Online Shopping System

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PURPOSE

Online web stores, such as Amazon and eBay, have gained huge popularity over the years because one can buy almost everything at these stores. These web stores also give an opportunity to a lot of small-scale companies and manufactures to reach the global market and to directly sell their products to people without involving different other companies or middlemen before their product can reach the shelves of a physical store. Further, instead of using the available platforms, manufacturers can bring a concept of designing their own web store to sell their products directly to the masses. The objective of this project is to develop a general purpose e-commerce store whereany products can be bought from the comfort of home through the Internet. However,for implementation purposes, this paper will deal with an online Shopping system.
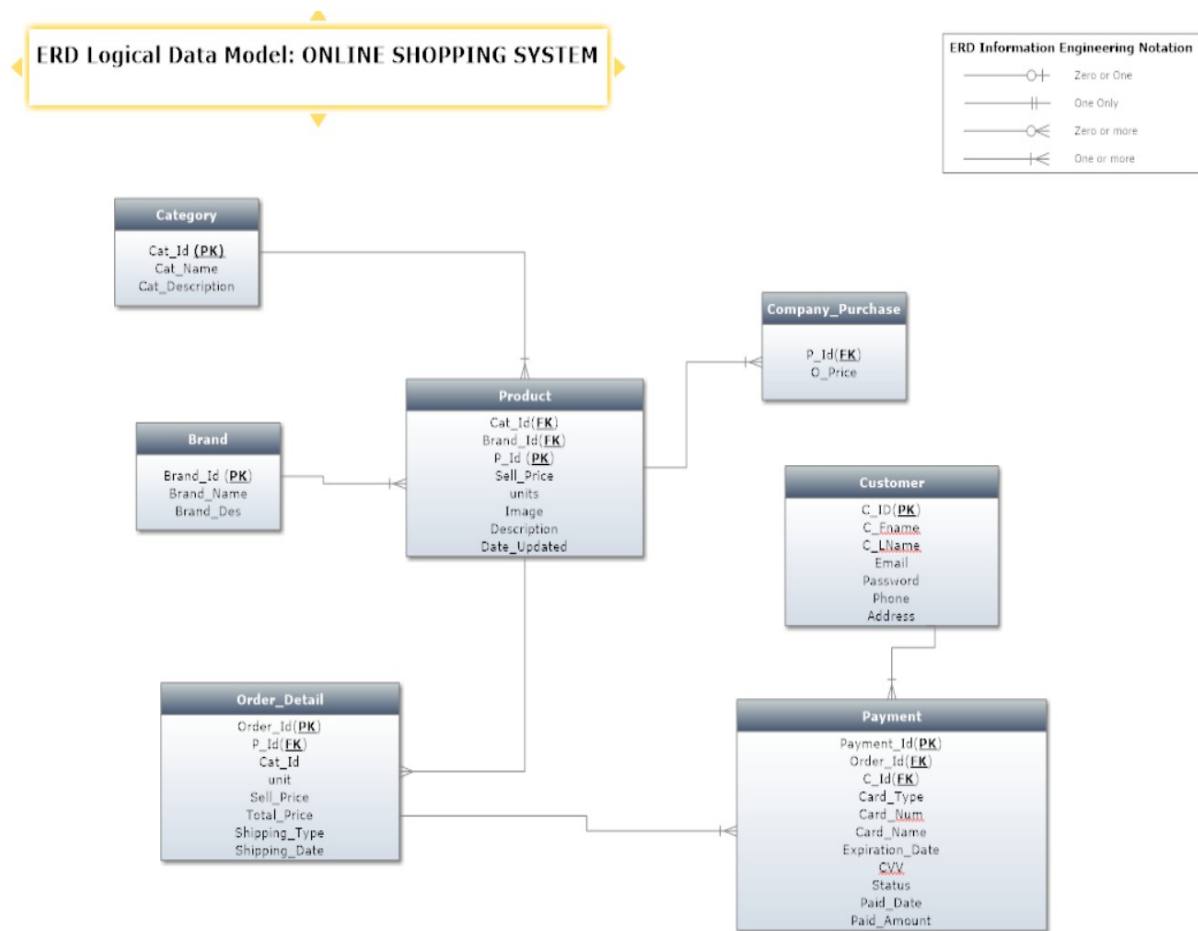
INTRODUCTION

This paper presents the design of a database system for a online Electronics device store using ORACLE database that performs search functions for selected products and different types of tables.It will store various products data as well as users order details to run shopping syatem from admin side and user side with user login.

