



CSE302: Database Systems (Section 7) Spring 2024

Project Report

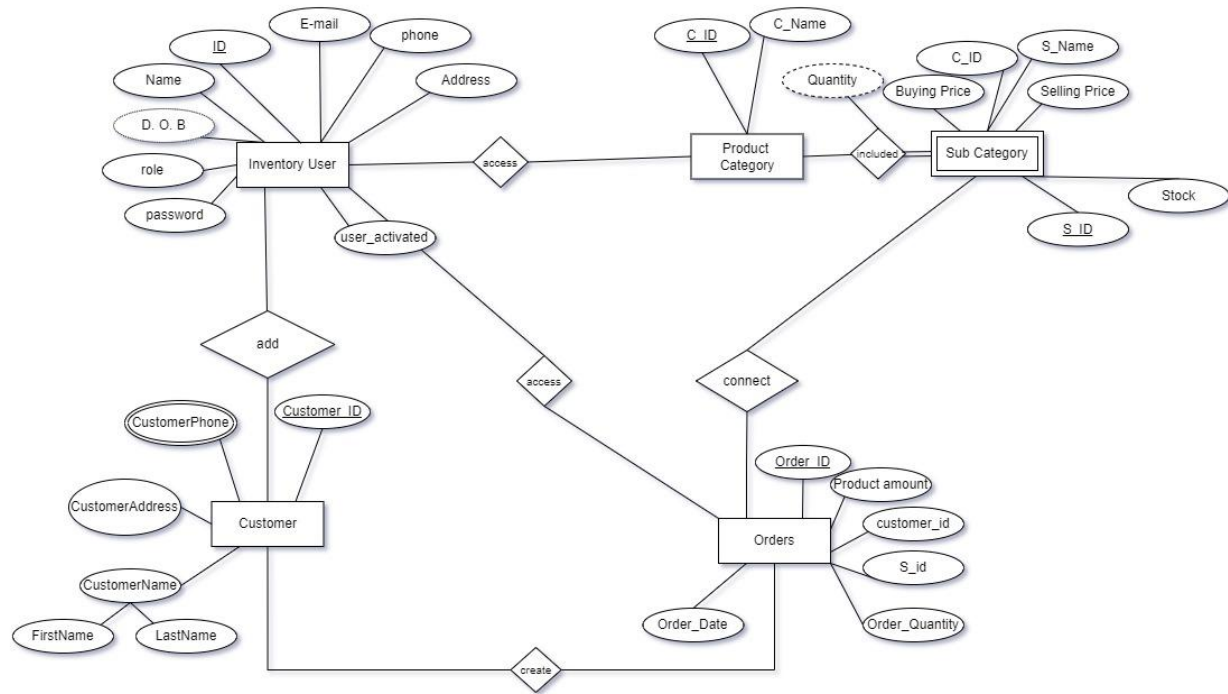
Inventory Management System with POS

<https://shorturl.at/phyNa>

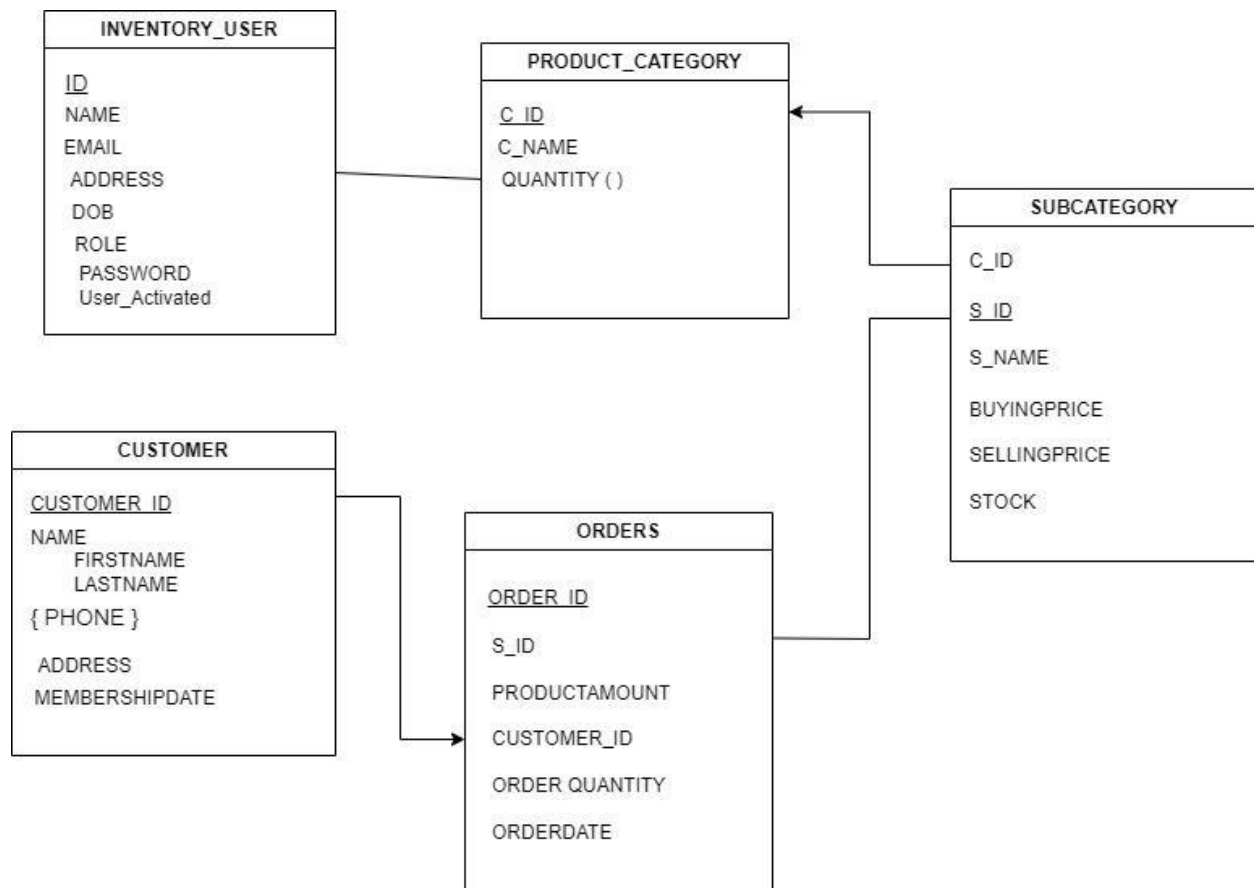
Submitted by:

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1. E-R Model of the Project



2. Schema Design of the Project



3. Implementation Checklist

Description	Remarks
Project ID	204550
Workspace Name	RAFI
Workspace Email	saleh.rafi.01@gmail.com
Workspace Password	kichuekta
Authentication Type	Custom
Username and Password to Login	Username: admin, Password: 1234 Username: testing, Password: 1234
Number of Reports with Forms	7
Number of Reports based on Queries, Aggregate Queries	8
Extra features	We are using Sequence to generate an automatic user ID. Sometimes unique ID generation is impossible for us. It can be help to generate unique ID every time when create a new user.
Unique functionality	There are lots of unique functionality in our app. We use sequence, navigation menu, dropdown, authorization, custom authentication, nested subqueries and many things.

4. Reports with Forms

Report Page Number and Name	Form Page Number and Name	Table
2- Details Customer Information	7- Customer	Customer
		CustomerName
		CustomerPhone
4- Non Admin Information	7- Customer	InventoryUser
12- Debit and Credit Information	11- Product Category 33- Order	SubCategory
		Orders
14- Inventory User Details	13- Inventory User	InventoryUser
17- Category Wise Customer	33- Order 21- Sub Category 11- Product Category	Customer
		CustomerName
		CustomerPhone
22- Product Category Details	11- Product Category	ProductCategory
