6308 - JAVA PROGRAMMING

JAVA MINI PROJECT

Title: 9 to 9 online supermarket

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PROJECT DESCRIPTION

This 9 to 9 online supermarket is a system developed using java, which is associated with a store (in our case , A-square Shopping) where the admin is the owner of the store , and the users are customers who want to purchase items from the store. This is a product delivery system , where a user can view the products available in the store and place orders by giving their delivery address, the mode of payment is only COD. The admin can add products into the system, can delete / update the stocks of any products from the system, and can check the orders placed by the customers . The user can check for products available in the store from their homes through the system and can add the desired products into cart and place orders.

In our project, we have categorised the products as electronic products, mobiles and kids sections. 9 to 9 means the delivery of products occurs between 9 am and 9 pm.

CONCEPTS OF JAVA INCORPORATED

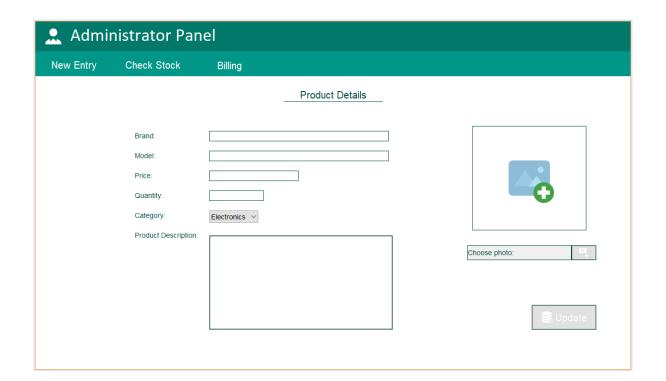
- Classes and Objects
- Arrays and other data structures
- Java Swings and awt
- Core Java
- **❖** JDBC
- Exception Handling

1. MODULES

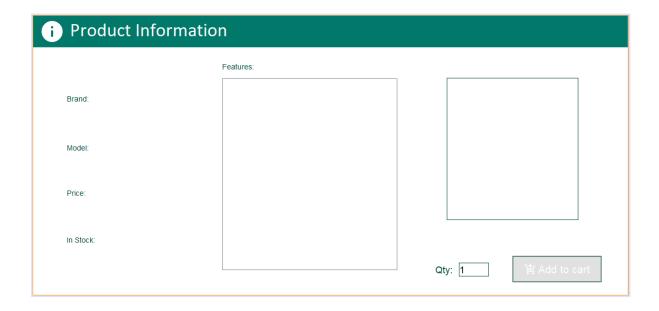
- 1. Front-end:
 - a. JAVA Swing/AWT
- 2. Back-end:
 - a. SQLite DB , JDBC.

2. FORMS

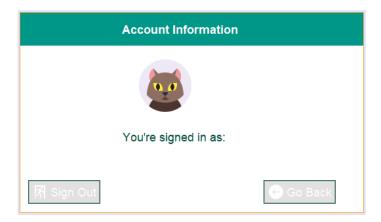
1. Panel for ADMIN



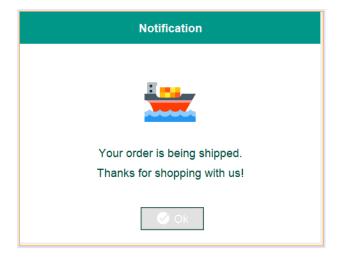
2. Product information while adding a new product



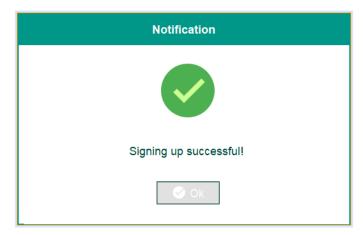
3. Account status



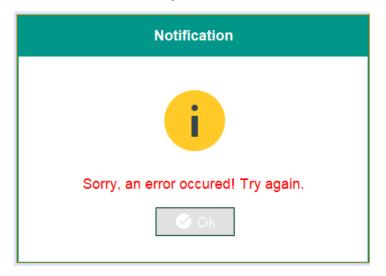
4. Notification after purchasing the products