NAME OF TABLES

1. Customer_login_tbl

2. Brand_tbl

3. Category

4. Products

5. Order_Detail

6. Sales_tbl

7. Payment_tbl

ER DIAGRAM

ERD Logical Data Model: ONLINE SHOPPING SYSTEM

ERD Information Engineering Notation

─O┼	Zero or One
─╫	One Only
─O<	Zero or more
─┼<	One or more

Category

Cat_Id (**PK**)
Cat_Name
Cat_Description

Company_Purchase

P_Id(**FK**)
O_Price

Brand

Brand_Id (**PK**)
Brand_Name
Brand_Des

Product

Cat_Id(**FK**)
Brand_Id(**FK**)
P_Id (**PK**)
Sell_Price
units
Image
Description
Date_Updated

Customer

C_ID(**PK**)
C_Fname
C_LName
Email
Password
Phone
Address

Order_Detail

Order_Id(**PK**)
P_Id(**FK**)
Cat_Id
unit
Sell_Price
Total_Price
Shipping_Type
Shipping_Date

Payment

Payment_Id(**PK**)
Order_Id(**FK**)
C_Id(**FK**)
Card_Type
Card_Num
Card_Name
Expiration_Date
CVV
Status
Paid_Date
Paid_Amount

SCREENSHOTS OF CREATE TABLE AND INSERTED DATA

Create Customer Table

```
SQL> CREATE TABLE Customer
  2  (
  3  C_Id varchar(10) NOT NULL PRIMARY KEY,
  4  C_Fname varchar(10) NOT NULL,
  5  c_Lname varchar(10) NOT NULL,
  6  Email varchar(300) NOT NULL,
  7  password varchar(10) NOT NULL,
  8  Phone int NOT NULL,
  9  Address varchar(100) NOT NULL
 10  )
 11  ;

Table created.
```

```
INSERT INTO Customer
VALUES ('1000','Sapna','Makadia','sapana.makadia@gmail.com','s4909','5513587862','jersey city');
INSERT INTO Customer
VALUES ('1001','Rushil','Patel','rushil.patel@gmail.com','r143','5513588036','jersey city');
INSERT INTO Customer
VALUES ('1002','Jay','Gosai','jay.g@yahoo.com','jg556','2015622589','edison');
INSERT INTO Customer
VALUES ('1003','Utsav','Thakkar','utsav255@gmail.com','4853','5545236574','union city');
INSERT INTO Customer
VALUES ('1004','Hiral','Rudani','hiral.rudani@gmail.com','h210','5513218526','jersey city');
INSERT INTO Customer
VALUES ('1005','Ekta','Dalsaniya','eku455@gmail.com','45563','8015321468','newark');
INSERT INTO Customer
VALUES ('1006','Himil','Patel','patelhm@yahoo.com','214hmz09','5519852147','jersey city');
INSERT INTO Customer
VALUES ('1007','Dhruv','Makadia','dhruv.makadia@gmail.com','dh241785','3571582468','hoboken');
INSERT INTO Customer
VALUES ('1008','John','nishy','john.ny@gmail.com','151jh421','6852858541','secausus');
INSERT INTO Customer
VALUES ('1009','Michel','filler','micky@gmail.com','ds2685df','5513525282','westwood');
```

Create Category Table

```
SQL> cr^?^?
unknown command "" - rest of line ignored.
SQL> c^?
Invalid change string.
SQL> CREATE TABLE Category
  2  (
  3  Cat_Id varchar(10) NOT NULL,
  4  Cat_Name varchar(30) NOT NULL,
  5  Cat_Dec varchar(100)
  6  )
  7  ;

Table created.
```

```
INSERT INTO Category
VALUES ('11220','Mobile','List of all Mobiles');
INSERT INTO Category
VALUES ('11221','Laptops','List of all Laptops');
INSERT INTO Category
VALUES ('11222','video game','List of all video games');
INSERT INTO Category
VALUES ('11223','TV','List of all TV');
INSERT INTO Category
VALUES ('11224','Camera','List of all Camera');
INSERT INTO Category
VALUES ('11225','Tablets','List of all Tablets');
INSERT INTO Category
VALUES ('11226','Fitness watch','List of all Fitness watch');
INSERT INTO Category
VALUES ('11227','Bluetooth & wireless speakers','List of all Bluetooth & wireless speakers');
INSERT INTO Category
VALUES ('11228','GPS','List of all GPS');
```

