Carlos Hilado Memorial State College

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To be a leading GREEN institution of higher learning in the global community by 2030
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Guidelines for the Term Project:

- Each group must have five (5) members.
- List the names of your groupmates.
- Analyze and evaluate the systems project provided.
- Create a Data Flow Diagram and Entity – Relationship Diagram.
- You can use any available software in making the DFD and ERD.

Below is the data dictionary structures of **Online Hardware Supplies Monitoring System with Predictive Analytics**. Analyze to create a Data Flow Diagram and an Entity-Relationship diagram of the system.

Customer

Field name	Optional	Data type	Length	Key	Description
cust_id	N	INT	11	PK	Primary Key of the Customer
cust_last	N	VARCHAR	50		Last name of the customer
cust_first	N	VARCHAR	15		First name of the customer
cust_address	N	VARCHAR	100		Address of the customer
cust_contact	N	VARCHAR	30		Contact number of the customer
branch_id	N	INT	11	FK	unique identifier of the branch
tin	N	VARCHAR	10		Tin number of the customer
business_name	N	VARCHAR	100		Name of the business
balance	N	DECIMAL	10.2		Balance of the customer

Product

Field name	Optional	Data type	Length	Key	Description
prod_id	N	INT	11	PK	Primary Key of the product
prod_name	N	VARCHAR	100		Name of the product
supplier_id	N	INT	11		Unique identifier of the supplier
prod_price	N	DECIMAL	10.2		The price of product
prod_qty	N	VARCHAR	10		Number of the remaining products
unit	N	DECIMAL	10		The unit of the product
cat_id	N	VARCHAR	20		The category of the product
re-order	N	INT	6		Notifies if the product needs to be reorder
branch_id	N	INT	11	FK	Unique identifier of the branch

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Stock_Moves

Field name	Optional	Data type	Length	key	Description
stock_moves_id	N	INT	11	PK	Primary key of the stock moves
prod_id	N	INT	11	FK	Unique identifier of the product table
Qty	N	NUMBER	50		Number of the remaining stocks of the products
date	N	DATE			Date when the stock is updated
Type	N	VARCHAR	25		type of the product

Sales_order

Field name	Optional	Data type	Length	Key	Description
sales_order_id	N	INT	11	PK	Primary Key of the sales order
cust_id	N	INT	11	FK	Unique identifier of the customer table
amount_due	N	DECIMAL	10.2		The total amount due of the customer
sale_order_date	N	DATETIME			Date when the customer purchased
Delivery	N	VARCHAR	30		Delivery of the product
Sale_order_staus	N	VARCHAR	10		The status of sales order
Branch_id	N	INT	11	FK	Unique identifier of the branch table
payment_method	N	VARCHAR	30		The method of the payment if its cash or check
Charge	N	DECIMAL	10.2		The amount charge of was depends on customer purchased.
Total	N	DECIMAL	10.2		The total of customer purchased
Delivered	N	INT	11		Confirmation of customer order

Branch

Field name	Optional	Data type	Length	Key	Description
branch_id	N	INT	11	PK	Primary key of the branch
branch_name	N	VARCHAR	20		Name of the branch
branch_address	N	VARCHAR	100		Address of the branch
branch_contact	N	VARCHAR	100		Contact Number branch
branch_color	N	VARCHER	30		Color of each branch

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Category

Field name	Optional	DATA type	Length	Key	Description
cat_id	N	INT	11	PK	Primary key of the category
cat_name	N	VARCHAR	30		Name of the category

Sales_details

Field name	Optional	Data type	Length	Key	Description
sales_details_id	N	INT	11	PK	Primary key of sales details
sales_order_id	N	VARCHAR	20	FK	Unique identifier of sales order table
prod_id	N	VARCHAR	100	FK	Unique identifier of product table
price	N	VARCHAR	100		Price of the product
qty	N	VARCHAR	30		Number of the remaining products
subtotal	N	DECIMAL	10.2		subtotal of the sales
Delivery_status	N	VARCHAR	30		Status of the delivery

User

Field name	Optional	Data type	Length	Key	Description
user_id	N	INT	11	PK	Primary key of user admin
Username	N	VARCHAR	15		Username of the user admin
Password	N	VARCHAR	50		Password of the user admin
firstname	N	VARCHAR	50		Firstname of the User admin
lastname	N	VARCHAR	30		Lastname of the User Admin

Payment

Field name	Optional	Data type	Length	Key	Description
payment_id	N	INT	11	PK	Primary key of the payment
payment_date	N	DAYTIME		FK	The date of payment
payment_amount	N	DECIMAL	10.2		The amount of the customer payment
cust_id	N	VARCHAR	25		Unique identifier of the customer
payment_for	N	INT	11	FK	Unique identifier of the branch table

