# PROJECT NAME: MART MANAGEMENT SYSTEM

### **PREPARED BY:**

AREEBA TARIQ(21011519-101 AFIFA NAAZ (2011519-068)

**SUBMITTED TO:** 

**SIR ZAHID IQBAL** 

## **Description of Mart Management System:**

Mart Management System is a software application designed to streamline and automate various processes involved in managing a retail mart or store. The system helps store owners and managers efficiently handle tasks such as inventory management, product tracking, sales monitoring, customer interactions, and more. Here's a detailed description of the Mart Management System:

### **Key Features and Components:**

**Product Management:** The system allows users to add, edit, and remove products from the inventory. Each product is associated with attributes such as product name, price, category, and quantity in stock.

**Inventory Tracking:** It tracks the quantity of each product in stock. When a product is sold or received, the system automatically updates the inventory accordingly.

**Category Management**: Products are organized into categories for easier management. Categories can be created, modified, and deleted as needed.

**Order Management:** The system enables the creation and tracking of customer orders. It records order details, such as customer information, products ordered, order date, total amount, and payment method.

**Customer Management:** Customer data is stored, including their names, contact information, and purchase history. This helps in maintaining customer relationships and offering personalized services.

**Reporting and Analytics:** The system generates various reports, such as sales reports, inventory reports, and customer analytics. These reports provide insights into business performance and help in making informed decisions.

**User Authentication and Security**: Access to the system is controlled through user authentication. Different roles (e.g., admin, staff) can be assigned with varying levels of access rights to maintain data security.

**Price Management:** Store administrators can adjust product prices based on market trends, promotions, or other factors.

**Supplier Management:** Suppliers' information and product delivery schedules can be stored, allowing the system to manage product restocking seamlessly.

#### **Benefits:**

**Efficiency:** The Mart Management System streamlines various operations, reducing manual efforts and *minimizing errors*.

**Accuracy:** Automation ensures that inventory and sales data are accurate and up-to-date.

**Customer Satisfaction**: Tracking customer preferences and purchase history enables better customer service.

Data-Driven Decisions: Analytics and reports provide insights for strategic decision-making.

**Inventory Optimization:** Real-time tracking helps in avoiding overstocking or understocking situations.

Time Savings: Processes like billing, inventory updates, and report generation are expedited.

Cost Savings: Efficient inventory management prevents wastage and optimizes resources.