Create Brand Table

```
SQL> CREATE TABLE Brand
  2  (
  3  Brand_Id varchar(10) NOT NULL PRIMARY KEY,
  4  Brand_Name varchar(20) NOT NULL,
  5  Brand_Dec varchar(500)
  6  )
  7  ;

Table created.
```

```
INSERT INTO Brand
VALUES ('2200','Apple','Apple is a Largest Selling Company for their Very Special Product iPhones')
;
INSERT INTO Brand
VALUES ('2201','Samsung','Samsung has been dedicated to making a better world through diverse businesses that today span advanced
;
INSERT INTO Brand
VALUES ('2202','HTC','HTC brings brilliance to life through leading innovation in smart mobile device and experience design. Begi
;
INSERT INTO Brand
VALUES ('2203','LG','LG is a global leader and technology innovator in consumer electronics, mobile communications and home appli
;
INSERT INTO Brand
VALUES ('2204','Sony','Sony has introduced a stream of revolutionary products, including the transistor radio, the Trinitron tele
;
INSERT INTO Brand
VALUES ('2205','Microsoft','one of the largest, most respected computer science research organizations in the world.')
;
INSERT INTO Brand
VALUES ('2206','Dell','The largest direct-sale computer vendor in the world, Dell Computer Corporation sells desktop personal com
;
INSERT INTO Brand
VALUES ('2207','Lenovo',' Lenovo is a US$34 billion personal technology company and the worlds largest PC vendor.')
;
INSERT INTO Brand
VALUES ('2208','HP','Our vision is to create technology that makes life better for everyone, everywhere – every person, every org
;
INSERT INTO Brand
VALUES ('2209','Xbox','The all-in-one entertainment system. Where the best games, multiplayer, and your favorite movies, music, s
```

Create product Table

```
SQL> CREATE TABLE Products
  2  (
  3  Cat_Id varchar(10) NOT NULL,
  4  Brand_Id varchar(10) NOT NULL,
  5  Product_Id varchar(10) NOT NULL PRIMARY KEY,
  6  Price float NOT NULL,
  7  Unit int,
  8  Image blob,
  9  DEscription varchar(500),
 10  Date_Updated date,
 11  FOREIGN KEY (Cat_Id) REFERENCES Category(Cat_Id),
 12  FOREIGN KEY (Brand_Id) REFERENCES Brand(Brand_Id)
 13  )
 14  ;

Table created.
```

```
INSERT INTO Product
VALUES('11220','2200','4402','350','4','','Ipods',TO_DATE('12122015','mmddyyyy'));
INSERT INTO Product
VALUES('11220','2201','4403','450','13','','Galaxy Phones',TO_DATE('10122015','mmddyyyy'));
INSERT INTO Product
VALUES('11220','2202','4404','78','10','','HTC',TO_DATE('08122015','mmddyyyy'));
INSERT INTO Product
VALUES('11221','2200','4405','800','7','','MacBook',TO_DATE('07122015','mmddyyyy'));
INSERT INTO Product
VALUES('11223','2201','4406','1200','6','','Samsung TV',TO_DATE('07112015','mmddyyyy'));
INSERT INTO Product
VALUES('11225','2201','4407','120','3','','Samsung Tablets',TO_DATE('12122015','mmddyyyy'));
INSERT INTO Product
VALUES('11224','2204','4408','500','10','','Sony Camera',TO_DATE('11112015','mmddyyyy'));
INSERT INTO Product
VALUES('11220','2206','4409','190','15','','Dell Phones',TO_DATE('10102015','mmddyyyy'));
INSERT INTO Product
VALUES('11225','2200','4410','600','18','','Ipads',TO_DATE('10082015','mmddyyyy'));
INSERT INTO Product
VALUES('11227','2201','4411','1189.99','17','','Lenovo Laptops',TO_DATE('05122015','mmddyyyy'));
INSERT INTO Product
VALUES('11221','2205','4412','289.99','8','','Microsoft Surface',TO_DATE('12092015','mmddyyyy'));
INSERT INTO Product
VALUES('11226','2205','4413','119.99','25','','Microsoft Fitness Belt',TO_DATE('09092015','mmddyyyy'));
```

