Inventory Management System UML Diagrams
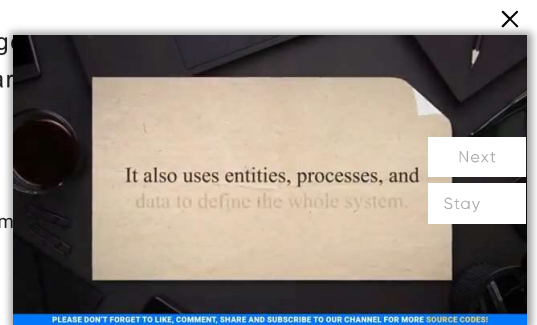
January 18, 2022 by Nym

Inventory Management System UML Diagrams

Inventory Management System UML Diagrams – are diagrams formed to design the structure and behavior of the project. These UML Diagrams were used to visualize the possible users, processes, activities and sequence of events in Inventory Management System. Its purpose is to analyze, understand and know the needs of the project before developing it.

The UML Diagrams are part of project documentation that represents the overall Inventory Management System function. Each of these diagrams shows different visualization of Inventory Management System structures and behavior towards data handling and interaction with the targeted users. The Structural UML Diagrams represents the rightful structure and features of the Inventory Management System. On the other hand, the Behavioral UML Diagrams illustrates the System's behavior towards the users and data handling.

What are UML Diagrams?

UML diagrams are diagrams based on the UML (Unified Modeling Language) Inventory Management System including its major actors, roles, actions, a understand, edit, maintain, or document information.

Software engineers use the UML modeling language to create diagrams and provide ready-to-use, expressive modeling examples to users (programmers). Some UML tools create code in a programming language. The UML Diagrams are categorized into two types: the structural diagrams and the behavioral diagrams.

Inventory Management System Activity Diagram

But is it necessary for Inventory Management System to have UML Diagrams? The answer is YES. Its because the UML diagrams are the visual designs or the blueprint of the system structure and behavior. Structural diagrams helps in building the structure of Inventory Management System while the behavioral diagrams in UML helps in determining its behavior towards the user, data inputs and producing an output. All of the UML diagrams

works in sync and relatively to achieve a well-engineered project.

How to build an Inventory Management System UML Diagrams?

The first thing that you must do before building UML Diagrams for the System is to collect as much Inventory Management data as you can. You'll need to know how they manage purchasing' information and processing sales transactions. You must complete all the necessary information in order to provide a quality system for them. Then you'll apply the data gathered in designing the UML diagrams.

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The purpose of building the system is to provide the Company employees and owners the easier and efficient way