#### **Conclusion:**

The Mart Management System is an essential tool for retail businesses to efficiently manage their operations, enhance customer experiences, and stay competitive in the market. By automating various tasks and providing valuable insights, the system empowers store owners and managers to make informed decisions and improve overall business performance

```
create database Mart managmnt system;
use Mart_managmnt_system;
-----MART------
-----M A N A G E M E N T------
-----S Y S T E M-------
---->TABLE NAME : products
create table products(
product_id int primary key,
product_name varchar(50),
product price decimal(10,2),
category id int,
foreign key (category_id) references category(category_id));
 drop table products
 ---->DATA INSERTION THROUH PROCEDURE productrecords:
go
create procedure productrecords @product id int,@product name varchar(50),@product price
decimal(10,2),@category id int
as
begin
insert into products values(@product id,@product name,@product price,@category id)
exec productrecords 1, 'mobile', 2340.00,1
 exec productrecords 2, 'car', 25000.00,1
 exec productrecords 3, 'cup', 4.99,2
 exec productrecords 4, 'laptop', 899.00,1
 exec productrecords 5, 'watch', 149.50,1
 exec productrecords 6, 'book', 19.95,3
 exec productrecords 7, 'shoes', 69.99,4
 exec productrecords 8, 'camera', 599.00,1
 exec productrecords 9, 'chair', 49.99,2 exec productrecords 10, 'table', 199.00,2
 exec productrecords 11, 'headphones', 79.95,1
 exec productrecords 12, 'shirt', 34.50,4
 exec productrecords 13, 'guitar', 299.00,1
 exec productrecords 14, 'cookies', 39.50,6
 exec productrecords 15, 'carrot', 79.99,6
 exec productrecords 16, 'perfume', 49.95,4
 exec productrecords 17, 'lipsticks', 699.00,5
exec productrecords 18, 'jacket', 79.95,4
exec productrecords 19, 'cakes', 19.99,6
 exec productrecords 20, 'juices', 129.50,6
 exec productrecords 21, 'mirror', 34.99,2
```

```
exec productrecords 22, 'socks', 5.99,4
  exec productrecords 23, 'hat', 24.95,5
  exec productrecords 24, 'drone', 299.99,1
  exec productrecords 25, 'couch', 799.00,1
exec productrecords 26, 'wallet', 29.50,4
exec productrecords 27, 'lamp', 19.99,2
  exec productrecords 28, 'fan', 49.95,2
  exec productrecords 29, 'scarf', 14.99,5
  exec productrecords 30, 'earphones', 49.00,1
  exec productrecords 31, 'umbrella', 12.95,2
exec productrecords 31, 'rug', 59.50,2
exec productrecords 33, 'rug', 59.50,2
exec productrecords 33, 'mug', 7.99,2
exec productrecords 34, 'bicycle', 349.00,1
exec productrecords 35, 'bracelet', 39.99,5
exec productrecords 36, 'clock', 18.95,2
  exec productrecords 37, 'tablecloth', 24.99,2
 exec productrecords 38, 'rings', 5.99,5
  exec productrecords 39, 'choclates', 12.95,6
  exec productrecords 40, 'apple', 24.95,5
  select * from products;
  drop procedure productrecords;
---->TABLE NAME: category
create table category(
category id int primary key,
category name varchar(50));
drop table category
---->DATA INSERTION THRUH PROCEDURE : categoryrecords
delete from category
create procedure categoryrecords @category_id int ,@category_name varchar(50)
begin
insert into category values(@category_id,@category_name)
end;
--drop procedure categoryrecords
exec categoryrecords 1, 'electronics'
