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CSE2004 – Database Management System

Project Report

Project Members:

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Project Title:

E-Commerce Website

For Selling & Purchasing

Submitted to:

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Contents covered in the Report: -

Abstract:

Electronic Commerce is process of doing business through computer networks. A person sitting on his chair in front of a computer can access all the facilities of the Internet to buy or sell the products. Unlike traditional commerce that is carried out physically with effort of a person to go & get products, e-commerce has made it easier for human to reduce physical work and to save time. E-Commerce which was started in early 1990's has taken a great leap in the world of computers, but the fact that has hindered the growth of e-commerce is security. Security is the challenge facing e-commerce today & there is still a lot of advancement made in the field of security. The main advantage of e-commerce over traditional commerce is the user can browse online shops, compare prices and order merchandise sitting at home on their PC.
E-Commerce refers to all forms of business activities across the internet. This can include E-tailing, B2B, intranets and extranets, online advertising, and simply online presence of any form that are used for some type of communication. E-Commerce has several advantages and disadvantages as indicated in these papers.

Keywords:

E-Commerce, Website, SQL, ER Diagram, Schema, Database, RDBMS.

Introduction:

The main purpose to a database is to store information. Have a question about a customer order? Check the database. Want to know a product price? Check the

database. By using a database, a web application can ignore the actual data and focus more on the presentation and behavior of that data. The end result is that the amount of code and logic in the web application is much smaller and easier to understand. For example, if all products have images, then the web application just needs to ask for that data — i.e., an image — and show it as a product preview. It doesn't care if there is one image, three images, or what the images actually are showing. The application just expects to get back an image URL, which it then displays.

Project Scope:

E-Commerce System Features:

a. Cart feature: Adding items to the cart
b. Payment Feature
c. Review Feature
d. Categorization of products
e. Login/Signup Profile

Literature Review:

Aspects of eCommerce are as follows:

- Business model – Who are you and who are your customers?
- Revenue model – How do you generate revenue?
- Type of website – How many retailers are selling together?
- Type of eCommerce platform – What are the characteristics of the software that runs your website?
- Business details – What do you sell and to what market?

Project Resource Requirements:

Software resource requirements:

a. Front-end

- HTML
- CSS

- JavaScript

b. Back-end

- MySQL
- PHP
- Apache Web Server

E-R Diagram: -

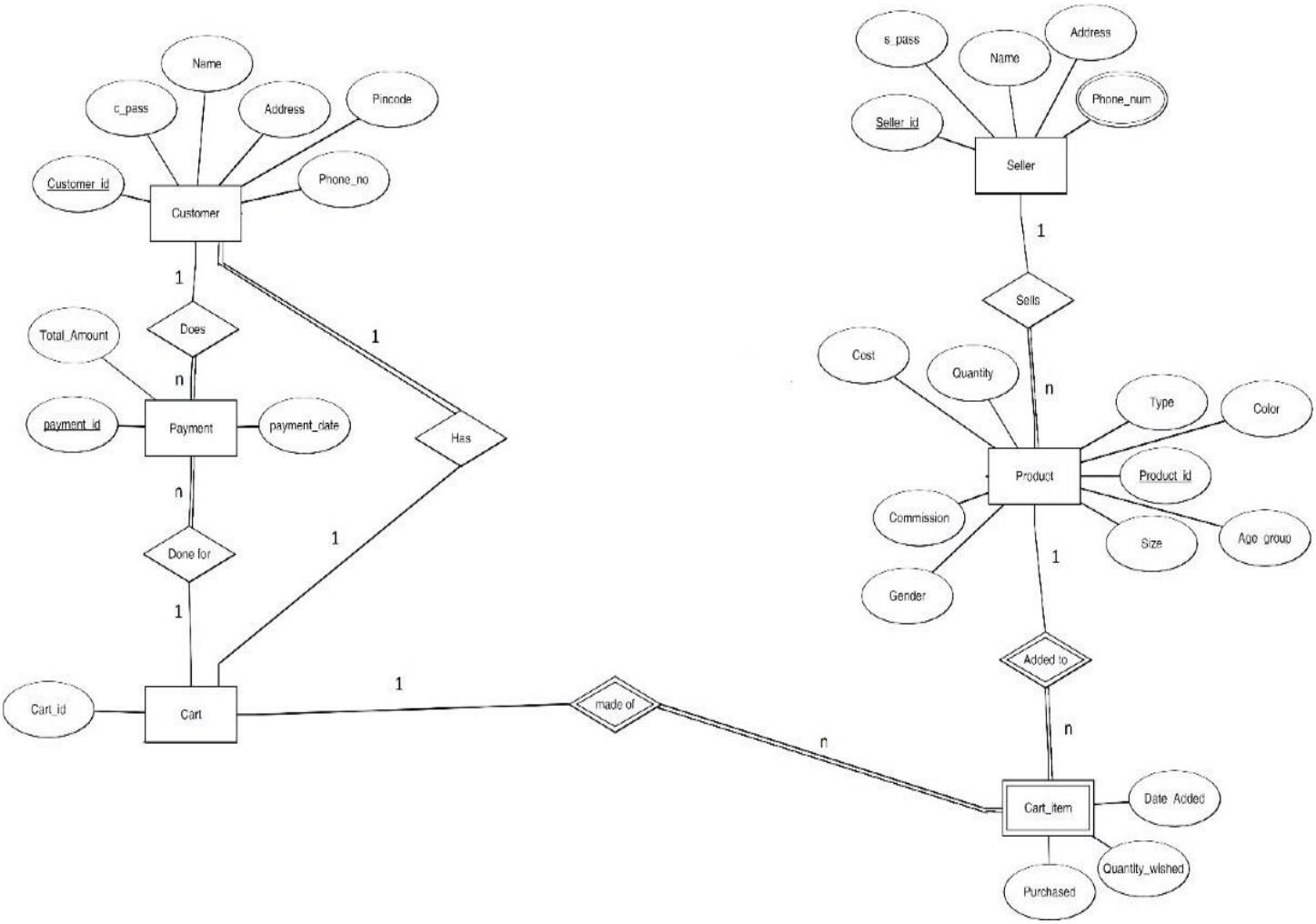
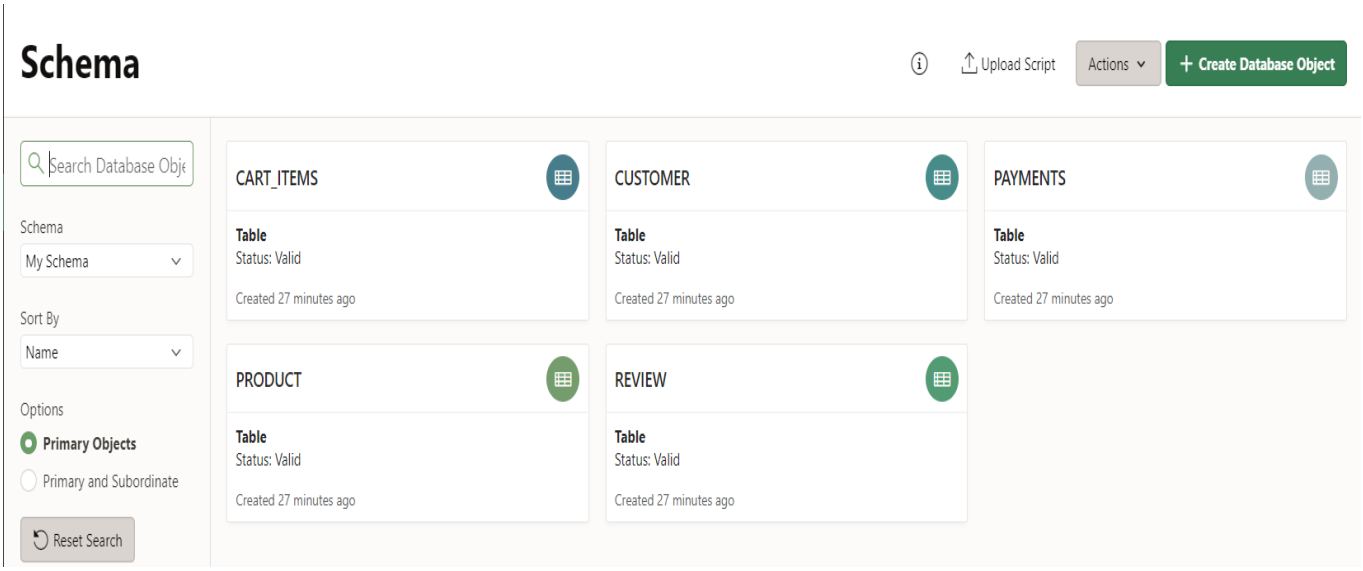