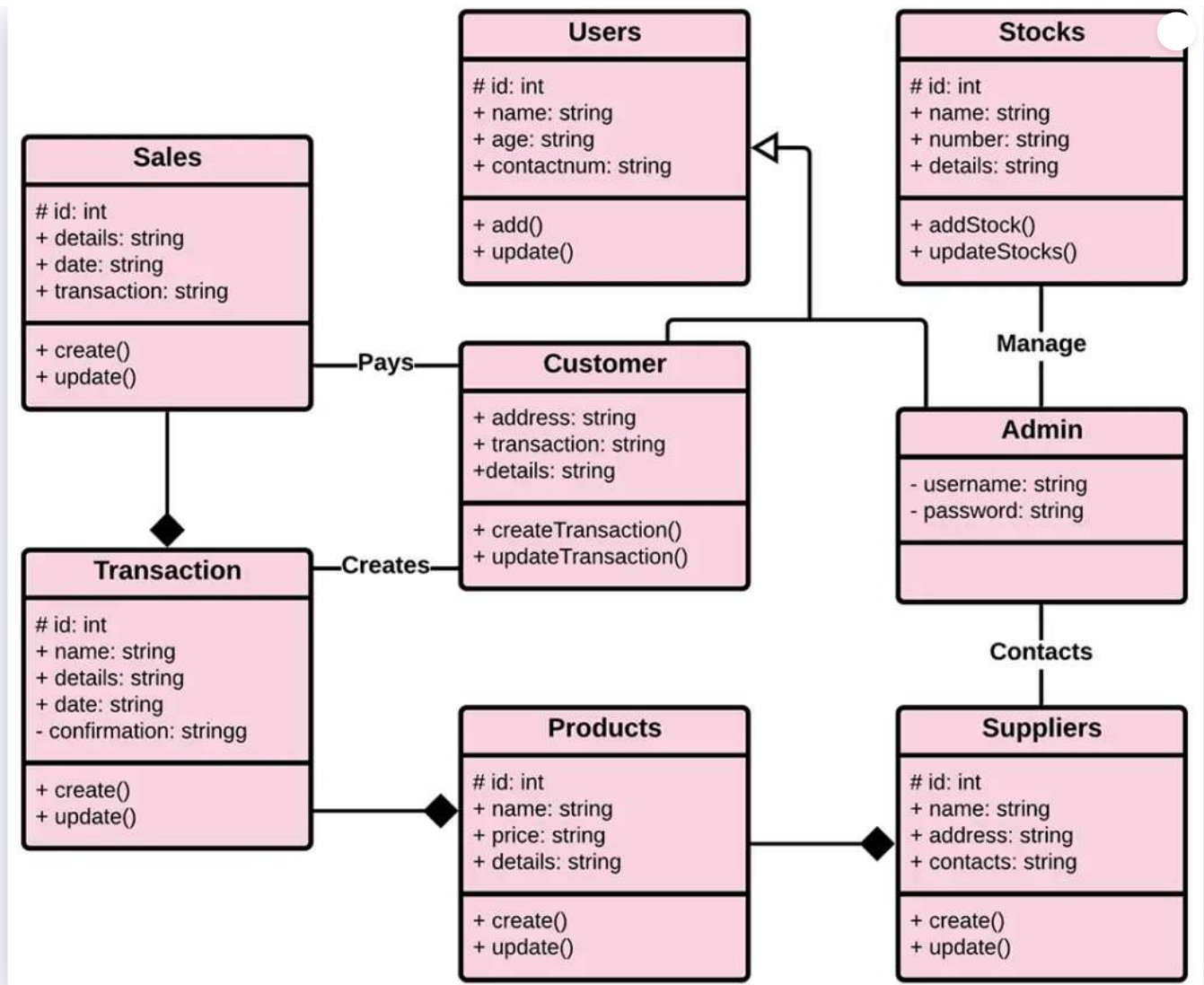# Inventory Management System Project UML Diagrams:

Time needed: 10 minutes.

Here are the UML Diagrams that composes a Inventory Management System. Each of the UML Diagrams has a major role in achieving a well-developed and functional Inventory Management System.