exec categoryrecords 2, 'homeitems'
exec categoryrecords 3,'stationaries'
exec categoryrecords 4, 'men wear'
exec categoryrecords 5, 'wmoen wear'
exec categoryrecords 6, 'bakery'
exec categoryrecords 7, 'fruits and vegetables'
select* from category;
drop procedure categoryrecords
---->TABLE NAME: supplier
create table supplier(
supp_id int primary key,
category_id int,
foreign key (category id) references category(category id),
supp name varchar(50),
contact person varchar(50),
contact_no int);
drop table supplier
```

```
---->DATA INSERTION THRUH PROCEDURE : supplierrecord
create procedure supplierrecord @supp id int,@category id int,@supp name
varchar(50),@contact person varchar(50),@contact no int
as
begin
insert into supplier values(@supp id,@category id,@supp name,@contact person,@contact no)
exec supplierrecord 1,1,'ali','electronics suplier',12345;
exec supplierrecord 2,5,'ahmad',' women essenstial supplier',123245;
exec supplierrecord 3,2,'hamza','homeitem supplier',3423335;
exec supplierrecord 4,6,'hizar','bakery items supplier',134234325;
exec supplierrecord 5,4,'moeez','men essentials supplier',14425;
exec supplierrecord 6,7,'ibrahim','fruit and vegetables supplier',1233445;
exec supplierrecord 7,3,'umer','stationaries supliers',1243245;
select *from supplier;
drop procedure supplierrecord
---->TABLE NAME : inventory
create table inventory(
inventory id int primary key,
product_id int,
foreign key (product_id)references product(product_id),
quantity_in_stock int,
supp id int,
foreign key (supp_id) references supplier(supp_id));
drop table inventory
create procedure inventoryrecord @inventory id int,@product id int,@quantity in stock
int,@supp id int
as
begin
insert into inventory values(@inventory_id, @product_id,@quantity_in_stock,@supp_id)
drop procedure inventoryrecord
---->DATA INSERTION THRUH PROCEDURE : inventoryrecord
exec inventoryrecord 1,1,530,1
exec inventoryrecord 2,2,550,1
exec inventoryrecord 3,3,570,2
exec inventoryrecord 4,4,590,1
exec inventoryrecord 5,5,500,1
exec inventoryrecord 6,6,500,3
exec inventoryrecord 7,7,5089,4
exec inventoryrecord 8,8,5056,1
exec inventoryrecord 9,9,5043,2
exec inventoryrecord 10,10,50,2
exec inventoryrecord 11,11,5034,1
exec inventoryrecord 12,12,504,4
exec inventoryrecord 13,13,5034,1
exec inventoryrecord 14,14,5043,6
exec inventoryrecord 15,15,5034,6
exec inventoryrecord 16,16,5034,4
exec inventoryrecord 17,17,5034,5
exec inventoryrecord 18,18,5043,4
exec inventoryrecord 19,19,5034,6
exec inventoryrecord 20,20,50343,6
```

```
exec inventoryrecord 21,21,5034,2
exec inventoryrecord 22,22,5045,4
exec inventoryrecord 23,23,505,5
exec inventoryrecord 24,24,5045,1
exec inventoryrecord 25,25,505,1
exec inventoryrecord 26,26,5054,4
exec inventoryrecord 27,27,5055,2
exec inventoryrecord 28,28,5045,2
exec inventoryrecord 29,29,505,5
exec inventoryrecord 30,30,5066,1
exec inventoryrecord 31,31,505,2
exec inventoryrecord 32,32,5034,2
exec inventoryrecord 33,33,5343,2
exec inventoryrecord 34,34,5434,1
exec inventoryrecord 35,35,543,5
exec inventoryrecord 36,36,5434,2
exec inventoryrecord 37,37,534,2
exec inventoryrecord 38,38,505,5
exec inventoryrecord 39,39,500,6
exec inventoryrecord 40,40,40,5
select * from inventory
---->TABLE NAME : customer
