CAT-3 DBMS Project

E-Commerce Portal

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Problem Objective:

- The E-Commerce portal is aimed at the development of an application that allows the customers to browse and purchase products.

- It is aimed at providing an easy to use interface for both the customers and the administrator.

Problem Scope :

- The application provides only limited access to the customers whereas the administrator has full access.

- The customers can browse and purchase products by signing in with the created profile .

- The products stock will be updated by the administrator when the stock quantity is low.

Problem Solution :

- **Graphical User Interface:** GUI is used in several parts such as administrator/customer login , browsing or purchasing products , making payments , viewing reports etc...JAVA swings and awt is used for designing the user interface of the portal.

- **Database Management :**Oracle Database will hold the information and data coming from the portal .It holds details of customers, products , categories sales , transactions etc...

Functionalities of Administrator:

- List all customer , category or product details.

- View payment transcations of specific or all customers.

- List customers buying a specific product of any category.

- View payment transactions made on a particular date or for a particular product.
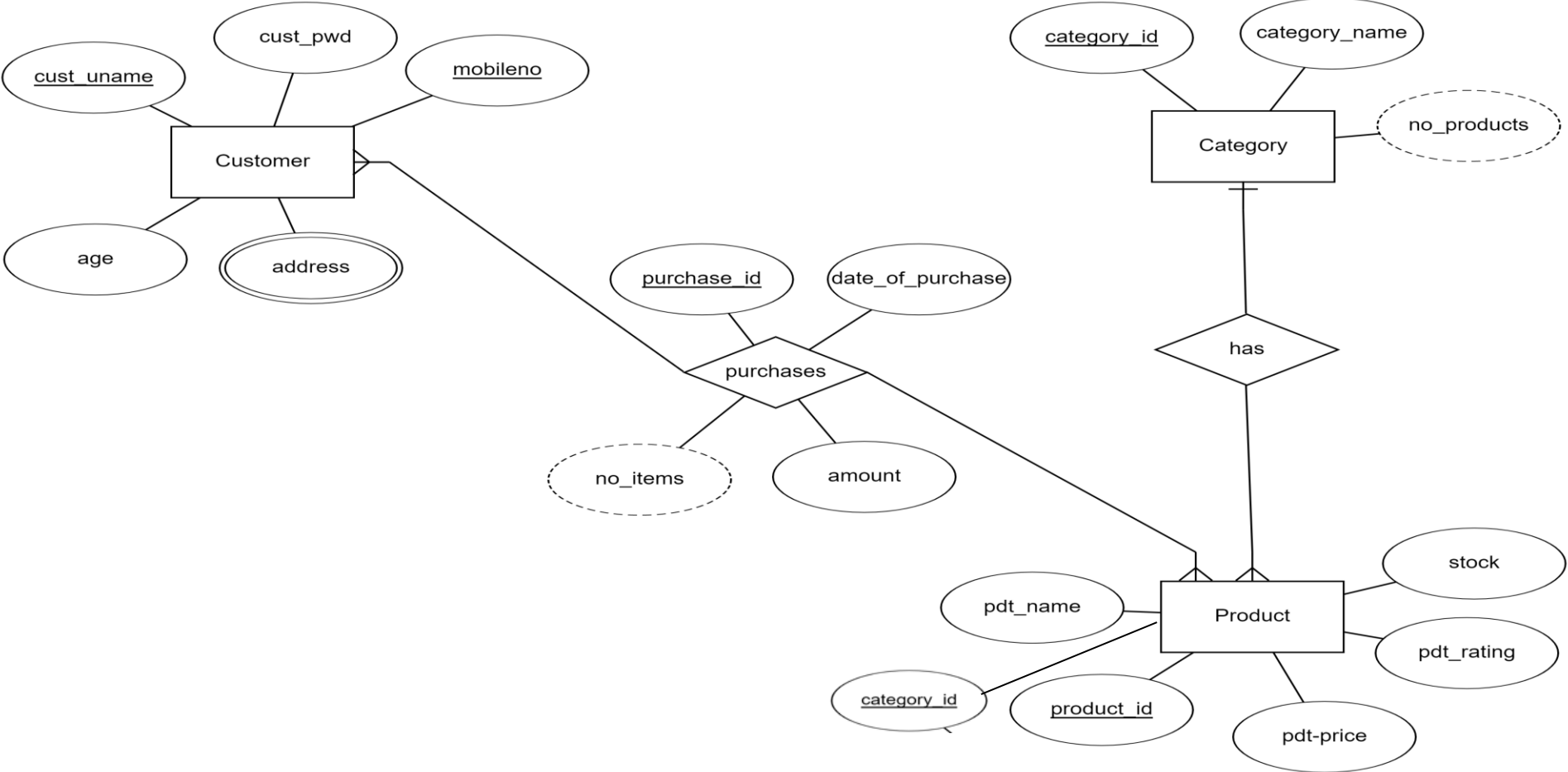
Functionalities of Customer:

- Customer Registration and Login

- Buy and make payment for new products.

- View own purchase/transaction history.

- View own profile.

Entities involved:

- Customer

- Category

- Product

- Payment

ER Diagram:

Customer Registration Form :

Table Creation to store Customers' details :

```sql
create table customers_list(
  cust_no number(3) not NULL,
  cust_uname VARCHAR(30),
  cust_pwd VARCHAR(30),
  cust_age number(2),
  cust_gender char(1),
  cust_mobno number(10),
  address VARCHAR2(200),
  CONSTRAINT samp_cust_pk primary key(cust_uname)
);
```

Code for Customer Registration :

```java
private void signUpBtnActionPerformed(ActionEvent e) {
    // TODO add your code here
    u_name=unameTxtFld.getText();
    pass=pwdTxtFld.getText();
    if(!isValid(u_name)){
        JOptionPane.showMessageDialog(registrationframe, message: "Please enter a valid email id for UserName");
    }
    if(!pass.matches(pattern)) {
        JOptionPane.showMessageDialog(registrationframe, message: "Your password must contain atleast 8 characters with atleast
    }
    address=addressTxtArea.getText();
    age=Integer.parseInt(ageTxtFld.getText());
    if(maleRadBtn.isSelected()){ gender='M'; }
    else{ gender='F'; }
    mobno=Long.parseLong(mobnoTxtFld.getText());
    try{
        Class.forName("oracle.jdbc.driver.OracleDriver");
        Connection con=DriverManager.getConnection(
                url: "jdbc:oracle:thin:@localhost:1521/XEPDB1", user: "SYSTEM", password: "Mbio25022000");
        Statement stmt=con.createStatement();
```

Contd..

```java
ResultSet rs=stmt.executeQuery( sql: "select cust_no from customers_list");
while(rs.next())
    cusno=rs.getInt( columnIndex: 1);


cusno++;
String insert_query="insert into customers_list values(?,?,?,?,?,?,?)";
PreparedStatement preSt=con.prepareStatement(insert_query);
preSt.setInt( parameterIndex: 1,cusno);
preSt.setString( parameterIndex: 2,u_name);
preSt.setString( parameterIndex: 3,pass);
preSt.setInt( parameterIndex: 4,age);
preSt.setString( parameterIndex: 5, String.valueOf(gender));
preSt.setLong( parameterIndex: 6,mobno);
preSt.setString( parameterIndex: 7, address);
cusno++;
preSt.executeUpdate();
con.close();
```

Customers_list Table: :

select * from customers_list;

	CUST_NO	CUST_UNAME	CUST_PWD	CUST_AGE	CUST_GENDER	CUST_MOBNO	ADDRESS
☑	1	ravi@gmail.com	Ravi12345!@	25	M	9988776655	21,Anna Nagar,Chennai-45
☑	2	ajithkumar@gmail.com	AjithKumar123!	22	M	1122334455	21,Peelamedu,Cbe-04
☑	3	kanna@gmail.com	Kkanna123@@	20	M	4455667788	43,Singanallur,Cbe-04
☑	4	nivi@gmail.com	Nive123##	23	M	8870517643	26,Peelamedu,Cbe-04
☑	5	ash@gmail.com	Ashesh78@#	21	F	8899551122	25,Chinniyampalayam,Cbe-09
☑	6	vicky@gmail.com	VickyRockzz12##	21	M	7709543213	Gardens,Singanallur,Cbe-04
☑	7	prak30ash@gmail.com	Perkster@gma111	19	M	7788090541	KBNagar,Cheran Managar,Cbe-04
☑	8	ArvinthKumar@gmail.com	AZQwsx123@	20	M	9944631870	34,Peelamedu,Coimbatore-04