5. Notification after signing up



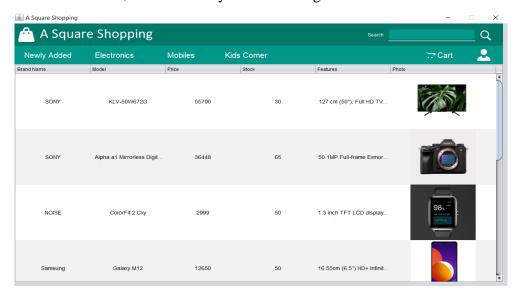
6. Notification if any error occurred



USER POINT OF VIEW

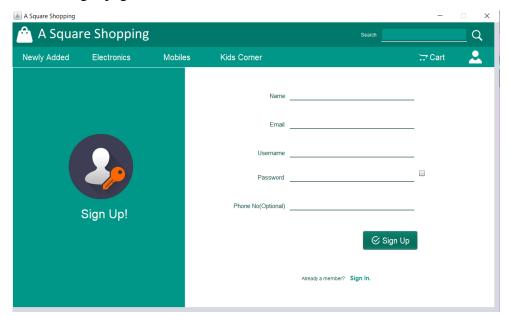
1. HOME PAGE:

- Newly Added products page will be our Home page
- It contains the top Three items of recently added electronic products, Mobiles and items of kids corner by Admin.
- The user can see products and the stocks available and can also add those desired items into the cart, but cannot buy if he is not signed in.



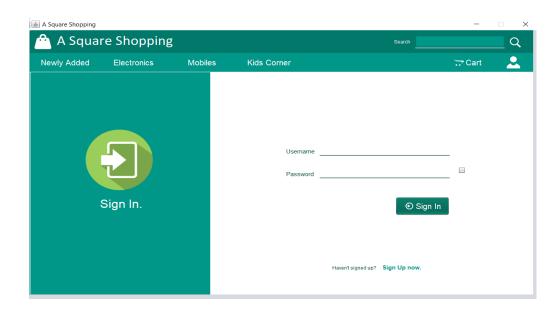
2. Sign-up page:

- The user can sign up if he/she is not registered.
- The user must sign up and after signing, it automatically redirects to the sign-in/login page.



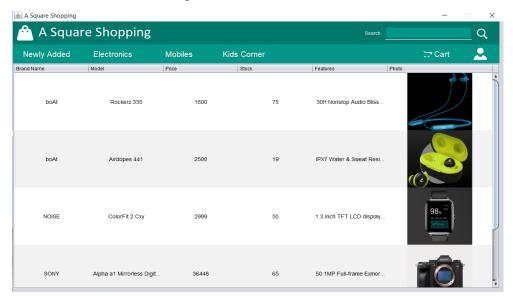
3. Login/Sign-in page:

- The user can login using the username and password which he used to signup.
- The user must sign in in order to purchase products.



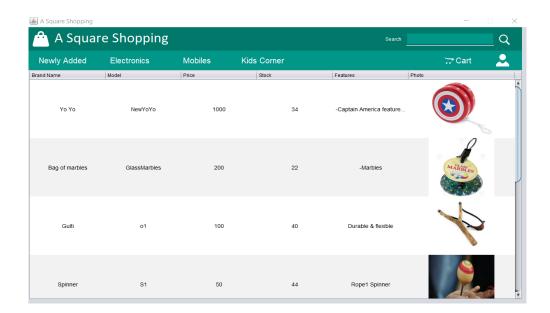
4. Electronic Products page:

- This page contains a list of Mobile products added by the admin.
- The brand-name, model number, price, stock available, features of the product and its image are the descriptions available for any product that a user can see before adding it to cart.

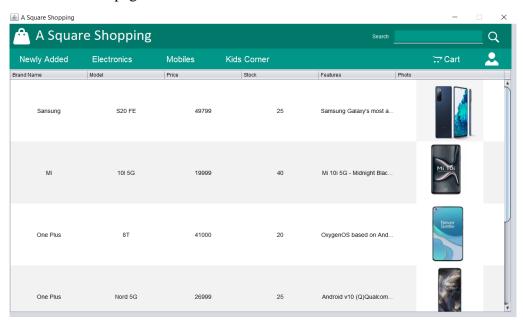


5. Kids Corner page

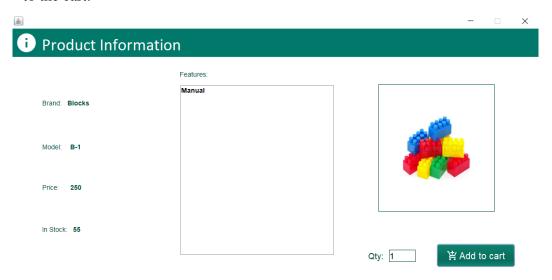
- This page contains a list of kids products added by the admin.
- The brand-name, model number, price, stock available, features of the product and its image are the descriptions available for any product that a user can see before adding it to cart.
- This page consists of the list of all electronics products added by the Admin.
- The brand-name, model number, price, stock available, features of the product and its image are the descriptions available for any product that a user can see before adding it to cart.