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Supplier

Field name	Optional	Data type	Length	Key	Description
Supplier_id	N	INT	11	PK	Primary key of the transaction
Supplier_name	N	INT	11	FK	Unique identifier of the product table
balance	N	DECIMAL	6.2		Price of the product

Unit

Field name	Optional	Data type	Length	Key	Description
unit_id	N	INT	11	PK	Primary key of the transaction
Unit	N	INT	11	FK	Unique identifier of the product table

Temp_trans

Field name	Optional	Data type	Length	Key	Description
temp_trans_id	N	INT	11	PK	Primary key of the transaction
prod_id	N	INT	11	FK	Unique identifier of the product table
Price	N	DECIMAL	6.2		Price of the product
Qty	N	VARCHAR	25		Number of the product transaction

History_log

Field name	Optional	Data type	Length	Key	Description
log_id	N	INT	11	PK	Primary key of the transaction
User_id	N	INT	11	FK	Unique identifier of the product table
Action	N	DECIMAL	6.2		Price of the product
Date	N	VARCHAR	25		Number of the product transaction

Inventory

Field name	Optional	Data type	Length	Key	Description
inventory_id	N	INT	11	PK	Primary key of the transaction
inventory_name	N	INT	11	FK	Unique identifier of the product table
inventory_date	N	DECIMAL	6.2		Price of the product
inventory_total	N	VARCHAR	25		Number of the product transaction
Branch_id	N	INT	11	FK	Unique identifier of the branch table

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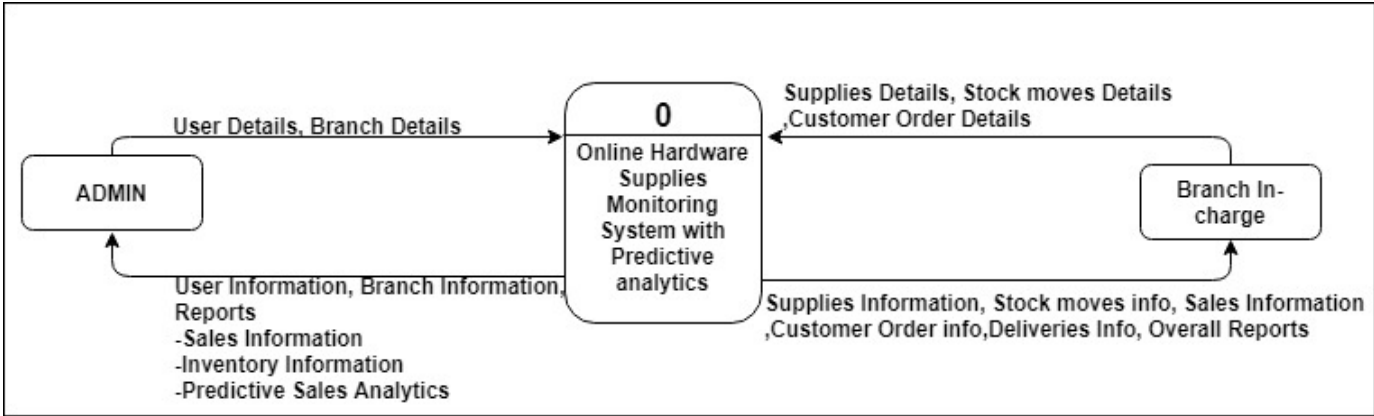
Inventory_details

Field name	Optional	Data type	Length	Key	Description
inventory_details_id	N	INT	11	PK	Primary key of the transaction
inventory_id	N	INT	11	FK	Unique identifier of the product table
prod_id	N	DECIMAL	6.2	FK	Price of the product
inventory_qty	N	VARCHAR	25		Number of the product transaction
Inventory_value	N	VARCHAR	25		Value of the supplies inventory
Inventory_prod_price	N	VARCHAR	25		Product price of the supplies inventory

Delivery

Field name	Optional	Data type	Length	Key	Description
Delivery_id	N	INT	11	PK	Primary key of the transaction
Sales_order_id	N	INT	11	FK	Unique identifier of the product table
Delivery_date	N	DECIMAL	6.2		Price of the product
Delivery_address	N	VARCHAR	25		Number of the product transaction

Note: The Data Dictionary will be your basis in creating ERD.

The Context Data Flow of Online Hardware Supplies Monitoring System with Predictive Analytics

Note: The Context Data Flow is your basis in creating DFD.