaborative software is where we need to spend the €100,000”

Michael listened carefully to each of the family members. He turned to Doreen and asked for her view.

Doreen set each of the 4 family members the following task.

Each of you needs to produce a Report for Michael & I that will contain the following elements

Individual Report elements

1. Advantages and challenges of moving MCTV Limited to the cloud
2. The costs and benefits of your solution
3. 3 other alternative packages that you have investigated in your area that are direct competitors (e.g. for Derek, in the CRM area Salesforce is a competitor to Microsoft Dynamics) and why we should select your recommended software ahead of the other packages that you investigated
4. Training will be important so each individual will need to be trained on the chosen software. Neither of the team members are very technology literate. Therefore, each of you should write an introductory Guide on how to use your chosen software. For example, Roberta would create a user guide on how to use Sage Line 50 in either of the following areas (1) Sales (2) Marketing, (3) Purchasing, and (4) Stock Management. Michael & I are aware that Sage comes with a Demo company. You can use screen shots from the Demo company in your User Guide
5. Finally, you need to make the case for why we should choose your project ahead of your other family members.

From the Excel based records the following Master Files have been obtained as a starting point for everyone - Customers, Suppliers, and Stock Items (See Excel File with 3 tabs)

So as a group of 4 people, you will play the role of each individual in the company MCTV Ltd. Your lecturer will decide who plays each role.

**Your tasks as a team are as follows:**

**Project worth:** [70%]

**Handout Date:** Week 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Tasks** | **Due Date** | **Responsibility** | **Mark** |
| Microsoft Database for company | **Week 9** | Entire Group | **20%** |
| UML (Use Case Diagrams) | **Week 9** | Entire Group | **5%** |
| GitHub for File Management | **Week 14** |  | **5%** |
| Trello for Mapping tasks (Gantt Chart) | **Week 14** | Entire Group | **5% (Please note – There is an additional 10% for attendance to your Lab class)** |
| WordPress website on Cloud 9 Server | **Week 14** | Entire Group | **10%** |
| Report (Mentioned above) with User Guide | **Week 13** | Individual | **15%** |
| Presentation | **Week 13+14** | Entire Group | **10%** |

**Please note: One database per group, one UML chart per group and so on. The only part that is individual is the Report and User Guide.**

* So as a group, you will hand up the Database and UML charts in Week 9 and the GitHub, Gantt chart and Web Site in Week 14 and the presentation in Week 13 or 14.
* Individually you will hand up your report and User Guide in Week 13

**Requirements for each task**

**Microsoft Database** – You are required to create a database for the company using the data provided in the Excel Workbook but also additional data that you think might be useful for the company. The additional data will be additional fields that you think are relevant and some additional records (e.g. 6 more records in each table)

The database must contain the following:

* At least 4+ tables, 2 queries/SQL statements, 4+Reports and forms.
* You must have a navigational database that’s easy to get around.
* Suggestion form so that staff members can leave suggestions on how to improve the business

**Branding:** Please note it’s important to come up with a colour scheme for your company. Ideally the three colour rule will apply. These colours can be used throughout your project.

**UML (Use Case Diagrams)**

* You are required to create a Use Case Diagram for your database demonstrating how data flows. One Chart is all that is required along with the conditions.

**GitHub**

* GitHub is a document version control system that is used to track changes in your documentation. This will be used throughout your project to share files, to collaborate with your group members and to finally show, who has done what. A report will be generated from GitHub to demonstrate the document changes throughout the course of your project.

**Trello**

* This is a Project Management tool that will be used each week in your lab class to document the following questions:
  + What have you done?
  + What are your goals?
  + Problems/Challenges?
  + Screenshots of what you have done in your Trello class

Your first task in week 2 will be to document all your tasks and all your individual tasks. The final result will be a Gantt chart.

**WordPress**

You will be required to create a Website on WordPress for your Company. The web site should contain as a minimum the following:

* Home Page
* About Us Page
* Products Page
* Contact Us Page

The website is required to be hosted and loaded on Cloud 9 server.

**Report**

As mentioned above, you are required to create a report on your chosen software (See earlier Section Individual Report elements a) to e). Each person in the group is required to complete this element. The report should be between 1500 and 2000 words.

With the User guide, it should contain how to get started with the software and to demonstrate how to do one task in the software. The user guide should be about 4-5 pages long.

**Presentation**

This is a group presentation that lasts 10 minutes. Each individual should present. The presentation should demonstrate the following:

* Introduction to your company
* An outline of the tasks – Who did what i.e. Gantt Chart
* Overview of Database and UML Charts
* What software each individual has decided to investigate (Include screenshot of each user guide). Your Group will have 4 different User Guides as each member has created their guide for the software related to their role in MCTV
* Branding – Colour Scheme
* Conclusion – Future Development for the Company