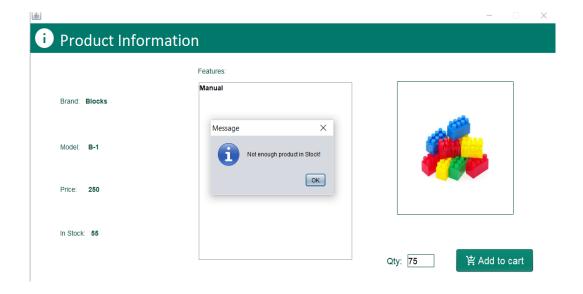
6. Mobiles pages :



- 7. Product information and quantity to purchase
 - For every product in the Electronics/Mobile/Kids Corner Section of the project. The following image is displayed with all its features like brand-name, model number, price, stocks available, features of the product and its image. The user can see the product's details before adding it to cart.
 - The user can update the quantity that he wants and the Add to Cart button , adds them to the cart.

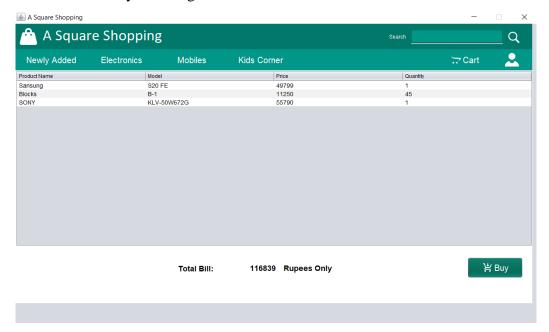


• If a user wants a product above the stock available, it generates the following notification, and the items are not added into the cart.



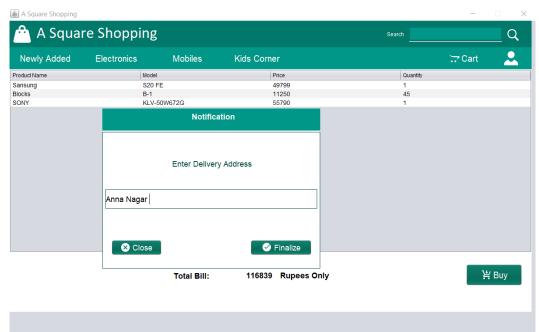
8. CART page:

- This page contains a list of products which the user has added to cart.
- Product name, model, price (calculated, with price of 1 * quantity) and quantity of each product added to cart is shown.
- After adding the desired products, the user can see the total bill, and proceed further by selecting the BUY button.

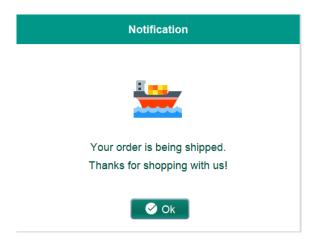


9. Delivery address page:

 After selecting the desired product, users can proceed further by entering the DELIVERY ADDRESS and finalizing the selected products.



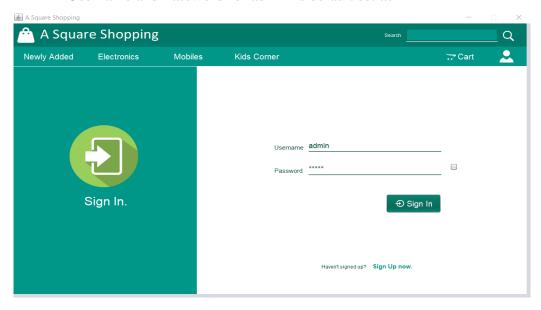
- 10. Notification for shipping after finalize the delivery address and placing the order :
 - If the order is placed, then the stocks of all those products are updated , i.e decreased from the available stocks .



