

**UNIVERSITY OF EDUCATION, WINNEBA**

**FACULTY OF SCIENCE EDUCATION**

**DEPARTMENT OF ICT**

**Feasibility Report: Small Supermarket Management System**

**Introduction:**

The purpose of this feasibility report is to assess the viability and practicality of implementing a Small Supermarket Management System for a local supermarket. The system aims to automate various operational processes, improve efficiency, and enhance customer service. The report will analyse the technical, economic, operational, and schedule feasibility of the proposed system.

**FEASIBILITY ANALYSIS:**

* **Technical Feasibility:**

The technical feasibility study evaluates the resources required to develop and implement the system. It assesses whether the technology and infrastructure are available to support the proposed system. In this case, the technical feasibility considerations include:

**Hardware Requirements:** The system will require a computer with a Pentium processor, 64 MB or higher RAM, and at least 200 MB of disk space.

**Software Requirements:** The system will be developed using Visual Basic as the programming language. It will be compatible with operating systems such as Win-98, Win-XP,win-7, win-11. The database will be implemented using MySQL (XAMPP).

**Front-end Selection:** Visual Basic provides a user-friendly graphical user interface (GUI) that assists employees without an IT background. It offers scalability, flexibility, and robustness. The platform independence and excellent reporting features make it a suitable choice.

**Back-end Selection:** MySQL as the back-end database will provide efficient data handling, inherent security features, and easy integration with the Visual Basic front-end.

* **Economic Feasibility:**

The economic feasibility study determines the cost-effectiveness and financial viability of implementing the proposed system. Key considerations include:

**Cost Analysis:** The cost to conduct a full system investigation, hardware and software procurement, and development efforts should be evaluated. The project should be economically justifiable, with the benefits (e.g., reduced costs, improved performance) outweighing the investment.

**Financial Resources:** The system development does not require a significant amount of funds. With proper planning and resource allocation, the project can be completed within a reasonable budget. The cost of the project will primarily depend on the number of man-hours required.

* **Operational Feasibility:**

Operational feasibility focuses on the impact of the system on the organization, including the changes brought about by its implementation. The following aspects should be considered:

**Organizational Impact:** The system should streamline operational processes, improve inventory management, and enhance customer service. It is important to assess the potential disruptions to existing organizational structures and determine the feasibility of incorporating the system smoothly.

**Skills and Training:** Visual Basic provides a user-friendly development environment, and existing staff members can be trained to work with the system effectively. Basic computer literacy and accounting knowledge are essential.

**Schedule Feasibility**:

Schedule feasibility evaluates the time required for system development and implementation. Considerations include:

**Development Time**: Visual Basic allows for rapid application development, enabling the creation of a Small Supermarket Management System within a reasonable timeframe. Proper project management techniques, including task allocation and timely execution, will ensure adherence to the project schedule.

**Study of the System:**

The Small Supermarket Management System will encompass various modules such as inventory management, sales tracking and reporting. It will provide a user-friendly interface for employees to perform tasks efficiently, manage inventory levels, and generate reports for analysis and decision-making.

**Hardware and Software Specifications:**

The proposed system will require the following hardware and software specifications:

**Project Requirements**

|  |  |  |
| --- | --- | --- |
| **HARDWARE REQUIREMENT** | | |
| **PROCESSOR** | **RAM** | **DISK SPACE** |
| **Pentium II, Pentium III,**  **Pentium IV or higher** | **1 Mb or Higher** | **500 mb** |
| **SOFTWARE REQUIREMENT** | | |
| **OPERATING SYSTEM** | **DATABASE** | |
| **Win-98, Win-XP, Linux or any other higher version** | **MySQL Database (Xampp), (work bench)** | |

**USER CHARACTERISTICS**

Every user should be:

* Comfortable of working with computer.
* Must have knowledge in accounting.
* Must also have basic knowledge of English too.

**Constraints**

* GUI is only in English.
* Login and password are used for identification of user and there is no facility for guest.