

**Sales, Purchase & Production Management System for**

**"SAMPATH PRODUCTS"**

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# Abstract

**“Sampath Products”** is a company that manufactures and distributes packets of **Biscuit powder** on a small scale in the area. It manufactures and distributes packets of various sizes following its own methods by procuring the required raw materials from a **few selected suppliers**. The primary targets for this are small **retail businesses and wholesale businesses** in the area. These buyers and suppliers are permanently identified.

Currently, they are continuing their business process with themselves as manual process. That was an essential way to do a such a thing because at that time period, the business was much simpler and small scaled one, however now it is increasing day by day, need a efficient system to manage the system is a business need to them.

As the solution for this problem this system will be created. For creating this kind of system, the OOP based programming language and framework should be used and as the tool for developing this kind of software, simple and common tools should be used. To overcome this problem, **Spring Boot** framework is used to developing the system which is based **Java** programming language. As the developing tool, simpler and common **Visual Studio Code** has been used. For the database manipulating, **MySQL** database management system was created.

For the software development architecture very popular **MVC model** was used. For developing methodology, **Iterative and incremental method** should be used for this kind of software since the requirement are changed continuously.

This report will be discussed how this procedure is continuing as well as what are the strategies and design patterns used to create this.

# Table of Content

[Abstract ii](#_Toc162387759)

[Table of Content iii](#_Toc162387760)

[Chapter 1: Introduction 1](#_Toc162387761)

[1.1 Motivation for project 1](#_Toc162387762)

[1.2 Project Objectives 2](#_Toc162387763)

[1.2.1 Privilege Management Sub - System 2](#_Toc162387764)

[1.2.2 Supply Management Sub-System 2](#_Toc162387765)

[1.2.3 Process Management Sub-System 2](#_Toc162387766)

[1.2.4 Distribution and sales Management Sub-System 3](#_Toc162387767)

[1.3 Scope of the Project 3](#_Toc162387768)

[Chapter 2: Analysis 4](#_Toc162387769)

[Chapter 3: Design of Solution 5](#_Toc162387770)

[Reference 7](#_Toc162387771)

# Chapter 1: Introduction

## Motivation for project

Sampath Products, the biscuit powder company is currently being run completely manually. Due to the increase in the number of orders received and increase in demand, there is difficulty in store, handling data and information about the business. Basically, the following types of data can be identified in this business.

* Data and information about **suppliers and supply process**.
* Data and information related to the **manufacturing process**.
* Data and information on **product distribution and sales**.

Due to the increase in the number of orders that are increasing day by day and the fact that this procedure is almost completely manual and not automated, many problematic situations arise.

* **Lack of proper understanding of the quantities of raw materials required.**

With this problem, business faces related sub problems related this. When the orders manipulating, they have accepted much more customer orders over, they can be manipulated, because of understanding how much usable raw materials they have already with them. Then they would be failed to order a new bulk of materials at time.

* **Haven’t systematic way to order materials as soon as they wanted.**

Currently they have not any well managed and organized way to inform their suppliers how much raw materials they needed, as well as, by when they needed them. Sometimes they are purchasing the materials, from the wrong supplier without analyzing the quotation values with the other supplier as well.

* **Difficulty keeping track of leftover biscuit powders to pack.**

Because of this issue the company will loss money in various ways. When there is no any systematic way to batch handling and manipulating products, they will miss the recently expiring product batches as well as the will produce many more products even tough they have the already manufactured products.

To store and handle this data and information and to resolve these problems, it is expected to create a web application.

## Project Objectives

The aim of this project is to help the existing business activities, such as supplier management, manufacture and production management and customer and sales management of the business by giving correct and efficient answers to the weaknesses mentioned above. All the activities mentioned above are carried out by the following subsystem available in this system.

### Privilege Management Sub - System

The main objective of this project is to provide and manipulate the data and information on business activities. When these information and data properties are manipulated there are few roles are defined as the client’s requirements. So, mainly we can identify administrative people and sales representative people. So, in this system the security maintenance is very important and for that security needs, a logging system is maintained. So that, the transparency and accurateness of the data is increases. Then the reliability of the transaction will be increased.

### Supply Management Sub-System

This section mainly addresses the problems regarding the supplier management and raw material processes. Most problems are happened when ingredients are low to manufacture the products. So, there should be a method to indicate how much remaining raw materials are there in stores. User can identify and place an order to purchase materials when store is less than certain amount. Cost management and quotation management can be done with the system. Not only the raw material manipulating, but also this section can be used for maintaining supplier details. Quotation management also can be done by this.

### Process Management Sub-System

This section is created to manipulate the store details on the already manufactured products. Here we can get an understanding of the existing prepared biscuit powder and the number of packets of each size. These products are separated as the batches according to their manufactured date. Then we can know about the expiry dates of the currently remaining packets. Then wastage is decreasing. When manage the customer orders, it is easy to know about the total amount of packets required for orders and their quantity.

### Distribution and sales Management Sub-System

The system owned company has a clearly defined customer base. The products those manufactured by the business is sold to the small groceries and wholesale businesses. Those customer businesses are well defined. By this sub system the process on customer order note handling, taking notes on customer orders will be handled. Manipulating the customer details also one of the main objectives of this system. Information database of customer information will be managed under this system. This system keeps the records on information about the quantities of packets sold and the income.

## Scope of the Project

**Supply Management Sub-System**

* Supplier Management.
* Purchase Order Management
* Material Receive Note Management
* Material detail, Inventory Management
* Quotation Request Management.
* Supply Payment Management

**Process Management Sub-System**

* Material Analysis Management.
* Production Order Management.
* Product detail Management
* Inventory Management

**Distribution and sales Management Sub-System**

* Customer Management.
* Customer Order Management.
* Customer Invoice Management
* Delivery Management
* Payment Management

**Privilege Management Sub - System**

* User Management.
* Privilege Management.

# Chapter 2: Analysis

# Chapter 3: Design of Solution

# Reference