ADMIN POINT OF VIEW

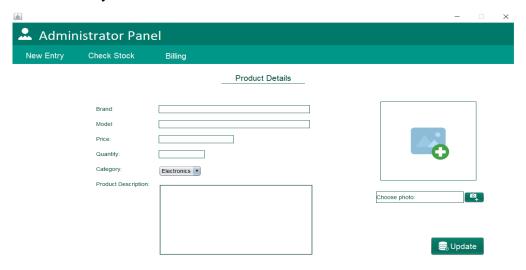
1. Login panel for ADMIN:

• Username and Password for admin is default set as "admin" and "admin"



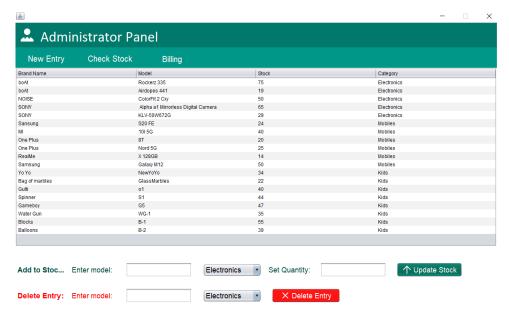
2. New Entry page:

- The Admin can add new products into the Shopping cart.
- The category drop list is present where the admin can choose which category (electronics, mobile, kids) of the product the admin wants to add.
- The brand, model number, quantity, price, product description and the product's image must be added by the admin.
- The update button will update the database and the newly added items can be seen by the user.



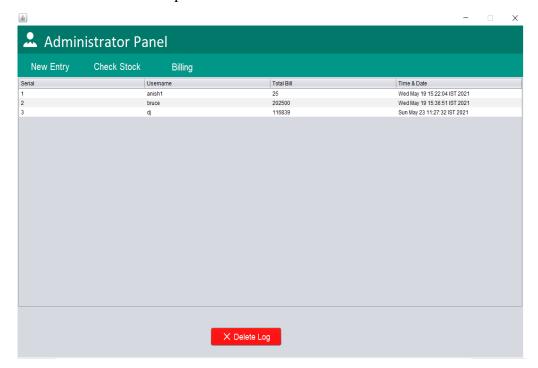
3. Check Stocks for Admin:

• The admin can add stock, delete entry(product) and view all details of the present products available in the shop. Add stocks can update the number of stocks available for a product, the model number will act as the primary key.



4. Billing panel for Admin:

• Admin can view and delete all previous billings done by the users with the time and date of purchase.



3. TABLES in DATABASE

1. Userinfo (login details)

	username name		email	password	phone
	Filter	Filter	Filter	Filter	Filter
1	asd	sad	sad@gmail.com	dsa	
2	jsdg	jha	jhag@gmail.com	ashgf	7418529635
3	tony	Tony Stark	iamironman@gmail.com	tony	
4	steve	Steve Smith	ss@gmail.com	steve	
5	ak	Aakash	akwayne@gmail.com	ak	
6	anish	anish	anishyemma@gmail.com	anish	9685741232
7	ak4	ak	ak1@gmail.com	ak	
8	adicj	adi	adicj@gmail	adicj	9856985471
9	dj	dj	dj@gmail.com	dj	
10	dj1	dj1	dj1@gmail.com	dj1	
11	dj2	dj2	dj2@gmail.com	dj2	6352417496

2. BillingDB (details of orders placed)

	id	uname	bill	date
	Filter	Filter	Filter	Filter
1	1	anish1	25	Wed May 19 15:22:04 IST 2021
2	2	bruce	202500	Wed May 19 15:36:51 IST 2021
3	19	dj	116839	Sun May 23 11:27:32 IST 2021

3. electronicsDB (list of electronic products available)

	id	mbrand	mmodel	mprice	mquantity	mdescription	mphoto
	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	boAt	Rockerz 335	1600	75	30H Nonstop Audio Bliss	boat-wire.png
2	2	boAt	Airdopes 441	2500	19	IPX7 Water & Sweat Resistance	boat-wireless.png
3	3	NOISE	ColorFit 2 Cxy	2999	50	1.3 inch TFT LCD display	smart-watch.png
4	4	SONY	Alpha a1 Mirrorless Digital Camera	36448	65	50.1MP Full-frame	sony-cam.png
5	5	SONY	KLV-50W672G	55790	29	127 cm (50"), Full HD TV	sony-tv.png