Create Order_detail Table

```
SQL> CREATE TABLE Orders
  2  (
  3  Order_Id varchar(10) NOT NULL PRIMARY KEY,
  4  Product_Id varchar(10),
  5  C_Id varchar(10),
  6  Qty int,
  7  Price float NOT NULL,
  8  Total_Price float NOT NULL,
  9  Shipping_Date date,
 10  FOREIGN KEY (Product_Id) REFERENCES Products(Product_Id),
 11  FOREIGN KEY (C_Id) REFERENCES Customer(C_Id)
 12  )
 13  ;

Table created.
```

```
INSERT INTO Order_Detail
VALUES('9900','4400','1001','1','89.99','89.99','CarryOut',To_DATE('12152015','mmddyyyy'));

INSERT INTO Order_Detail
VALUES('9901','4401','1002','1','99.99','99.99','Delivery',To_DATE('12182015','mmddyyyy'));

INSERT INTO Order_Detail
VALUES('9902','4402','1003','2','350','700','CarryOut',To_DATE('12202015','mmddyyyy'));

INSERT INTO Order_Detail
VALUES('9903','4403','1004','1','450','450','Delivery',To_DATE('12252015','mmddyyyy'));

INSERT INTO Order_Detail
VALUES('9904','4404','1005','3','78','234','CarryOut',To_DATE('01012015','mmddyyyy'));
```

Create Payment Table

```
SQL> create table Payment
  2  (
  3  C_Id varchar(10) NOT NULL,Payment_Id varchar(20) NOT NULL,Card_Type varchar(10) NOT NULL,Card_Num int NOT NULL,Card_Name varchar(20) NOT NULL,Exp_Date date NOT NUL
L,CVV int NOT NULL,
  4  Status varchar(10) NOT NULL,Paid_Date date NOT NULL,Paid_amount float NOT NULL,FOREIGN KEY (C_Id) REFERENCES Customer(C_Id)
  5  )
  6  ;

Table created.

SQL> desc Payment
 Name                            Null?    Type
 ------------------------------- -------- ----
 C_ID                            NOT NULL VARCHAR2(10)
 PAYMENT_ID                      NOT NULL VARCHAR2(20)
 CARD_TYPE                       NOT NULL VARCHAR2(10)
 CARD_NUM                        NOT NULL NUMBER(38)
 CARD_NAME                       NOT NULL VARCHAR2(20)
 EXP_DATE                        NOT NULL DATE
 CVV                             NOT NULL NUMBER(38)
 STATUS                          NOT NULL VARCHAR2(10)
 PAID_DATE                       NOT NULL DATE
 PAID_AMOUNT                     NOT NULL FLOAT(126)

SQL>
```

```
INSERT INTO Payment
VALUES('1001','5500','VISA','1234567891234567','CUST',To_DATE('022019','MMYYYY'),'123','SUCESSFUL',TO_DATE('12122015','mmddyyyy')

INSERT INTO Payment
VALUES('1002','5501','MASTERCARD','4512369645123678','Rushil',To_DATE('042020','MMYYYY'),'996','SUCESSFUL',TO_DATE('11122015','mm

INSERT INTO Payment
VALUES('1003','5502','DISCOVER','252589631451278','Sapna',To_DATE('092018','MMYYYY'),'900','SUCESSFUL',TO_DATE('12102015','mmddyy

INSERT INTO Payment
VALUES('1004','5503','VISA','9979410236127180','Jesse',To_DATE('102019','MMYYYY'),'056','SUCESSFUL',TO_DATE('12092015','mmddyyyy'

INSERT INTO Payment
VALUES('1005','5504','DISCOVER','6469312578903370','Sabir',To_DATE('102020','MMYYYY'),'846','SUCESSFUL',TO_DATE('12082015','mmddy
```

SCREENSHOTS OF VIEWS

1.View for sales by category

```
SQL> CREATE VIEW SALES_BY_CATEGORY
AS
  2    3  SELECT Payment.PAYMENT_ID, Order_Detail.Order_Id,Product.Cat_Id,Payment.PAID_AMOUNT
FROM Product,Order_Detail,Payment
Where Payment.Order_Id=Order_Detail.Order_Id AND Order_Detail.P_Id=Product.P_Id AND Product.Cat_Id IN(select Cat_Id from Product)
;  4
  5    6

View created.

SQL> SQL> select * from sales_by_category;

PAYMENT_ID           ORDER_ID   CAT_ID     PAID_AMOUNT
-------------------- ---------- ---------- -----------
5502                 9902       11220              700
5504                 9904       11220              234
5500                 9900       11220            89.99
5501                 9901       11221            99.99
5503                 9903       11221              450
```