Table & Constraints:

Schema Table:



- **Product**

PRODUCT_NAME	VARCHAR2	30	
PRODUCT_MODEL	VARCHAR2	30	
PRODUCT_PRICE	NUMBER	22	6

1 - Columns

"PRODUCT_MODEL" IS NOT NULL
"PRODUCT_PRICE" IS NOT NULL

2 – Constraints

- **Review**

USERNAME	VARCHAR2	30
REVIEW	VARCHAR2	100

3 - Columns

- **Customer**

USERNAME	VARCHAR2	30
FIRST_NAME	VARCHAR2	30
LAST_NAME	VARCHAR2	30
PASSWORD	VARCHAR2	30
PHONE_NUMBER	VARCHAR2	10
EMAIL_ID	VARCHAR2	50
ADDRESS_STREET	VARCHAR2	50
ADDRESS_CITY	VARCHAR2	30
ADDRESS_STATE	VARCHAR2	30

5 - Columns

"FIRST_NAME" IS NOT NULL
"LAST_NAME" IS NOT NULL
"PASSWORD" IS NOT NULL
"PHONE_NUMBER" IS NOT NULL
"EMAIL_ID" IS NOT NULL
"ADDRESS_STREET" IS NOT NULL
"ADDRESS_CITY" IS NOT NULL
"ADDRESS_STATE" IS NOT NULL

4 - Constraints

- **Payments**

PAYMENT_ID	VARCHAR2	30	
AMOUNT	NUMBER	22	7
PAYMENT_NAME	VARCHAR2	50	
PAYMENT_CARDNUMBER	VARCHAR2	16	
PAYMENT_CARDCVV	NUMBER	22	3
PAYMENT_DATE	DATE	7	

6 – Columns

"AMOUNT" IS NOT NULL
"PAYMENT_NAME" IS NOT NULL
"PAYMENT_CARDNUMBER" IS NOT NULL
"PAYMENT_CARDCVV" IS NOT NULL
"PAYMENT_DATE" IS NOT NULL

7 – Constraints

- **Cart_items**

CART_ITEMS_ID	VARCHAR2	30
PRODUCT_NAME	VARCHAR2	30
COST	NUMBER	22
ORDER_DATE	DATE	7
DELIVER_DATE	DATE	7

9 - Columns

"PRODUCT_NAME" IS NOT NULL
"COST" IS NOT NULL
"ORDER_DATE" IS NOT NULL
"DELIVER_DATE" IS NOT NULL

8 - Constraints

Project Output:

SQL CODE

```
CREATE TABLE CUSTOMER(
username VARCHAR(30) PRIMARY KEY,
First_name VARCHAR(30) NOT NULL,
Last_name VARCHAR(30) NOT NULL,
password VARCHAR(30) NOT NULL,
Phone_Number VARCHAR(10) NOT NULL,
Email_id VARCHAR(50) NOT NULL,
address_street VARCHAR(50) NOT NULL,
address_city VARCHAR(30) NOT NULL,
address_state VARCHAR(30) NOT NULL
);
CREATE TABLE product(
Product_name VARCHAR(30) PRIMARY KEY,
Product_model VARCHAR(30) NOT NULL,
Product_price NUMBER(6) NOT NULL
);
CREATE TABLE Cart_items(
Cart_items_id VARCHAR(30),
```

```
Product_name VARCHAR(30) NOT NULL,
cost NUMBER(7) NOT NULL,
order_date DATE NOT NULL,
deliver_date DATE NOT NULL,
CONSTRAINT cust_cart_fk FOREIGN KEY(Cart_items_id) REFERENCES CUSTOMER(username)
);
CREATE TABLE payments(
Payment_id VARCHAR(30),
amount NUMBER(7) NOT NULL,
Payment_name VARCHAR(50) NOT NULL,
Payment_cardnumber VARCHAR(16) NOT NULL,
Payment_cardcvv NUMBER(3) NOT NULL,
Payment_date DATE NOT NULL,
CONSTRAINT cust_pay_fk FOREIGN KEY(Payment_id) REFERENCES CUSTOMER(username)
);
CREATE TABLE Review(
username VARCHAR(30),
review VARCHAR(100),
CONSTRAINT use_use_fk FOREIGN KEY(username) REFERENCES CUSTOMER(username)
);
INSERT INTO product VALUES('Iphone 7','Mobile',23000);
INSERT INTO product VALUES('Samsung Galaxy M20','Mobile',12500);
INSERT INTO product VALUES('Oppo-k3','Mobile',19000);
INSERT INTO product VALUES('Xiaomi Redmi 7','Mobile',8000);
INSERT INTO product VALUES('HP','Laptop',43000);
INSERT INTO product VALUES('Lenovo','Laptop',40000);
INSERT INTO product VALUES('Smart Value Kitchen','Utensils',350);
INSERT INTO product VALUES('Bamboo','Utensils',2000);
```

```
INSERT INTO product VALUES('Dining Table','Furniture',30000);

INSERT INTO product VALUES('Bed','Furniture',60000);

INSERT INTO product VALUES('Lays','Packed food',20);

INSERT INTO product VALUES('Aloo Bhujia','Packed food',50);
```