4. kidsDB

	id	id mbrand mmodel		mprice mquantity		mdescription	mphoto
	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	Yo Yo	NewYoYo	1000	34	-Captain America featured Yo	yoyo.jpg
2	2	Bag of marbles	GlassMarbles	200	22	-Marbles	marbles-bag.jpg
3	3	Gulti	o1	100	40	Durable & flexible	Gulti.jpg
4	4	Spinner	S1	50	44	Rope	Spinner.jpg
5	5	Gameboy	G5	300	47	3 game	gameboy.jpg
6	6	Water Gun	WG-1	150	35	Fires water at a long distant	water gun.jpg
7	7	Blocks	B-1	250	55	Manual	Blocks.jpg
8	8	Balloons	B-2	5	39	10 piece packet	Balloons.jpg

5. mobileDB

	id	mbrand	mmodel	mprice	mquantity	mdescription	mphoto
	Filter	Filter	Filter	Filter	Filter	Filter	Filter
1	1	Sansung	S20 FE	49799	24	Samsung Galaxy's most advanced	S-s20-fe.png
2	2	MI	10I 5G	19999	40	Mi 10i 5G - Midnight Black	mi-10i.png
3	3	One Plus	8T	41000	20	OxygenOS based on Android 11	1plus8T.png
4	4	One Plus	Nord 5G	26999	25	Android v10 (Q)	1plus-nord.png
5	5	RealMe	X 128GB	200000	14	16.59 cm (6.53 inch) FHD+ Super	realme-x.png
6	6	Samsung	Galaxy M12	12650	50	16.55cm (6.5") HD+ Infinity-V Displa	S-M12.png

1. BillObject

```
package project;
public class BillObject {
  private int id;
  private String uname;
  private int bill;
  private String date;
  public BillObject(int id, String uname, int bill, String date) {
     this.id = id;
     this.uname = uname;
     this.bill = bill;
     this.date = date;
  public int getId() {
     return id;
  public void setId(int id) {
     this.id = id;
  public String getUname() {
     return uname;
  public void setUname(String uname) {
     this.uname = uname;
  public int getBill() {
     return bill;
  public void setBill(int bill) {
     this.bill = bill;
  public String getDate() {
     return date;
  public void setDate(String date) {
     this.date = date;
```

2. ProductList

```
package project;
import java.awt.Image;
import javax.swing.ImageIcon;
public class ProductList {
  private String brand;
  private String model;
  private int price;
  private int qty;
  private String description;
  private String mimage;
  public ProductList(String brand, String model, int price, int qty, String description, String image) {
     this.brand = brand;
     this.model = model;
     this.price = price;
     this.qty = qty; \\
     this.description = description;
     this.mimage = image;
  }
  public String getBrand() {
     return brand;
  }
  public void setBrand(String brand) {
     this.brand = brand;
  public String getModel() {
     return model;
  public void setModel(String model) {
     this.model = model;
  public int getPrice() {
     return price;
  public void setPrice(int price) {
     this.price = price;
  public int getQty() {
     return qty;
  public void setQty(int qty) {
     this.qty = qty;
```

```
public String getDescription() {
    return description;
  }
  public void setDescription(String description) {
    this.description = description;
  public String getMimage() {
    return mimage;
  }
  public void setMimage(String mimage) {
    this.mimage = mimage;
  }
}
    Search.java
public class Search {
  static int electronics = 0;
  static int mobile = 0:
  static int kids = 0;
  public static ArrayList<ProductList> mobileSearch(String model){
    ArrayList<ProductList> list = new ArrayList<>();
      Connection\ con = Driver Manager.get Connection ("jdbc:sqlite:DBs/electronicsDB.db");
      PreparedStatement ps = con.prepareStatement("SELECT * FROM electronics WHERE mbrand=? COLLATE
NOCASE OR mmodel=? COLLATE NOCASE");
      ps.setString(1, model);
       ps.setString(2, model);
       ResultSet rs = ps.executeQuery();
       ProductList pl, gl, kl=null;
       while(rs.next()){
         pl = new ProductList(rs.getString("mbrand"),rs.getString("mmodel"),
              rs.getInt("mprice"),rs.getInt("mquantity"),rs.getString("mdescription"),
              rs.getString("mphoto"));
         electronics++;
         list.add(pl);
       }
      con.close();
      con = DriverManager.getConnection("jdbc:sqlite:DBs/mobileDB.db");
      ps = con.prepareStatement("SELECT * FROM mobiles WHERE mbrand=? COLLATE NOCASE OR
mmodel=? COLLATE NOCASE");
      ps.setString(1, model);
      ps.setString(2, model);
      rs = ps.executeQuery();
```

```
while(rs.next()){
         gl = new ProductList(rs.getString("mbrand"),rs.getString("mmodel"),
              rs.getInt("mprice"),rs.getInt("mquantity"),rs.getString("mdescription"),
              rs.getString("mphoto"));
         mobile++;
         list.add(gl);
       con.close();
       con = DriverManager.getConnection("jdbc:sqlite:DBs/kidsDB.db");
       ps = con.prepareStatement("SELECT * FROM kids WHERE mbrand=? COLLATE NOCASE OR mmodel=?
COLLATE NOCASE");
       ps.setString(1, model);
       ps.setString(2, model);
       rs = ps.executeQuery();
       while(rs.next()){
         kl = new ProductList(rs.getString("mbrand"),rs.getString("mmodel"),
              rs.getInt("mprice"),rs.getInt("mquantity"),rs.getString("mdescription"),
              rs.getString("mphoto"));
         kids++;
         list.add(kl);
       }
       con.close();
     } catch (SQLException ex) {
       Logger.getLogger(MobileDB.class.getName()).log(Level.SEVERE, null, ex);\\
    return list;
  }
```