23- Random Customer	33- Order 21- Sub Category	Customer
		CustomerName
		CustomerPhone
26- Sub Category Details	21- Sub Category	SubCategory
28- Customer Info	7- Customer 9- Customer Name	Customer
		CustomerName
		CustomerPhone
30- details Customer	7- Customer 9- Customer Name 10- Customer Phone	Customer
		CustomerName
		CustomerPhone
31- VIP Customers	7- Customer 9- Customer Name 10- Customer Phone 33- Order	Customer
		CustomerName
		CustomerPhone
34- Order Details	33- Order 7- Customer	Orders
36- Customer Order Details	7- Customer 9- Customer Name 10- Customer Phone 33- Order	Orders
		Customer
		CustomerName
		CustomerPhone
40- Old Customers	33- Order 7- Customer	Customer
		CustomerName
		CustomerPhone
42- Product View	21- Sub Category	ProductCategory
		SubCategory

Table Name: 13- Inventory User

The screenshot shows a web application interface for an 'Inventory Management System with POS'. The browser address bar indicates the URL is `apex.oracle.com/jsu/apex/f?p=inventory-management:13232:inventory-user:::107819925015541`. The page title is 'Inventory User'. On the left, a dark sidebar contains a menu with items: Home, Inventory User (selected), Inventory User Details, Non Admin Information, Customer, Product Category, Order, and Debit and Credit Information. The main content area features a form titled 'Inventory User' with the following fields: Name, Email, Phone, Address, Date of Birth (with a calendar icon), Role (a dropdown menu), User Activated (a dropdown menu), and Password. At the bottom of the form are 'Cancel' and 'Create' buttons. The top navigation bar includes the system name and a user profile icon labeled 'admin'.