PHP CODE
//For Parameters

```
<b>First Name:<b><input type="text" name="firstname" pattern="[A-Za-z]+" required>
Last Name:<b><input type="text" name="lastname" pattern="[A-Za-z]+" required>
Username:<b><input type="text" name="Username" pattern="[A-Za-z0-9]+" required>
Password:<b><input type="password" name="password" pattern="(?=.*\d)(?=.*[a-z])(?=.*[A-Z]).{8,}"
title="Must contain at least one number and one uppercase and lowercase letter, and at least 8 or more
characters"required>
Phone No:<b><input type="tel" name="phone" pattern="[0-9]{10}" required>
Email id:<b><input type="email" name="email" required>
House Number and Street Name:<br><input type="text" name="address_street" required>
City:<br><input type="text" name="address_city" pattern="[A-Za-z\s]+" required>
State:<br><input type="text" name="address_state" pattern="[A-Za-z\s]+" required>
```

//REViEW

```
<?php
include "connect.php"; session_start();
if(isset($_POST['submit'])){
        $use=$_SESSION['Username'];
        $comment=$_POST['comment'];
        $query="insert into Review(username,review) values('$use','$comment')";
if(mysqli_query($db,$query))
        {
                echo "<div class='jumbotron'>";
                echo "<h2>Review is inserted successfully</h2>";
        }
        else
        {
                echo "Error in insertion<br>”     }}
else
{         echo "Error in Submition<br>";
        echo "</div>";
}.
?>
```

//ORDER HISTORY

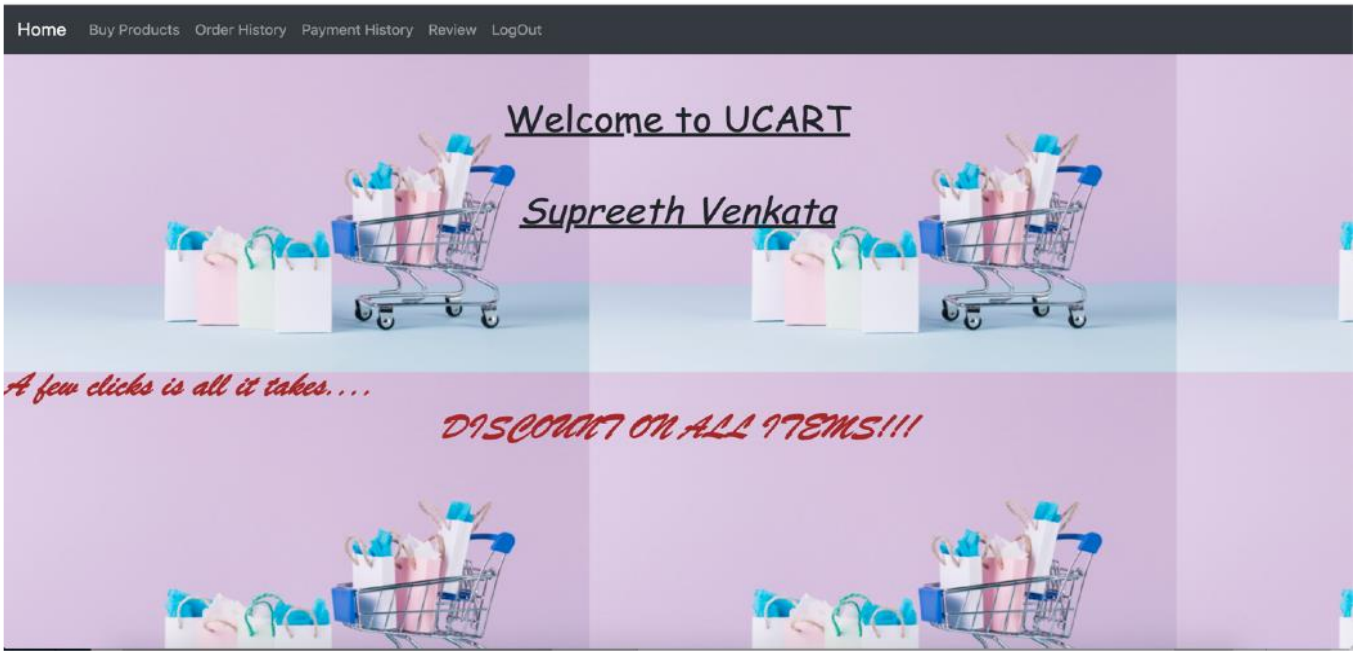
```
<?php
include "connect.php";
echo "<h1><center><u><br>Order History</u></h1><br><br>"; session_start();
$use=$_SESSION['Username'];
```

