



## Assignment Cover Letter (Individual/Group\* Work)

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**Course Code** : COMP 6213

**Course Name:** Object Oriented Programming

**Class** : B2AC

**Name of Lecturer(s):** 1. Mr. Jude J.L  
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**Major** : Computer Science

**Title of Assignment** :  
(if any)

**Type of Assignment** : Report writing

**Submission Pattern**

**Due Date** : **Submission Date** : June 22 2021

The assignment should meet the below requirements.

1. Assignment (hard copy) is required to be submitted on clean paper, and (soft copy) as per lecturer's instructions.
2. Soft copy assignment also requires the signed (hardcopy) submission of this form, which automatically validates the softcopy submission.
3. The above information is complete and legible.
4. Compiled pages are firmly stapled.
5. Assignment has been copied (soft copy and hard copy) for each student ahead of the submission.

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*Signature of Student:*

1.

*(Name of Student)*

Chavia Zagita Karinda

# FINAL PAPER OBJECT ORIENTED PROGRAMMING : TRANSACTION MANAGEMENT GUI APPLICATION

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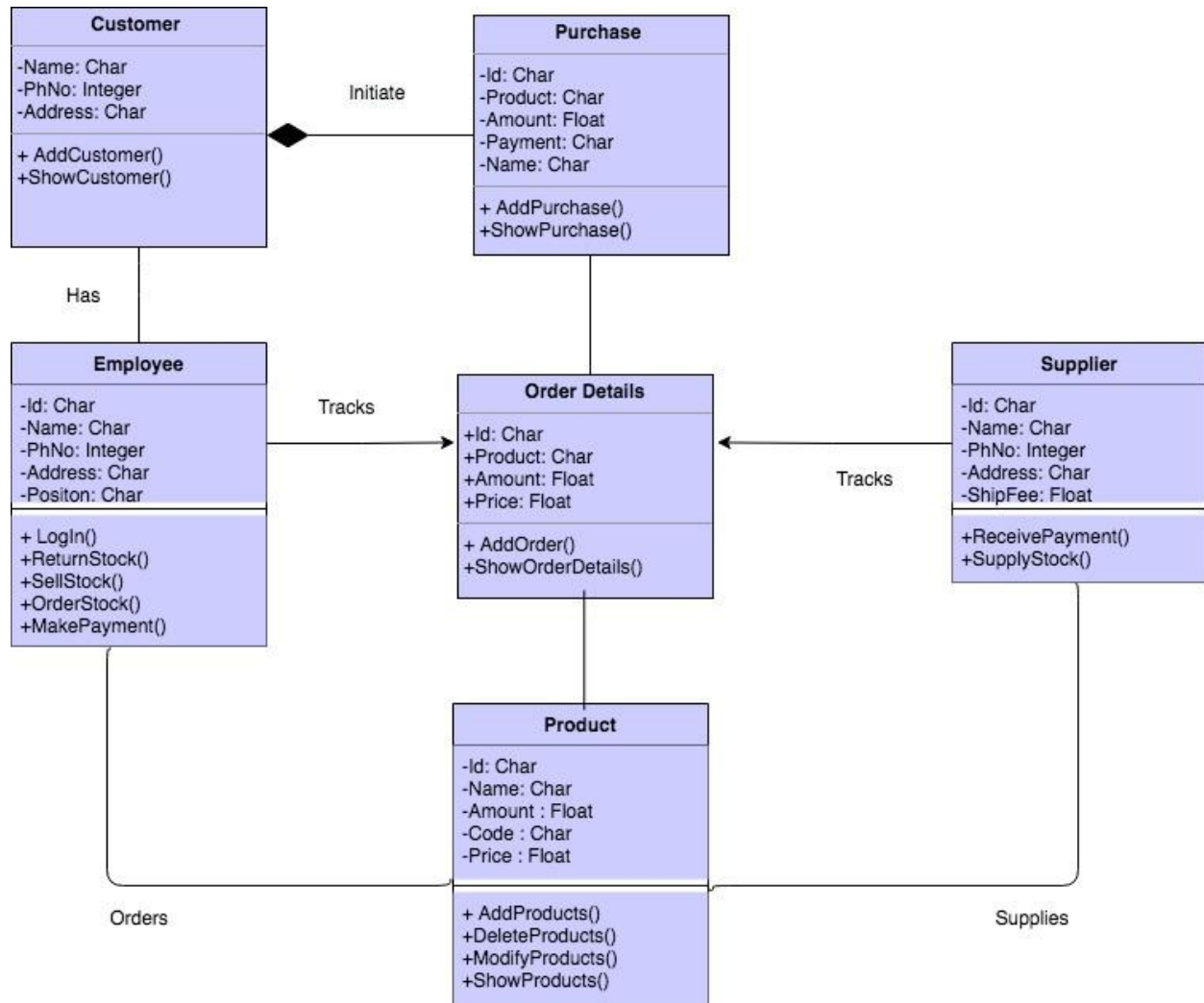
- **Project Specification**