Table Creation for Category and Product Tables :

```sql
create table category(
   category_id VARCHAR2(5),
   category_Name VARCHAR2(20),
   no_products number(4),
   constraint category_pk primary key(CATEGORY_ID));


create table products(
   cat_id VARCHAR2(5),
   pdt_id varchar(5),
   pdt_name varchar(20),
   pdt_price number(7),
   pdt_rating number(2,1),
   no_stock number(3),
   constraint product_pk primary key(cat_id,pdt_id)
);
```

Category Table:

```
select * from category;
```

☑	CATEGORY_ID	CATEGORY_NAME	NO_PRODUCTS
☑	CA1	Mobiles	180
☑	CA2	Books	180
☑	CA3	Watches	180
☑	CA4	Shoes	180
☑	CA5	Computers	210
☑	CA6	Clothes	200

Product Table :

	CAT_ID	PDT_ID	PDT_NAME	PDT_PRICE	PDT_RATING	NO_STOCK
☑	CA1	ip11	iPhone 11	55000	4.6	30
☑	CA1	ip11P	iPhone 11 Pro	65000	4.3	30
☑	CA1	nok8	Nokia 8	40000	4.2	30
☑	CA1	nk8p2	Nokia 8.2	25000	4	30
☑	CA1	px4	Pixel 4	40000	3.9	30
☑	CA1	px4xl	Pixel 4XL	45000	4	30
☑	CA2	adTT	Adventures of TinTin	3500	4	30
☑	CA2	coNar	Chronicles of Narnia	4500	4.5	30
☑	CA2	hp19	Harry Potter I-IX	3800	3.7	30
☑	CA2	qtSb	Quentin SQL Basics	6500	3.9	30
☑	CA2	psJf	PSJAVA Fundamental	5500	3.9	30
☑	CA2	xvAF	Xav AWT Fundamental	3500	4.6	30
☑	CA3	csb3	Casio CSB3	3000	4.3	30
☑	CA3	cac4t	Casio C4T	4000	4.5	30
☑	CA3	ftfz1	Fastrack FZ1	5500	4.6	30
☑	CA3	ssb2	Seiko SSB2	3800	3.8	30
☑	CA3	sszx	Seiko SZX	6900	4.8	30
☑	CA3	rrt5	Rolex RT5	4900	4.2	30

Customer Login Form :

Shopping Page

Your Cart   **Rs.**

MacBook Air	70000
FILA 112Z	5500
Seiko SSB2	3800

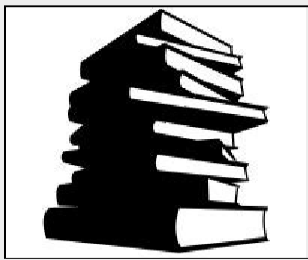**Total :**   79300

Proceed to Payment
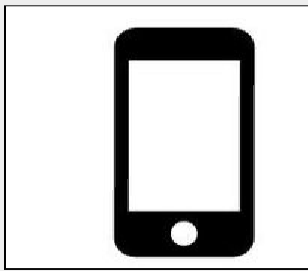
Mobile Phones

iPhone 11 ▾

Price :   Rs.

Rating :

Add to Cart

Books

Adventures of TinTin ▾

Price :   Rs.

Rating :

Add to Cart

Computers/Appliances

MacBook Air ▾

Price :   Rs.   70000

Rating :   4.9

Add to Cart

Footwears

FILA 112Z ▾

Price :   Rs.   5500

Rating :   4.1

Add to Cart

Watches

Seiko SSB2 ▾

Price :   Rs.   3800

Rating :   3.8

Add to Cart

Clothes

Denim Jeans ▾

Price Rs .   2500

Rating :   4.1

Add to Cart

Thank You