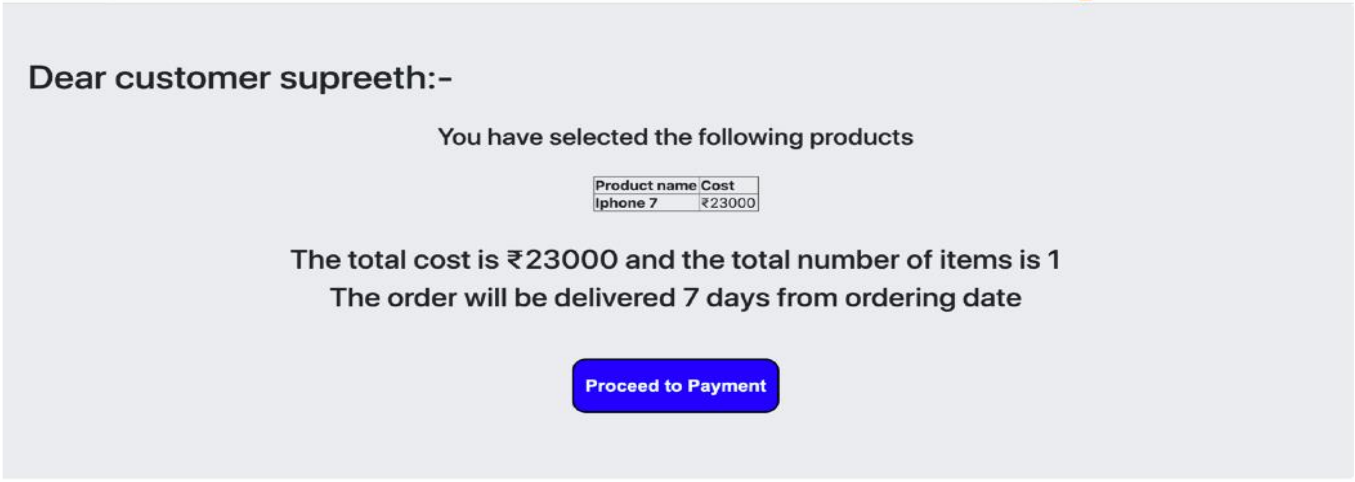
```
$query="select * from Cart_items where Cart_items_id='$use'";
$query_run = mysqli_query($db,$query); $num
= mysqli_num_rows($query_run); if($num>0){
        echo "<center><table border='1'>";
 echo   "<tr>";      echo   "<th>Product
name</th>";    echo   "<th>Cost</th>";
echo   "<th>Order   Date</th>";    echo
"<th>Deliver Date</th>"; echo  "</tr>";
        while($row = mysqli_fetch_array($query_run))
        {
                echo "<tr>";
                echo
"<th>".($row['Product_name'])."</th>";
echo "<td>₹".($row['cost'])."</td>";                echo
"<td>".($row['order_date'])."</td>";
                echo "<td>".($row['deliver_date'])."</td>";
                echo  "</tr>";
        }
        echo "</table>";
        ?>
```