Small or wholesale business owners can use mobile apps for transaction management and sales wherever they go. Using a fully-featured GUI for stock management allows owners, buyers and sales reps to track product, capture leads and make changes even when they're not in the office.

That kind of instant availability can make the difference between gaining or losing a potential customer. It enables you to create, edit, and manage sales orders, whether you are at a trade show or meeting with a customer. This stock management app allows sales professionals to manage customer relationships by providing access to customer information, sales opportunities, and communication tools.

It is a Java transaction management GUI application that is basically Designed in Java while following the concepts of Object oriented programming in interface (GUI). Java based project with MySQL database developed using Netbeans IDE. It also developed using JForm which handles various modules like purchase, sales, payments, and customers. This project is a point of sale application designed for electronic devices. It handles the transaction of Products, the Client's information, and the sales of the day.

- **Solution Design**



- **Discussion**

Nowadays, most enterprises are characterized by competitions, such as the variety of products and specifications, the rapid changes in market demand, and the increasingly close relationship with distributors and retailers. With the expansion of business volume, traditional management methods can no longer handle the ever expanding large amount of business data.

Transaction Management is a cost-effective solution for managing raw material & transactions. Managing the transaction reduces the transaction carrying cost by transaction procurement and assisting the management in just in time decision-making. transaction management is ideal business solution for manufacturers and producers who want to reduce their operational costs and become more competitive

Transaction Management manages the procurement of transactions on the basis of purchase orders. System performs the analysis of required transaction items for manufacturing orders, and generates the demand for a particular item to the particular vendor of each of the transaction items. It then generates the purchase orders for suppliers to update stock as needed if there's any issue possible without the lack of time consuming.

Transaction management provides effective, and practical solution to automate the Procurement process and other up-stream supply chain operations. Transaction management provides a competitive edge to manufacturers by reducing the transaction carrying cost and by avoiding production delays through timely availability of raw materials. Also the cost of production goes down due to control in the raw material.

The realization of enterprise information management is a necessary condition for the steady development of small and medium-sized enterprises in modern society. It can improve the management level and work efficiency of the enterprise and minimize the errors caused by manual operation. Invoicing management system is just an information management software, which can realize the information management of enterprises' purchase, sales, transaction management and other businesses.

For the above reasons, the design of this project will be based on the mysql server database and Java as the development environment to design and implement an enterprise invoicing management system. Each variable in transaction management has a type that determines what kinds of values it can be assigned or initialized with primitive data types. Such as string, char, integer, float. For data structure I've employed a class, which will be referred to later in the main form class using arraylist. This ArrayList will store the data based on the conditions defined in that class.

By analyzing the functional requirements of the purchase, sales and transaction management system, the system can be divided into 5 parts: purchase management, sales management, transaction management, customer's, employee's, supplier information. Created using Java, MySQL Database, Inheritance, Polymorphism, Interfaces, Exception handling, primitive data types , Java collection etc.

It is a menu driven program and it runs until the user exits. File handling has been used to store the current status of the store (customer details, purchases, products ordered) in a file once the program exits so that when we restart the program, the old details are not lost. Exception handling is properly done to deal with any kind of unexpected exception. Using it for error handling while connecting to the database. So, if the connection fails, information will be displayed, and if there is an input error or a failure to save, information will be displayed as well.