1. **Inventory Management System Class Diagram**

    The Class diagram for Inventory Management System shows the structures of information or data that will be handled in the system. These data or information will be represented by classes. Each of the classes will have their attributes in accord to the methods they will use. So the UML Class diagram was illustrated by a box with 3 partitions and the upper part was the name of the class, the middles are the attributes and the bottom is for the methods. The arrows on them represents their relationships in each other.
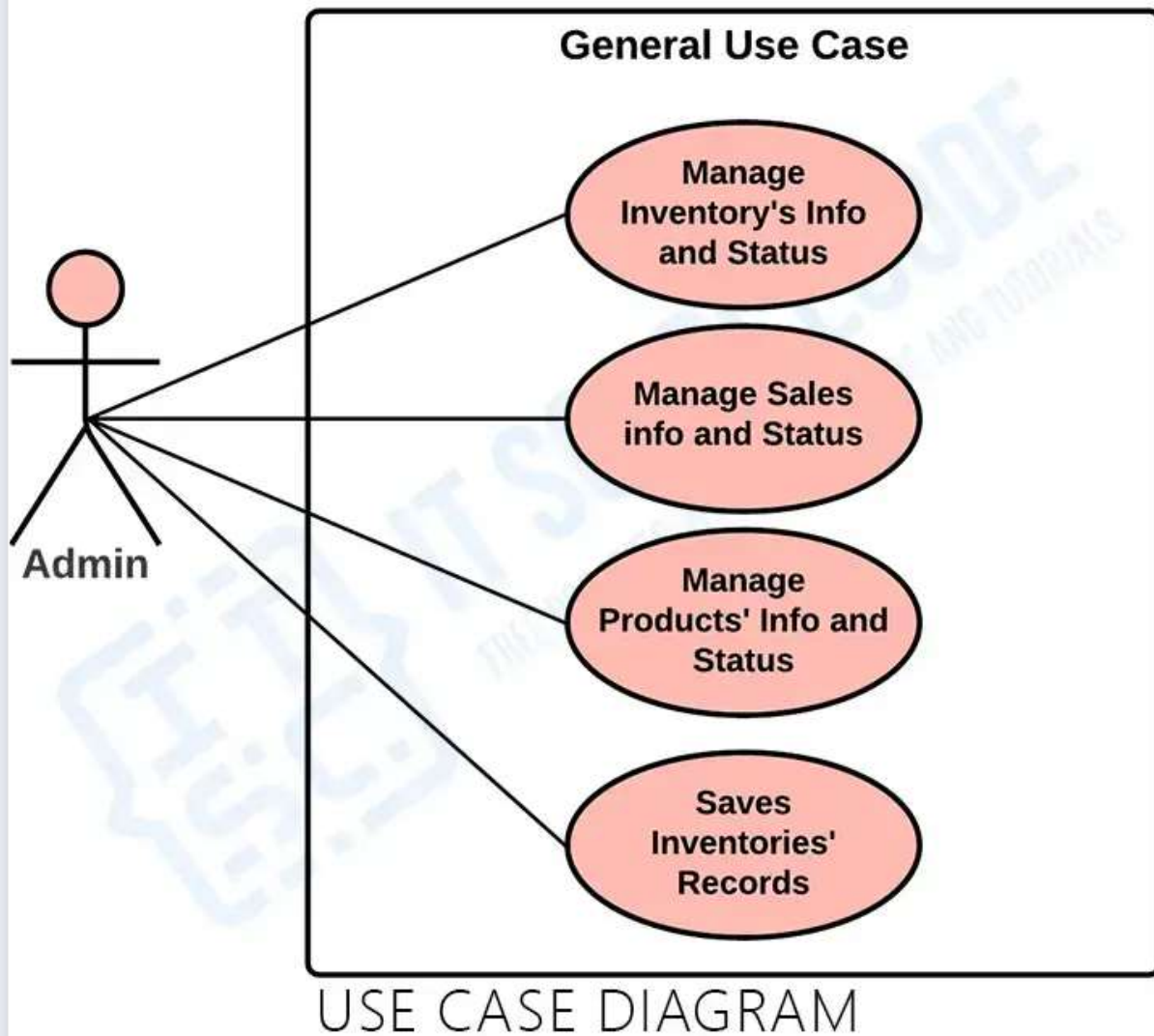
Next

(X)

This structure is designed to know the part and characteristic of all the data that will be used in the system. So the classes that are included in an Inventory management would be the **stocks**, **sales**, **products**, **customers**, **users**, **suppliers** and **transaction**. The mentioned classes were just general. If you want more complex or wider scope of your Inventory management system, then you can add your desired classes. You must also include the database on your Class Diagram for your system.

2. **Inventory Management System Use Case Diagram**

The use cases in the diagram represents the main processes in Inventory Management System. Then they will be broken down into more specific use cases depending on the included processes of the main use case. Each of these use cases explains how the system handles the actions or scenarios requested by the user.

