

UserInterface.java

```
import java.util.*;

public class HomeAppliances {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter Product Id");
        String id = sc.nextLine();
        System.out.println("Enter Product Name");
        String name = sc.nextLine();
        switch (name)
        {
            case "AirConditioner":
            {
                System.out.println("Enter Batch Id");
                String batch = sc.nextLine();
                System.out.println("Enter Dispatch date");
                String date = sc.nextLine();
                System.out.println("Enter Warranty Years");
                int years = sc.nextInt();
                System.out.println("Enter type of Air Conditioner");
                String type = sc.nextLine();
                System.out.println("Enter quantity");
                double capac = sc.nextDouble();
                AirConditioner ob1 = new AirConditioner(id, name, batch, date, years, type,
capac);

                double price = ob1.calculateProductPrice();
                System.out.printf("Price of the Product is %.2f ", price);

            }
            case "LEDTV":
            {
                System.out.println("Enter Batch Id");
                String batch = sc.nextLine();
                System.out.println("Enter Dispatch date");
                String date = sc.nextLine();
                System.out.println("Enter Warranty Years");
                int years = sc.nextInt();
                System.out.println(name);
                System.out.println("Enter size in inches");
                int size = sc.nextInt();
                System.out.println("Enter quality");
                String quality = sc.nextLine();
                LEDTV ob2 = new LEDTV(id, name, batch, date, years, size, quality);
                double price = ob2.calculateProductPrice();
                System.out.printf("Price of the Product is %.2f ", price);

            }
            case "MicrowaveOven":
            {
                System.out.println("Enter Batch Id");
                String batch = sc.nextLine();
                System.out.println("Enter Dispatch date");
                String date = sc.nextLine();
                System.out.println("Enter Warranty Years");
                int years = sc.nextInt();
                System.out.println("Enter quantity");
                int quantity = sc.nextInt();
                System.out.println("Enter quality");
                String quality = sc.nextLine();
                MicrowaveOven ob3 = new MicrowaveOven(id, name, batch, date, years,
quantity, quality);

                double price = ob3.calculateProductPrice();
                System.out.printf("Price of the Product is %.2f ", price);

            }
        }
    }
}
```

```

        default: {
            System.out.println("Provide a valid Product name");
        }
    }
}
}

```

```

=====
MicrowaveOven.java
=====

```

```

public class MicrowaveOven extends ElectronicProducts {

    private int quantity;
    private String quality;

    public int getQuantity() {
        return quantity;
    }

    public void setQuantity(int quantity) {
        this.quantity = quantity;
    }

    public String getQuality() {
        return quality;
    }

    public void setQuality(String quality) {
        this.quality = quality;
    }

    // Include Constructor
    public MicrowaveOven(String productId, String productName, String batchId, String
dispatchDate, int warrantyYears,
        int quantity, String quality) {
        super(productId, productName, batchId, dispatchDate, warrantyYears);
        this.quantity = quantity;
        this.quality = quality;
    }

    public double calculateProductPrice() {
        // Fill Code
        double price = 0;
        if (quality == "Low") {
            price = quantity * 1250;
        } else if (quality == "Medium") {
            price = quantity * 1750;
        } else if (quality == "High") {
            price = quantity * 2000;
        }
        return price;
    }

}

```

```

=====
ElectronicProducts.java

```

```

public class ElectronicProducts {

```

```

        protected String productId;
        protected String productname;
        protected String batchId;
        protected String dispatchDate;
        protected int warrantyYears;

        public String getProductId() {
            return productId;
        }

        public void setProductId(String productId) {
            this.productId = productId;
        }

        public String getProductname() {
            return productname;
        }

        public void setProductname(String productname) {
            this.productname = productname;
        }

        public String getBatchId() {
            return batchId;
        }

        public void setBatchId(String batchId) {
            this.batchId = batchId;
        }

        public String getDispatchDate() {
            return dispatchDate;
        }

        public void setDispatchDate(String dispatchDate) {
            this.dispatchDate = dispatchDate;
        }

        public int getWarrantyYears() {
            return warrantyYears;
        }

        public void setWarrantyYears(int warrantyYears) {
            this.warrantyYears = warrantyYears;
        }

        public ElectronicProducts(String productId, String productname, String batchId, String
dispatchDate,
                                int warrantyYears) {
            this.productId = productId;
            this.productname = productname;
            this.batchId = batchId;
            this.dispatchDate = dispatchDate;
            this.warrantyYears = warrantyYears;
        }
    }

=====
AirConditioner.java
=====

public class AirConditioner extends ElectronicProducts {

    private String airConditionerType;
    private double capacity;

```

```

    public String getAirConditionerType() {
        return airConditionerType;
    }

    public void setAirConditionerType(String airConditionerType) {
        this.airConditionerType = airConditionerType;
    }

    public double getCapacity() {
        return capacity;
    }

    public void setCapacity(double capacity) {
        this.capacity = capacity;
    }

    // Include Constructor
    public AirConditioner(String productId, String productName, String batchId, String
dispatchDate, int warrantyYears,
        String airConditionerType, double capacity) {
        super(productId, productName, batchId, dispatchDate, warrantyYears);
        this.airConditionerType = airConditionerType;
        this.capacity = capacity;
    }

    public double calculateProductPrice() {
        // Fill Code
        double cost = 0;
        if (airConditionerType == "Residential") {
            if (capacity == 2.5) {
                cost = 32000;
            } else if (capacity == 4) {
                cost = 40000;
            } else if (capacity == 5.5) {
                cost = 47000;
            }
        } else if (airConditionerType == "Commercial") {
            if (capacity == 2.5) {
                cost = 40000;
            } else if (capacity == 4) {
                cost = 55000;
            } else if (capacity == 5.5) {
                cost = 67000;
            }
        } else if (airConditionerType == "Industrial") {
            if (capacity == 2.5) {
                cost = 47000;
            } else if (capacity == 4) {
                cost = 60000;
            } else if (capacity == 5.5) {
                cost = 70000;
            }
        }
        return cost;
    }
}

```

```

=====
LEDTV.java
=====

```

```

public class LEDTV extends ElectronicProducts {

```

```

private int size;
private String quality;

public int getSize() {
    return size;
}

public void setSize(int size) {
    this.size = size;
}

public String getQuality() {
    return quality;
}

public void setQuality(String quality) {
    this.quality = quality;
}

// Include Constructor
public LEDTV(String productId, String productName, String batchId, String dispatchDate, int
warrantyYears, int size,
                String quality) {
    super(productId, productName, batchId, dispatchDate, warrantyYears);
    this.size = size;
    this.quality = quality;
}

public double calculateProductPrice() {
    // Fill Code
    double price = 0;
    if (quality == "Low") {
        price = size * 850;
    } else if (quality == "Medium") {
        price = size * 1250;
    } else if (quality == "High") {
        price = size * 1550;
    }
    return price;
}
}

```