Table Name: 7- Customer

The screenshot shows the same web application interface, but with the 'Customer' form selected in the sidebar. The browser address bar is the same. The page title is 'Customer'. The sidebar menu is expanded to show: Home, Inventory User, Customer (selected), Customer Name, Customer Phone, Customer Details, VIP Customers, Old Customers, and Category Wise Customer. The main content area features a form titled 'Customer' with the following fields: Customer ID, Membership Date (with a calendar icon), and Address. At the bottom of the form are 'Cancel' and 'Create' buttons. The top navigation bar is identical to the previous screenshot.

9- Customer Name

The screenshot shows the 'Customer Name' form within the 'Inventory Management System with POS'. The left sidebar contains a navigation menu with options: Home, Inventory User, Customer (expanded), Customer Name, Customer Phone, Customer Details, VIP Customers, Old Customers, Category Wise Customer, Product Category, Order, and Debit and Credit Information. The main content area is titled 'Customer \ Customer Name'. It features a form with the following fields: 'Customer ID', 'Firstname', and 'Lastname'. Below these fields are 'Cancel' and 'Create' buttons. The top of the page shows a browser address bar with various tabs and a user profile 'admin'.

Table Name: 10- Customer Phone

The screenshot shows the 'Customer Phone' form within the 'Inventory Management System with POS'. The left sidebar contains a navigation menu with options: Home, Inventory User, Customer (expanded), Customer Name, Customer Phone, Customer Details, VIP Customers, Old Customers, Category Wise Customer, Product Category, Order, and Debit and Credit Information. The main content area is titled 'Customer \ Customer Phone'. It features a form with the following fields: 'Customer ID' and 'Phone Number'. Below these fields are 'Cancel' and 'Create' buttons. The top of the page shows a browser address bar with various tabs and a user profile 'admin'. The footer of the page indicates 'Release 1.0'.

Table Name: 11- Product Category

The screenshot shows the 'Product Category' form within the 'Inventory Management System with POS'. The left sidebar contains a menu with items: Home, Inventory User, Customer, Product Category (selected), Product Category Details, Sub Category, Product View, Order, and Debit and Credit Information. The main content area is titled 'Product Category' and contains a form with the following fields: 'Category ID' (text input), 'C Name' (text input with a red asterisk indicating a required field), and a 'Cancel' button. A blue 'Create' button is located at the bottom right of the form. The footer of the page indicates 'Release 1.0'.

Table Name: 21- Sub Category

The screenshot shows the 'Sub Category' form within the 'Inventory Management System with POS'. The left sidebar contains a menu with items: Home, Inventory User, Customer, Product Category, Product Category Details, Sub Category (selected), Sub Category Details, Product View, Order, and Debit and Credit Information. The main content area is titled 'Sub Category' and contains a form with the following fields: 'Sub Category ID' (text input), 'Category Id' (dropdown menu), 'Product Name' (text input), 'Buying Price' (text input), 'Selling Price' (text input), and 'Stock' (text input with a red asterisk indicating a required field). There are 'Cancel' and 'Create' buttons at the bottom of the form. The footer of the page indicates 'Release 1.0'.

Table Name: 33- Order

The screenshot shows a web application interface for an 'Inventory Management System with POS'. On the left is a dark sidebar with navigation links: Home, Inventory User, Customer, Product Category, Order (selected), Order Details, Customer Order Details, Random Customer, and Debit and Credit Information. The main content area is titled 'Order' and contains a form with the following fields: 'Order ID' (text input), 'Subcategory/product Id' (dropdown menu), 'Product Amount' (text input), 'Customer Id' (dropdown menu), 'Order Quantity' (text input), and 'Order Date' (date picker). At the bottom of the form are two buttons: 'Cancel' and 'Create'.