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INVENTORY MANAGEMENT SYSTEM

General Use Case

Admin

- Manage Inventory's Info and Status
- Manage Sales info and Status
- Manage Products' Info and Status
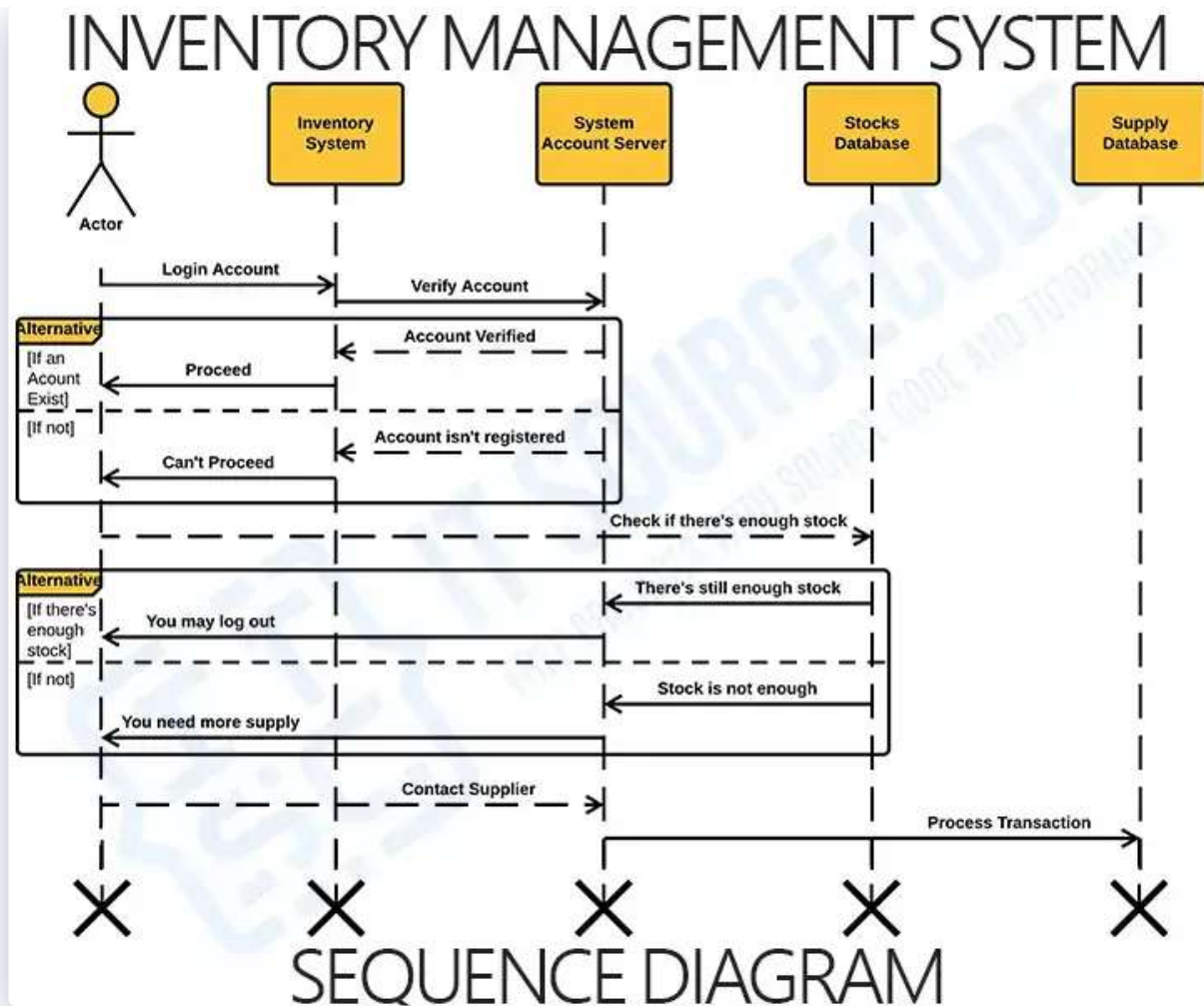- Saves Inventories' Records

USE CASE DIAGRAM

The UML Use Case Diagram is a design used as one of the Methodology on Inventory Management System development. It represents the main functions or processes of the system as well as the specific processes included. They were also labelled properly to guide programmers and users about the structure of Inventory Management System.