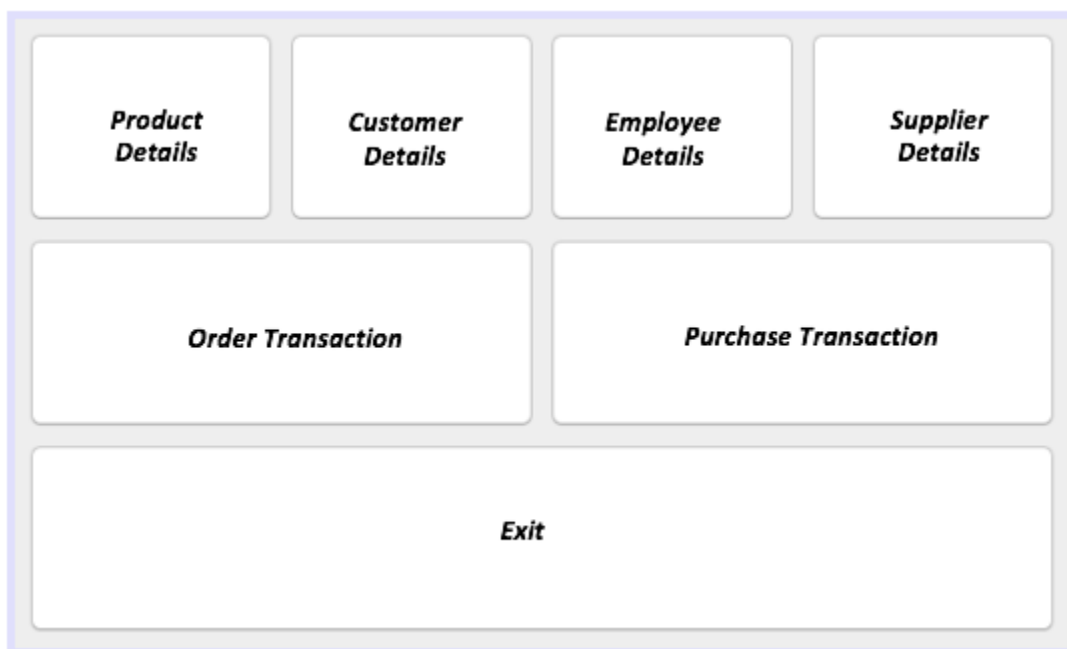
- **Appendix**

**A. Login**



The screenshot shows a window titled "Aplikasi Pendataan Barang". Inside the window, the word "Login" is centered at the top. Below it, there are two input fields: "Username" with the text "admin" and "Password" with six asterisks "\*\*\*\*\*". At the bottom of the window is a large, light blue button with the text "Login".

**B. Menu**



The screenshot shows a main menu interface with a light gray background and a purple border. It contains six buttons arranged in three rows. The first row has four buttons: "Product Details", "Customer Details", "Employee Details", and "Supplier Details". The second row has two buttons: "Order Transaction" and "Purchase Transaction". The third row has one large button: "Exit". All buttons have a light gray background and a thin border.

### C. Employee Details

#### Employee Details


ID Card

Employee Name

Phone Number

Address

Position

Kepala G...

Salary

Simpan

Ubah

Hapus

Title 1	Title 2	Title 3	Title 4

### D. Supplier Dashboard

#### Supplier Details

Supplier Name

Phone Number

Supplier Product

Supplier Address

Shipping Fee

Simpan

Ubah

Hapus

Title 1	Title 2	Title 3	Title 4



## F. Customer Details

### Customer Details

Customer Name

Customer Ph. Number

Address

Simpan

Ubah

Hapus

Title 1	Title 2	Title 3	Title 4

## G. Product Details

### Product Details

Product ID

Quantity

Product Name

Real Price

Market Price

Simpan

Ubah

Hapus

Title 1	Title 2	Title 3	Title 4

## H. Point of Sales

### *Sales Transaction*

Transaction ID

Product

-

Amount

Payment Method

CASH

Customer Name

-

Simpan

Ubah

Hapus

Title 1	Title 2	Title 3	Title 4

## I. Purchase Transaction

### *Purchase Transaction*

Transaction ID

Product

-

Amount

Payment Method

CASH

Supplier Name

Price

Simpan

Ubah

Hapus

Title 1	Title 2	Title 3	Title 4
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