create table customer(
customer_id int primary key,
customer name varchar(50));
---->DATA INSERTION THRUH PROCEDURE : customerrecord
create procedure customerrecord @customer_id int, @customer_name varchar(50)
begin
insert into customer values ( @customer_id,@customer_name)
end;
exec customerrecord 1, 'Ahmed Ali'
exec customerrecord 2, 'Fatima Khan'
exec customerrecord 3, 'Hassan Raza'
exec customerrecord 4, 'Ayesha Malik'
exec customerrecord 5, 'Samiullah Farooqi'
exec customerrecord 6, 'Aisha Nadeem'
exec customerrecord 7, 'Usman Qureshi'
exec customerrecord 8, 'Sana Khan'
exec customerrecord 9, 'Ali Abbas'
exec customerrecord 10, 'Zainab Siddiqui'
exec customerrecord 11, 'Imran Khan'
exec customerrecord 12, 'Sara Aslam'
exec customerrecord 13, 'Bilal Ahmed'
exec customerrecord 14, 'Maryam Shah'
exec customerrecord 15, 'Omar Qadir'
select *from customer
---->TABLE NAME : orderss
create table orderss(
orders id int primary key,
customer id int,
foreign key (customer id) references customer(customer id),
orders_date date,
total_amount decimal(10,2),
```

```
payment_method varchar(50),
product id int
foreign key (product_id) references products(product_id));
---->DATA INSERTION THRUH PROCEDURE : ordersrecord
create procedure orders record @orders id int @customer id int @orders date
date,@total amount decimal(10,2),@payment method varchar(50),@product id int
begin
insert into orderss
values(@orders id,@customer id,@orders date,@total amount,@payment method,@product id)
exec ordersrecord 1, 1, '2023-03-02', 230.00, 'cash on delivery',1
exec ordersrecord 2, 2, '2023-03-03', 150.50, 'credit card',3
exec ordersrecord 3, 3, '2023-03-04', 75.25, 'online payment',4
exec ordersrecord 4, 4, '2023-03-05', 250.00, 'cash on delivery',6
exec ordersrecord 5, 5, '2023-03-06', 100.00, 'credit card',10
exec ordersrecord 6, 6, '2023-03-07', 45.75, 'online payment',12 exec ordersrecord 7, 7, '2023-03-08', 300.25, 'cash on delivery',11
exec ordersrecord 8, 8, '2023-03-09', 80.00, 'credit card',23
exec ordersrecord 9, 9, '2023-03-10', 120.50, 'online payment',34
exec ordersrecord 10, 10, '2023-03-11', 50.00, 'cash on delivery',29
exec ordersrecord 11, 11, '2023-03-12', 180.75, 'credit card',5
exec ordersrecord 12, 12, '2023-03-13', 90.25, 'online payment',40
exec ordersrecord 13, 13, '2023-03-14', 270.00, 'cash on delivery',21
exec ordersrecord 14, 14, '2023-03-15', 60.00, 'credit card',22
exec ordersrecord 15, 15, '2023-03-16', 30.75, 'online payment',39
select* from orderss
 drop procedure ordersrecord
 ---->TABLE NAME : employees
create table employees(
emp id int primary key,
emp name varchar(50),
emp_position varchar(60),
emp_phoneno varchar(50),
emp_email varchar(70));
drop procedure emplyoeesrecord
drop table emplyoees
---->DATA INSERTION THRUH PROCEDURE : emplyoeesrecord
create procedure emplyoeesrecord @emp_id int,@emp_name varchar(50),@emp_position
varchar(60),@emp_phoneno varchar(50), @emp_email varchar(50)
begin
insert into employees values(@emp id,@emp name,@emp position,@emp phoneno,@emp email)
end;
  exec emplyoeesrecord 1, 'Ali Khan', 'Store Manager', '0301-
1234567', 'ali.khan@example.com'
  exec emplyoeesrecord 2, 'Fatima Siddiqi', 'Cashier','0301-1234567',
'fatima.siddiqi@example.com'
```