5. DATABASE OPERATIONS

1. <u>dbconnector.java:</u>

- Used for inserting data of new users into the table.
- The data which are provided by the user through SIGN-IN form.

- This query is used for LOG-IN.
- It compares the username and password given by the user with the username and password existing in the data-base.

2. kidsDB.java, ElectronicsDB.java, mobileDB.java:

Note: The following database operations are common for the products of all categories.

 The admin can insert new products into the system under the kids, electronics and mobile section using this query by giving those respective values in the product information form.

• The Admin can update the stocks of the products if they are low, through the admin panel.

 This query is used to display all the product information from the data-base, in the main page of user under each category.

• This Query is used to display the top 3 latest added products under each category for the NEWLY ADDED section in the main page of the user.

• The admin can view the stocks available for each products using this query to fetch data from each DB corresponding to the Mobile, Electronics and Kids section.

• Admin can delete a product, if there any exist, using this query from the admin panel.

3. search.java

- This query is used to search a product by entering it's Model or Brand name.
- There are 3 queries under this class, which is used to search all 3 databases, which are Mobile DB, Kids DB and Electronics DB.

4. BillingDB.java

```
public static void insertIntoBillingDB(String username, int price, String date){
    try {
        Connection con = DriverManager.getConnection("jdbc:sqlite:DBs/billingDB.db");

        PreparedStatement ps = con.prepareStatement("INSERT INTO billing(uname, bill, date) VALUES(?,?,?)");

        ps.setString(1, username);
        ps.setInt(2, price);
        ps.setString(3, date);
        ps.executeUpdate();

} catch (SQLException ex) {
        Logger.getLogger(MobileDB.class.getName()).log(Level.SEVERE, null, ex);
}
```

• This query is used to insert the bill details into the bill database after purchasing.

```
public static ArrayList<BillObject> billlings(){
   ArrayList<BillObject> customers = new ArrayList<>();
    try {
        Connection con = DriverManager.getConnection("jdbc:sqlite:DBs/billingDB.db");
        Statement ps = con.createStatement();
        ResultSet rs = ps.executeQuery("SELECT id, uname, bill, date FROM billing");
        BillObject pl;
        while(rs.next()){
            pl = new BillObject(rs.getInt("id"),rs.getString("uname"),
                    rs.getInt("bill"),rs.getString("date"));
            customers.add(pl);
    }
} catch (SQLException ex) {
        Logger.getLogger(MobileDB.class.getName()).log(Level.SEVERE, null, ex);
    }
    return customers;
}
```

• The admin can view all the billing details of the customers by using this query.

```
public static void deleteBillings(){
    try {
        Connection con = DriverManager.getConnection("jdbc:sqlite:DBs/billingDB.db");
        PreparedStatement ps = con.prepareStatement("DELETE FROM billing");
        ps.executeUpdate();
        JOptionPane.showMessageDialog(null, "All entries have been deleted!");

} catch (SQLException ex) {
        Logger.getLogger(ElectronicsDB.class.getName()).log(Level.SEVERE, null, ex);
    }
}
```

• The admin can delete all billing logs if he wants to , by using this query.