3. **Inventory Management System Sequence Diagram**

The designed sequence diagram illustrates the series of events that occurs in Inventory Management System. In this illustration, the actors are represented by a stick man and the transactions or classes are represented by objects. It will give you clear explanation about the be[...] System in terms of processing the flow of instructions.
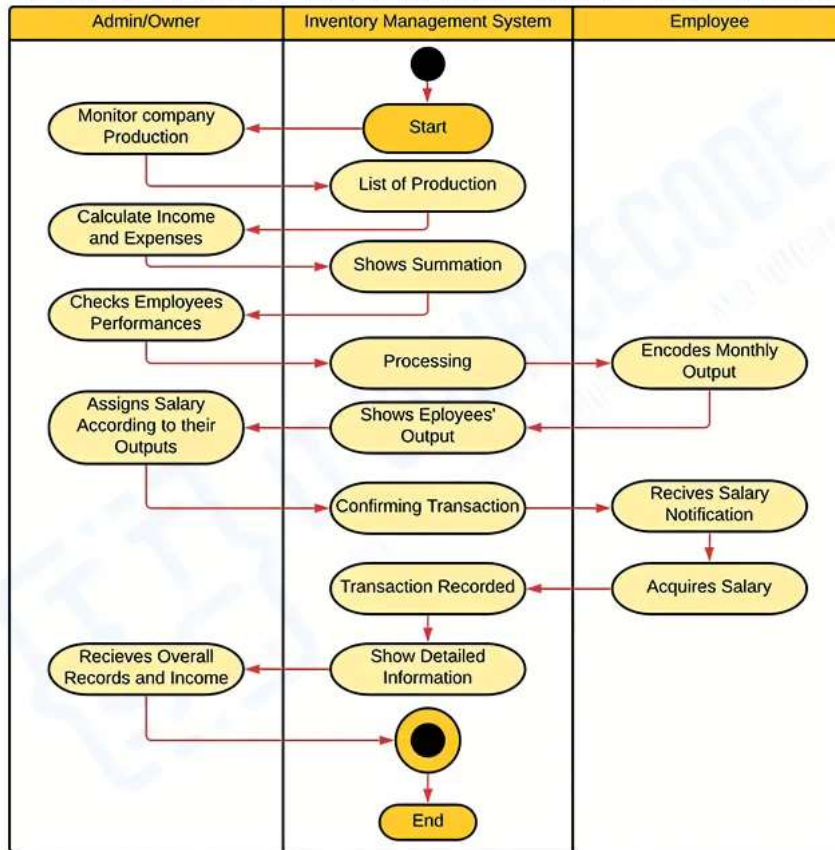
Next

This designed sequence diagram is able to show programmers and readers about the sequence of messages between the actor and the objects.