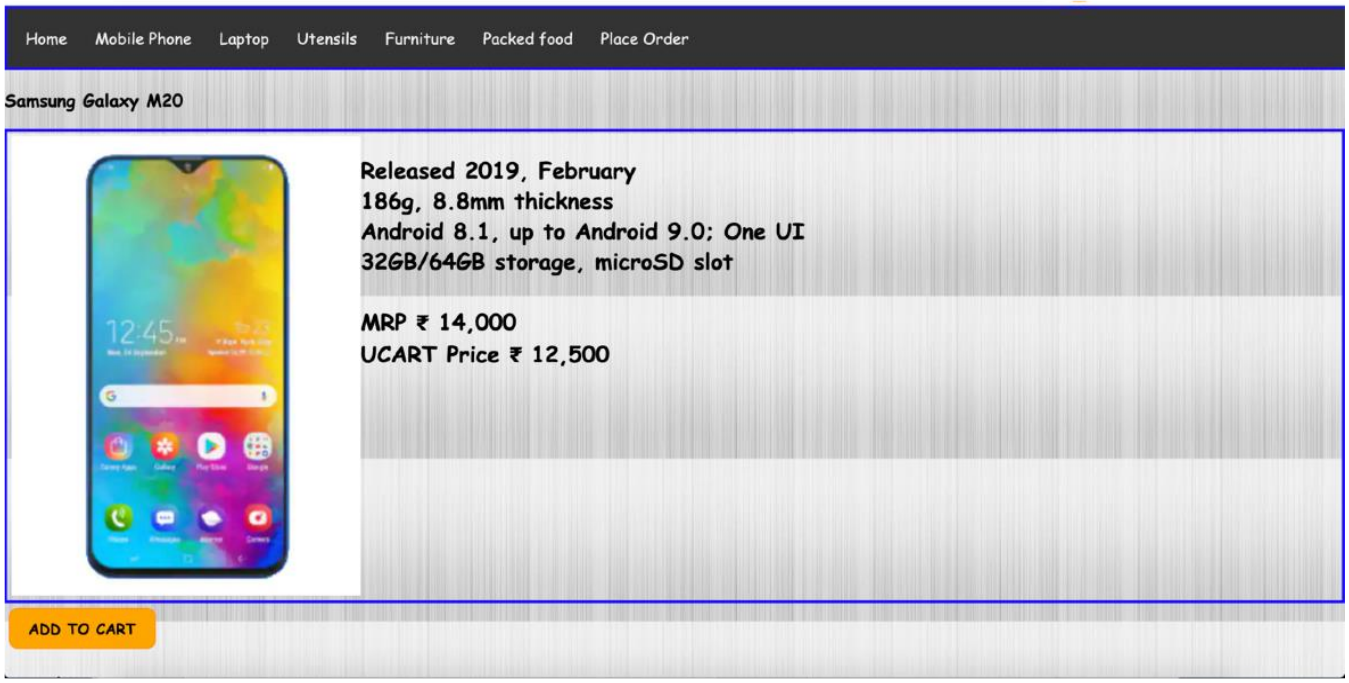
//PRODUCT

```
foreach($_POST["product"] as $product)
                {.      echo “<tr>";  $count++;  $query="select Product_price from product where
Product_name=‘$product'";    $query_run = mysqli_query($db,$query);
                        $row = mysqli_fetch_array($query_run);
$db_Product_price=$row['Product_price'];                        echo
"<th>$product</th> <td>₹$db_Product_price</td>";
                        $db_Product_price=(int)$db_Product_price;
                        $cost+=$db_Product_price;
                        $order=date("Y-m-d");
                        $d=strtotime("+7 Days");
                        $deli=date("Y-m-d",$d);
                        $query="insert into
Cart_items(Cart_items_id,Product_name,cost,order_date,deliver_date)
values('$use','$product','$db_Product_price','$order','$deli')";
                        mysqli_query($db,$query);
$_SESSION['cost']=$cost;
                        $_SESSION['order']=$order;
                        $_SESSION[‘deli']=$deli; }}
```

Screenshots –







Conclusion & Future Scope:

This project was done on a small scale with minimal user interface.

The project can be improved with better Front-end user interface and connection from real dealers can be added to the e-commerce website.

Features like Recommendations can be added and the items can be divided into different tabs instead of a single page view.