5. Reports based on Multi-Table and Aggregate Queries

Page Number and Name	Query Type	Report description
2- Details Customer Information	Multi-table	This table shows the details information about customer which we comes from customer, customer-Name and phone number table
4- Non Admin Information	Nested Subquery	If User is not an admin then he cannot get some confidential access. This is a nested query.
12- Debit and Credit Information	Multi-table and Aggregate	By analysis the order table this view is works it shows the revenue total cost and total profit.
14- Inventory User Details	Normal Query	This is the simple view for showing Inventory user details
17- Category Wise Customer	Multi-table	It shows the category wise customer details, for testing out default category is Grocery
22- Product Category Details	Multi-table	Product category details view shows the product category and it's id

Page Number and Name	Query Type	Report description
2- Details Customer Information	Multi-table	This table shows the details information about customer which we comes from customer, customer-Name and phone number table
4- Non Admin Information	Nested Subquery	If User is not an admin then he cannot get some confidential access. This is a nested query.
23- Random Customer	Multi-table	Non registered customer are treated as random customer
26- Sub Category Details	Single-table	It shows the Product List and it's information
28- Customer Info	Multi-table	Shows full customer Information
31- VIP Customers	Multi-table and Aggregate	If customer's purchase history is grater then average customer purchase amount then the customer starred as a VIP customer
34- Order Details	Multi-table	Its shows the order history of successfully created order
36- Customer Order Details	Multi-table	Full order information shows in this view
40- Old Customers	Multi-table	Customers who registered 1 year ago are shows in this view
42- Product View	Multi-table	It shows Information about product

14- Inventory User Details

Inventory Management System with POS									
Inventory User \									
Inventory User Details									
<input type="text"/> Go Actions Create									
	ID	Name	Email	Phone	Address	Dob	Role	User Activated	Password
	2	Test	testing	1234	abcd	6/5/2024	user	1	1234
	1	Sheikh Sarafat Hossain	sarafat@gmail.com	01746043343	UK		user	1	11222
	3	Rafi	admin	01746043343	UK		admin	1	1234
1 - 3									

View: 4- Non Admin Information

Inventory Management System with POS

admin

Home

Inventory User

Inventory User Details

Non Admin Information

Customer

Product Category

Order

Debit and Credit Information

Inventory User \

Non Admin Information

Q

Go

Actions

ID	Name	Email	Phone	Address	Dob	Role	User Activated	Password
2	Test	testing	1234	abcd	6/5/2024	user	1	1234
1	Sheikh Sarafat Hossain	sarafat@gmail.com	01746843343	UK		user	1	11222

1 - 2

Release 1.0

View: 2- Details Customer Information

Inventory Management System with POS

admin

Home

Inventory User

Customer

Customer Name

Customer Phone

Customer Details

Details Customer Information

VIP Customers

Old Customers

Category Wise Customer

Product Category

Order

Debit and Credit Information

Customer \ Customer Details \

Details Customer Information

Q

Go

Actions






Customer Id	Firstname	Lastname	Customer Address	Phone	Membershipdate
502	Shakib Ali	Hasan	Magura	017777777	6/1/2024
311	Saleh	Rafi	Dhaka Bangladesh	01773796688	6/5/2024
1	Sheikh Sarafat	Hossain	Hetal Market, Uttarkhan, Dhaka-1230	01147400849	5/31/2024
2	Rija Parveen	Raye	Teltola, Khilgaon, Dhaka-1219	01247400849	5/31/2024
3	Saleh	Rafi	Aftab Nagar, Rampura, Dhaka-1218	01347400849	5/31/2024
4	Wasibul Rahat	Bani	Banastree, Rampura, Dhaka-1218	01447400849	5/31/2024

1 - 6

View: 31- VIP Customers

Customer \						
VIP Customers						
<div><div>Q</div><div>Go</div><div>Actions</div></div>						
Order Id	Customer Id	Subcategory/Product Id	Product Amount	Order Quantity	Total Amount	Order Date
2	2	101	80	20	1600	6/1/2024
						1 - 1

View: 22- Product Category Details

Inventory Management System with POS			admin		
Product Category \			Product Category Details		
<div><div>Q</div><div>Go</div><div>Actions</div></div>			<div>Create</div>		
	Category ID	Category Name			
	1	Grocery			
	2	Baby Care			
	3	Stationery			
	4	Cosmetics			
	5	Pet Care			
					1 - 5