4. **Inventory Management System Activity Diagram**

Here's the UML activity diagram design of Inventory Management System that you can use for your own Final year Project. The UML activity Diagram is used to show the interaction of the user and the system. By creating it, you'll be able to see the flaws of the system and you may avoid it once you apply it to the project development. So it is important to have your diagrams designed first before jumping into its development.
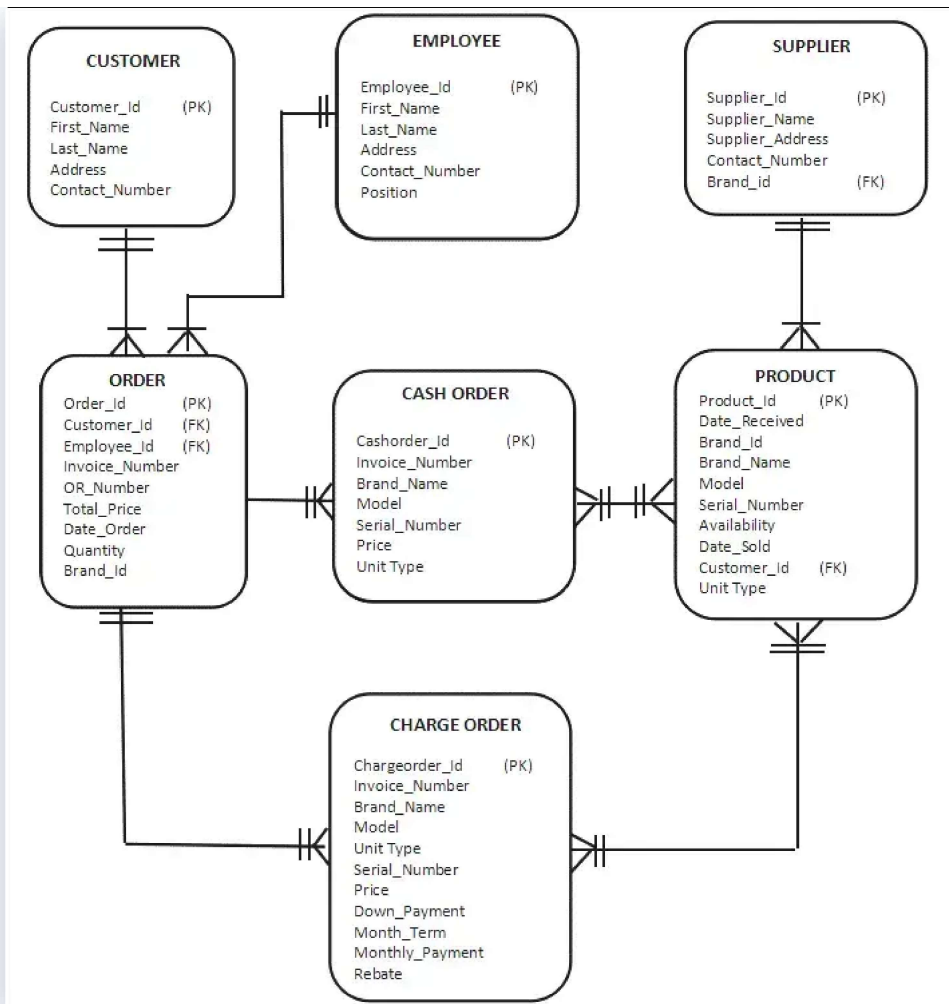
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INVENTORY MANAGEMENT SYSTEM

ACTIVITY DIAGRAM

Admin/Owner	Inventory Management System	Employee
Monitor company Production	Start	Encodes Monthly Output
Calculate Income and Expenses	List of Production	Recives Salary Notification
Checks Employees Performances	Shows Summation	Acquires Salary
Assigns Salary According to their Outputs	Processing	
	Shows Eployees' Output	
	Confirming Transaction	
	Transaction Recorded	
Recieves Overall Records and Income	Show Detailed Information	
	End	

Now to create this kind of diagram, you have to determine the processes involve, the users and finalize the behavior of your proposed system.

- Database Design Project for Inventory Management System

This diagram shows the design of the system's database. This design could be applied at the back end of the system development. It also serves as the design for the data storage that the system needs. It secures all the essential data in the system and preserves them for important task or when needed.

Next

CUSTOMER

Customer_Id (PK)
First_Name
Last_Name
Address
Contact_Number

EMPLOYEE

Employee_Id (PK)
First_Name
Last_Name
Address
Contact_Number
Position

SUPPLIER

Supplier_Id (PK)
Supplier_Name
Supplier_Address
Contact_Number
Brand_id (FK)

ORDER

Order_Id (PK)
Customer_Id (FK)
Employee_Id (FK)
Invoice_Number
OR_Number
Total_Price
Date_Order
Quantity
Brand_Id

CASH ORDER

Cashorder_Id (PK)
Invoice_Number
Brand_Name
Model
Serial_Number
Price
Unit Type

PRODUCT

Product_Id (PK)
Date_Received
Brand_Id
Brand_Name
Model
Serial_Number
Availability
Date_Sold
Customer_Id (FK)
Unit Type