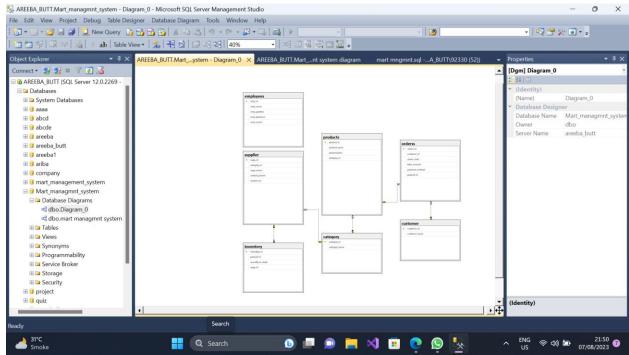
```
exec emplyoeesrecord 3, 'Ahmed Malik', 'Salesperson', '0321-
3456789', 'ahmed.malik@example.com'
 exec emplyoeesrecord 4, 'Ayesha Khan', 'Assistant Manager', '0333-
4567890', 'ayesha.khan@example.com'
 exec emplyoeesrecord 5, 'Muhammad Akram', 'Stock Keeper', '0344-
5678901', 'muhammad.akram@example.com'
 exec emplyoeesrecord 6, 'Sana Ahmed', 'Customer Service','0355-6789012',
'sana.ahmed@example.com'
 select * from employees
----- DATABASE QUERIES -----
-----show products data-----
CREATE PROCEDURE productdata
as
begin
select products.product id,products.category id,
products.product_name,products.product_price ,category_category_name,
supplier.supp_id,supplier.supp_name,supplier.contact_person,supplier.contact_no
from products inner join category
on products.category_id=category.category_id inner join supplier
on category.category id=supplier.supp id
end
exec productdata
 -----show categories of each products and no of products per category----
-----
 create procedure no_of_prodcts
 as
 select category.category_name, count(products.product_id) as no_of_products
from category inner join products on category_id=products.category_id
group by category.category_name
end
exec no_of_prodcts
 -----show categories and amount per product in each category with total
price---
create procedure productprice0
as
begin
select category.category id, category.category name,sum(products.product price) as
total price of all products
from category inner join products on
category_id=products.category_id
```

```
group by category.category_id, category.category_name
end
exec productprice0
-----show the stock of any product-----
go
create procedure checkproductstock1 @product id int
begin
select * from inventory
where product id=@product id
exec checkproductstock1 1;
exec checkproductstock1 5;
-----search books by price range-----
create procedure searchbooks @first decimal(10,2),@second decimal(10,2)
as
begin
select * from products
where product price between @first and @second
exec searchbooks 10,15;
exec searchbooks 100,200;
exec searchbooks 300,400;
exec searchbooks 500,600;
-----update the email of a emloyee without procedure-----
update employees
set emp_email='abcd@gmail.com'
where emp_id=3;
select* from employees -----(record updated)-----
-----insert a new order in the order table-----
create procedure insertorders @orders_id int,@customer_id int,
@orders date date,@total amount decimal(10,2),@payment method varchar(50)
as
begin
insert into orderss values
(@orders id,@customer id,@orders date,@total amount,@payment method)
exec insertorders 16,15,'2023-08-09',230.00,'cash_on_delivery'
select *from orderss
-----Retrieve the total amount spent by a specific customer-----
create procedure total_amounts @customer_id int
```

```
as
begin
select customer.customer_id, sum(orderss.total_amount) as total_spending
from customer inner join orderss on customer.customer_id=orderss.customer_id
where customer.customer_id=@customer_id
group by customer customer id
end
exec total_amounts 3;
exec total amounts 5;
exec total_amounts 20;
-----Retrieve all products names along with their category names-----
create procedure retrieve_products
as
begin
select products.product_id,products.product_name,category.category_name
from products inner join category on
products.category_id=category.category_id
exec retrieve_products
-----Retrieve the top N customers based on their total spending------
go
create procedure top_customer
begin
select customer.customer id,customer.customer name, sum(orderss.total amount) as
total spending
from customer inner join orderss on
customer_id=orderss.customer_id
group by customer.customer_id, customer.customer_name
order by total spending desC
end
exec top_customer
  ------Retrieve the products with low stock along with their category
names----
 go
 create procedure low stock1
 begin
 select products.product_id,products.product_name,inventory.quantity_in_stock,
 category category name
 from products inner join inventory on
 products.product id=inventory.product id inner join category
 on products.category_id=category.category_id
 where inventory.quantity_in_stock<=500</pre>
 end
 exec low stock1
 ----retreive the names of products in 'electronics' category----
```

```
create procedure products12
begin
select products.product_id,products.product_name,category_category_name
from products inner join category
on products.category id=category.category id
where category.category name='electronics'
end
exec products12
----retreive the name of the products who have not
-----been supplied to any supplier-----
create procedure prosupplier
as
begin
select products.product_id,products.product_name
from products inner join supplier on
products.product_id =supplier.product_id
where products.product_id is null
end
exec prosupplier
-----find the product name who have the highest price in all products-----
create procedure highprices3
begin
select products.product_id,products.product_name,products.product_price
from products
WHERE product_price = (SELECT MAX(product_price) FROM products);
exec highprices3
-----SHOW ALL TABLES DATA-----
go
create procedure show_all_tables_data
begin
select *from products
select* from inventory
select* from category
select* from supplier
select* from employees
select*from customer
select * from orderss
end
```

```
exec show_all_tables_data
 -----DELETE ALL TABLES DATA-----
----
 create procedure del_all_tables_data
 begin
 delete from products
 delete from inventory
 delete from supplier
 delete from category
 delete from customer
 delete from employees
 delete from orderss
 end
 exec del_all_tables_data
 -----DROP ALL TABLES -----
 CREATE PROCEDURE Drop_all_tables
 AS
 BEGIN
 DROP TABLE products
 DROP TABLE category
 DROP TABLE supplier
 DROP TABLE inventory
 DROP TABLE employees
 DROP TABLE customer
 DROP TABLE orderss
 END;
 exec Drop_all_tables
```



All tables output :