2. View for sales by products

```
SQL> CREATE VIEW SALES_BY_Productss
AS
SELECT Product.P_Id,Order_Detail.Order_Id,Payment.PAYMENT_ID,Payment.PAID_AMOUNT
from product,Order_Detail,Payment
  2    3    4    5  where
  6  Payment.Order_Id=Order_Detail.Order_Id AND Order_Detail.P_Id=Product.P_Id
;  7

View created.

SQL> select * from sales_by_productss;

P_ID       ORDER_ID   PAYMENT_ID           PAID_AMOUNT
---------- ---------- -------------------- -----------
4401       9901       5501                       99.99
4402       9902       5502                         700
4403       9903       5503                         450
4404       9904       5504                         234
4400       9900       5500                       89.99
```

3. View for sales by brand

```
SQL> CREATE VIEW SALES_BY_BRAND
AS
SELECT Payment.PAYMENT_ID, Order_Detail.Order_Id,Product.Brand_Id,Payment.PAID_AMOUNT
FROM Product,Order_Detail,Payment
  2  Where Payment.Order_Id=Order_Detail.Order_Id AND Order_Detail.P_Id=Product.P_Id AND Product.Brand_Id IN(select Brand_Id from Product)
;  3    4    5    6

View created.

SQL> SELECT * FROM SALES_BY_BRAND;

PAYMENT_ID           ORDER_ID   BRAND_ID   PAID_AMOUNT
-------------------- ---------- ---------- -----------
5502                 9902       2200              700
5500                 9900       2200            89.99
5501                 9901       2201            99.99
5503                 9903       2201              450
5504                 9904       2202              234
```

4. View to check profit by category

```
SQL> CREATE VIEW PROFIT_BY_CATEGORY
AS
SELECT Company_Purchase.P_Id,Product.Sell_Price,Company_Purchase.O_Price,Product.Cat_Id,(Product.Sell_Price - Company_Purchase.O_Price) AS DIFF
FROM Product,Company_Purchase  2    3    4
where Product.P_Id=Company_Purchase.P_Id
;  5    6

View created.

SQL> SELECT * FROM PROFIT_BY_CATEGORY;

P_ID       SELL_PRICE   O_PRICE CAT_ID        DIFF
---------- ---------- ---------- ---------- ----------
4400            89.99        70 11220        19.99
4400            89.99        70 11220        19.99
4401            99.99        70 11221        29.99
4402              350       300 11220          50
4403              450       400 11221          50
4404               78        50 11220          28
4405              800       700 11221         100

7 rows selected.
```

5.View to check profit by product

```
SQL> CREATE VIEW PROFIT_BY_PRODUCT
  2  AS
SELECT Company_Purchase.P_Id,Product.Sell_Price,Company_Purchase.O_Price,(Product.Sell_Price - Company_Purchase.O_Price) AS DIFF
FROM Product,Company_Purchase  3
where Product.P_Id=Company_Purchase.P_Id
  4    5    6 ;

View created.

SQL> select * from PROFIT_BY_PRODUCT;

P_ID       SELL_PRICE   O_PRICE       DIFF
---------- ---------- ---------- ----------
4400            89.99        70      19.99
4400            89.99        70      19.99
4401            99.99        70      29.99
4402              350       300         50
4403              450       400         50
4404               78        50         28
4405              800       700        100

7 rows selected.
```

6.View to check profit by brand

```
SQL> CREATE VIEW PROFIT_BY_BRAND
AS
SELECT Company_Purchase.P_Id,Product.Sell_Price,Company_Purchase.O_Price,Product.Brand_Id,(Product.Sell_Price - Company_Purchase.O_Price) AS DIFF
FROM Product,Company_Purchase
  4  where Product.P_Id=Company_Purchase.P_Id
;  5    6

View created.

SQL> SELECT * FROM PROFIT_BY_BRAND;

P_ID       SELL_PRICE   O_PRICE BRAND_ID        DIFF
---------- ---------- ---------- ---------- ----------
4400            89.99         70 2200            19.99
4400            89.99         70 2200            19.99
4401            99.99         70 2201            29.99
4402              350        300 2200               50
4403              450        400 2201               50
4404               78         50 2202               28
4405              800        700 2200              100

7 rows selected.
```

SCREENSHOTS OF INDEXING

```
SQL> create index payment_detail
ON Payment(Payment_Id,Order_Id,status);  2

Index created.
```

```
SQL> create index Prdt_Detail
ON Product(P_Id,Sell_Price)  2  ;

Index created.
```