I have attached the error checks for the commands as screenshots. My programme executes all commands as desired.

Run Programme

```
acar@DESKTOP-IEVDRBN:/mnt/d/hw3$ make
javac -classpath . Main.java
acar@DESKTOP-IEVDRBN:/mnt/d/hw3$ make run
java Main
Welcome to the Electronics Inventory Management System!
Please select an option:

    Add a new device

Remove a device
3. Update device details
List all devices
5. Find the cheapest device

    Sort devices by price
    Calculate total inventory value

8. Restock a device
Export inventory report
0. Exit
Your choice:
```

Add a New Device

```
Your choice: 1
Enter category name (Tablet, Phone, Headphone, Computer, TV or press 'q' to go back): a
Invalid category. Please enter a valid category name from the list.
Enter category name (Tablet, Phone, Headphone, Computer, TV or press 'q' to go back): Phone
Enter device name: LG G5
Enter price (a positive number or press 'q' to go back): 800$
Enter quantity (a positive number or press 'q' to go back): -1
Please enter a positive number.
Enter quantity (a positive number or press 'q' to go back): 10
phone, LG G5, $800.00, 10 amount added...
```

Remove a Device

```
Your choice: 2
Enter the name of the device to remove (or press 'q' to go back): a
Device not found. Please try again or press 'q' to go back.
Enter the name of the device to remove (or press 'q' to go back): lg
Device not found. Please try again or press 'q' to go back.
Enter the name of the device to remove (or press 'q' to go back): lg a32
lg a32 has been removed from the inventory.
```

Update Device Details

```
Your choice: 3
Enter the name of the device to update (or press 'q to go back): LG A55
Enter new price (or -1 to skip): -1
Enter new quantity (or -1 to skip): -2
Quantity cannot be negative (other than -1 to skip). Please enter a positive number or -1 to skip.
Enter new quantity (or -1 to skip): a
Invalid input. Please enter a valid number.
Enter new quantity (or -1 to skip): 50
LG A55 details updated: Quantity - 50
```

List All Devices

```
Your choice: 4
Category: Tablet, Name: Samsung G500, Price: 100.0$, Quantity: 100
Category: Phone, Name: İphone 7, Price: 500.0$, Quantity: 10
Category: Computer, Name: Monster Tulpar, Price: 900.0$, Quantity: 11
Welcome to the Electronics Inventory Management System!
Please select an option:

    Add a new device

2. Remove a device
3. Update device details
4. List all devices
Find the cheapest device
Sort devices by price
Calculate total inventory value
Restock a device
9. Export inventory report
0. Exit
Your choice:
```

Find The Cheapest Device

```
Your choice: 5
The cheapest device is: Category: Tablet, Name: Samsung G500, Price: 100.0$, Quantity: 100
Welcome to the Electronics Inventory Management System!
Please select an option:
1. Add a new device
2. Remove a device
3. Update device details
4. List all devices
5. Find the cheapest device
6. Sort devices by price
7. Calculate total inventory value
8. Restock a device
9. Export inventory report
0. Exit
Your choice: ____
```

Sort Devices by Price

```
Your choice: 6
Devices sorted by price.
Category: Tablet, Name: Samsung G500, Price: 100.0$, Quantity: 100
Category: Phone, Name: İphone 7, Price: 500.0$, Quantity: 10
Category: Computer, Name: Monster Tulpar, Price: 900.0$, Quantity: 11
Welcome to the Electronics Inventory Management System!
Please select an option:

    Add a new device

Remove a device
Update device details
4. List all devices
Find the cheapest device
6. Sort devices by price
7. Calculate total inventory value
8. Restock a device
Export inventory report
Exit
Your choice:
```

Calculate Total Inventory Value

```
Your choice: 7
Total inventory value: $24900.00

Welcome to the Electronics Inventory Management System!
Please select an option:
1. Add a new device
2. Remove a device
3. Update device details
4. List all devices
5. Find the cheapest device
6. Sort devices by price
7. Calculate total inventory value
8. Restock a device
9. Export inventory report
0. Exit
Your choice:
```

Restock a Device

```
Your choice: 8
Enter the name of the device to restock (or press 'q' to go back): d
Device not found. Please try again or press 'q' to go back.
Enter the name of the device to restock (or press 'q' to go back): LG A55
Do you want to add or remove stock? (Add/Remove or press 'q' to go back): 5
Invalid action. Please type 'Add' or 'Remove', or 'q' to go back.
Do you want to add or remove stock? (Add/Remove or press 'q' to go back): Add
Enter the quantity to add: s
Invalid input. Please enter a valid number, or 'q' to go back.
Enter the quantity to add: 5
LG A55 restocked. New quantity: 55
```

```
Your choice: 8
Enter the name of the device to restock (or press 'q' to go back): LG A55
Do you want to add or remove stock? (Add/Remove or press 'q' to go back): Remove
Enter the quantity to remove: 53
LG A55 stock reduced. New quantity: 2
```

Export Inventory Report

```
Your choice: 9
Electronics Shop Inventory Report
Generated on: 24 of March 2024
 No. | Category
                    Name
                                      Price
                                                   Quantity
        Tablet
                      İpad
                                        $400.00
        Phone
                      İphone 6
                                        $400.00
                                                     2
 2
  3
         TV
                     LG
                                        $700.00
                                                     20
 4
                     Beko
                                        $500.00
                                                     3
Summary:
- Total Number of Devices: 4

    Total Inventory Value: $24300.00

End of Report
```

Exit

0. Exit Your choice: 0 Exiting...