CHARGE ORDER

Chargeorder_Id (PK)
Invoice_Number
Brand_Name
Model
Unit Type
Serial_Number
Price
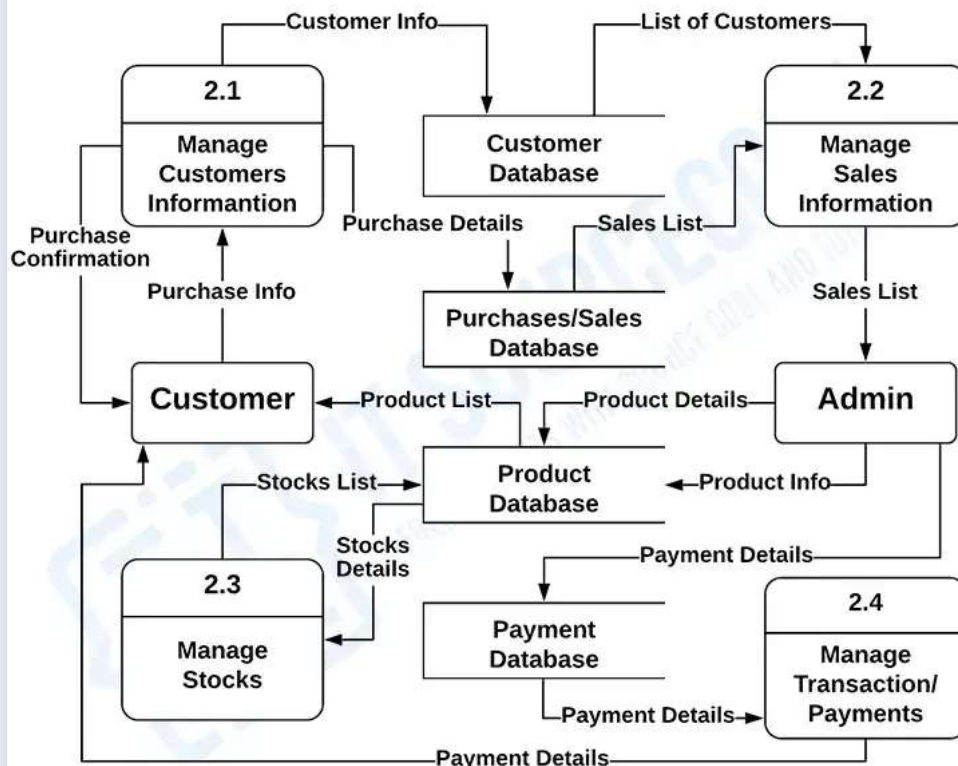Down_Payment
Month_Term
Monthly_Payment
Rebate

- Inventory Management System DFD Level 0, 1 and 2

As addition to the diagrams that will be a big help in doing your Project is the Data Flow Diagram. It does not belong to the UML diagrams but it also helps in knowing more about the Inventory Management System. So the DFD serves as an illustration of the systems data handling. As you can see, this DFD design is in level 2, it has levels 0, 1 and 2 but the most complex and wider among the 3 is the level 2. So here you will see the main processes included. You may relate these processes from your use case Diagram.

Next

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INVENTORY MANAGEMENT SYSTEM

DATA FLOW DIAGRAM LEVEL 2

Tips on Designing the UML Diagram of Inventory Management Project System

To design your UML diagram, you may use platforms and editing tools online. These tools are helpful since they already have the needed symbols to illustrate your diagrams. You just have to plot the included symbols, arrows and labels. The platforms or online tools that you may use are:

• Lucidchart
• Creately
• Smartdraw
• Edrawmax
• Canva

Conclusion:

As a whole, the UML Diagrams works together to achieve the most desired functions of the Inventory Management System Project. All of these were designed to guide programmers and begi
of Inventory Management System.

Next

By completing all the given Diagrams, the Inventory Management Project System development would be much easier and attainable. So those UML diagrams were given to teach you and guide you through your project development journey. You can use all of the given UML diagrams as your reference, or have them for your project development. The ideas presented in UML Diagrams were all based on Inventory Management System requirements.

Inquiries:

Now let me ask you something. What have you learned through the discussion?

May this article help you with your projects in the future!

If you have inquiries or suggestions about **Inventory Management System Complete UML Diagrams** just leave us your comments below.

Keep us updated and Good day!

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