**Chapter I**

**Background of the Study**

* 1. **Project Context**

Technology has made our lives easier today, from the smallest things to Space, Deep Learning and even Artificial Intelligence (Machine Intelligence), from Automated Water Sprinklers to Automated Cars that mostly don’t need you to steer to drive you to your destination. Technology also helps in quality education and effective learning in schools.

In today’s modern life, modern technologies, invented by IT courses and tons of computer programmers, have something to do with human living. One of its most popular inventions is the different systems that are now used in everyday life. School Canteen’s Point-of-Sale The system deals with the evaluation of income and organizing sales records. This program was initiated to secure the daily income of the school canteen and to see if the income from tax is enough since the school canteen’s daily revenue review is very important to monitor.

A sale is an activity involved in the selling of products or services in return for money or other compensation. It is an act of completion of a commercial activity, while inventory A list of what you have in company accounts. "Inventory" usually refers to the value of stocks, as distinct from fixed assets. In comparison to its actual cost, the advanced sales system provides a more reliable record of the sales company. In addition, the data needed by the company to decide matters in relation to inventory can be easily generated.

However, using a manual recording system or listing sold-out menus is now time-consuming and confusing. Schools must adapt to modern technologies by now. This will be a great thing for the staff or cashiers because they will have no hard time calculating how many menus were sold. No more headaches and problems will be remembered.

By generating this idea, the researcher has an opportunity to conduct a study regarding this topic. The researcher will propose a system that they think, according to the preview study, will be very helpful, especially to the school canteen’s staff and administrator, because the school canteen is a small business. Like any business, it requires good management practices to be efficient and successful. The system can be a big help for them to reduce their stress levels if they get benefits or not. The researchers will go deeper and finalize their plans before introducing their output system.

* 1. **Purpose and Description**

The purpose of this project is to develop an automated system to replace the current manual system. It develops the system to be user-friendly, very accurate, and effective for Mater Dei College. This project is focused on being fully automated where the current manual paper-based system will be improved big time. This project will help solve the manual-based system problems. It will make the school’s canteen easy to compute and manage while keeping it confidential. This system is believed to reduce time consumption and improve the accuracy of computing. This will be a great thing for the staff or cashiers because they will have no hard time thinking about how many menus were sold. Through this, it will record the daily income of Mater Dei College School Canteen and determine if the income from tax is enough since the school canteen’s daily revenue review is very important to monitor.

**Statement of the Problem**

The Mater Dei College (MDC) School Canteen is currently using the manual base system. With manual systems, the level of service is dependent on individuals, and this puts a requirement on management to run training continuously for staff to keep them motivated and to ensure they are following the correct procedures. It takes more effort and physical space to keep track of paper documents, to find information, and to keep details secure. When mistakes are made or changes or corrections are needed, often a manual transaction must be completely redone rather than just updated. With manual or partially automated systems, information often has to be written down and copied or entered more than once. Systematization can reduce the amount of duplication of data entry.

The problem faced by the MDC canteen is that they do not have any systematic system to record and keep their inventory data. It is difficult for the admin to record the inventory data quickly and safely because they only keep it in the logbook and it is not properly organized. Without a computerized inventory system, it is a big problem since they are using a manual process using the pen and paper method of recording their sales as well as the debt and credit of their clients, which is very prone to errors and very troublesome. For instance, if the teacher asks for a receipt and credit record, it would be difficult to confirm the accuracy when it is manually recorded due to unorganized listings, perhaps because they have been using multiple logbooks to make a list of their debts.

**Objectives of the Study**

**General Objective:**

This project, Point of Sale System and Inventory, aims to provide an easy user interface that will help cashiers, administrators, and students for faster, efficient, and effective management of the canteen’s inventory.

* Inventories and sales can be reconciled.
* Credit can be systematically monitored through the debt-aging process.
* The system can be accessed from the different computer units within the organization as long as they are connected. Furthermore, the canteen custodian can provide appropriate documents such as receipts and records to the customers.

**Specific Objective:**

* To replace the current, existing manual recording system with a fully computerized and automated web-based recording system.
* To develop a system that uses less paper.
* To make the application easy to use so that even a non-technical user will use it very well.
* To reduce time, energy, and effort in writing.
* To monitor daily and monthly store sales.
* To be able to process transactions suited for MDC Canteen POS with Inventory and Customer Management System.
* To manage customer purchases, print an invoice (Serial number base) where you can create, display, edit/update, and delete an item.

**Significance of the Study**

The study is significant to the business because it will provide an easy-to-use and easy-access system. Thus, transactions will be more reliable and faster, so they will not have to hire another employee to do the job.

The MDC Canteen POS with Inventory and Customer Management System is intended to provide an effective tool in sales. This will be beneficial to the following entities:

**MDC Canteen**

With businesses like Mater Dei Canteen, time is of the essence, so with the help of a computerized sales system, the business can use their time in a more productive way. They can also reduce their expenses, specifically in salaries, by hiring only a limited number of people. They can respond quickly to the queries of a customer, and they will not have to perform any calculations anymore because the system will do it for them and allow them to get accurate and timely information.

**Manager**

After the implementation of the system, the manager could easily view the sales of the product every day.

**Cashier**

This simplifies their work in managing the stocks and sales. The cashier will ease his work because the system will automatically generate reports.

**Researchers**

This research helps the enhancement of the researcher’s ability, knowledge, and skills in software development.

**Future Researchers**

This research will serve as reference for the future researcher that choose point-of-sale with inventory and customer management system as their title.

**Scope and Limitations**

**Scope**

The scope of this system is to develop a canteen point of sale and inventory and customer management system from the old, inefficient canteen manual, inventory-based system. The scopes of the system are the following:

* Security – The system has the capability to secure the data.
* Inventory – The system has the capability to create an inventory of the product.
* Summary report – The system has the capability to summarize the transactions of items.
* Item History- The system is capable of viewing items. Accessing the date of the transaction.
* File Maintenance
  + The system includes file maintenance that would automatically add, edit, delete, save, and retrieve information.
  + To be able to know the remaining stocks.
  + To be able to know how many items/products are fast moving.
  + To be able to know how many items are in a critical stage.
  + To be able to know how many items are already sold.

**Limitations**

The system only covers the identification of the number of stocks available in store. The system is intended only for Mater Dei College Canteen and its employees.