View : 26- Sub Category Details

The screenshot displays the 'Sub Category Details' view. The sidebar on the left contains the following navigation items: Home, Inventory User, Customer, Product Category (expanded), Product Category Details, Sub Category (selected), Sub Category Details, Product View, Order, and Debit and Credit Information. The main content area has a breadcrumb trail 'Product Category \ Sub Category \', a title 'Sub Category Details', and a search bar. Below the search bar is a table with the following data:

	Sub Category ID	Category ID	Product Name	Buying Price	Selling Price	Stock
	101	Grocery	Rice	70	80	100
	102	Grocery	Oil	100	120	0
	103	Grocery	Salt	30	40	200
	104	Grocery	Pulse	50	55	2
	301	Stationery	Pen	5	10	35
	401	Cosmetics	Lipstick	300	500	2
	501	Pet Care	Cat Food	800	1000	7

The table has a 'Create' button in the top right corner and a pagination indicator '1 - 7' at the bottom right.

View: 42- Product View

The screenshot displays the 'Product View'. The sidebar on the left contains the following navigation items: Home, Inventory User, Customer, Product Category (expanded), Product Category Details, Sub Category, Product View (selected), Order, and Debit and Credit Information. The main content area has a breadcrumb trail 'Product Category \', a title 'Product View', and a search bar. Below the search bar is a table with the following data:

Category Id	Category Name	Sub Category/Product Id	Sub Category/Product Name	Buying Price	Selling Price	Stock
1	Grocery	101	Rice	70	80	100
1	Grocery	102	Oil	100	120	0
1	Grocery	103	Salt	30	40	200
1	Grocery	104	Pulse	50	55	2
3	Stationery	301	Pen	5	10	35
4	Cosmetics	401	Lipstick	300	500	2
5	Pet Care	501	Cat Food	800	1000	7
2	Baby Care					

The table has a pagination indicator '1 - 8' at the bottom right.

View: 34- Order Details

Inventory Management System with POS							
Order \							
Order Details							
<div> <input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/> <input type="button" value="Create"/> </div>							
Order Id	Customer Id	Subcategory/Product Id	Product Amount	Order Quantity	Totalamount	Order Date	
1	1	102	120	2	240	6/12/2024	
2	2	101	80	20	1600	6/1/2024	
							1 - 2

View: 36- Customer Order Details

Inventory Management System with POS										
Order \										
Customer Order Details										
<div> <input type="text"/> <input type="button" value="Go"/> <input type="button" value="Actions"/> </div>										
Order Id	Customer Id	Firstname	Lastname	Customer Address	Sub Category/Product Id	Sub Category/Product Name	Order Quantity	Product Amount	Total Amount	Order Date
123	311	Saleh	Rafi	Dhaka Bangladesh	301	Pen	2	10	20	6/19/2024
1	1	Sheikh Sarafat	Hossain	Hetal Market, Uttarkhan, Dhaka-1220	102	Oil	2	120	240	6/12/2024
2	2	Rijia Parveen	Raya	Tatola, Khilgaon, Dhaka-1219	101	Rice	20	80	1600	6/1/2024
										1 - 3

View: 23- Random Customer

The screenshot displays the 'Random Customer' view within the 'Inventory Management System with POS'. The sidebar on the left contains the following navigation items: Home, Inventory User, Customer, Product Category, Order, Order Details, Customer Order Details, Random Customer (selected), and Debit and Credit Information. The main content area features a search bar with a 'Go' button and an 'Actions' dropdown. Below this is a table with the following data:

Order ID	Sub Category/Product ID	Product Amount	Customer ID	Order Quantity	Order Date
210	102	120		2	6/19/2024

The table has a pagination indicator '1 - 1' at the bottom right. The footer of the page indicates 'Release 1.0'.

View: 12- Debit and Credit Information

The screenshot displays the 'Debit and Credit Information' view within the 'Inventory Management System with POS'. The sidebar on the left contains the following navigation items: Home, Inventory User, Customer, Product Category, Order, Order Details, Customer Order Details, Random Customer, and Debit and Credit Information (selected). The main content area features a search bar with a 'Go' button and an 'Actions' dropdown. Below this is a table with the following data:

Total Revenue	Total Cost	Total Profit
1860	1610	250

The table has a pagination indicator '1 - 1' at the bottom right. The footer of the page indicates 'Release 1.0'.

6. Authorization and User Role Assignment

User Role Assignment

User name	Password	Role
admin	1234	Admin
testing	1234	User
sarafat@gmail.com	11222	User
rafi	1111	Admin

7. Concluding Remarks

We are happy to complete our project. Because it's the first time we make a complete CRUD operational project. It helps me learn a lot