

PROJECT REPORT

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Submitted to
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1.1 Introduction

This program will help users in selecting Laptop or PC for themselves. The program will display 6 different choices of laptops and PC for the user. The user will then select the best choice of laptop or PC for himself according to his budget. The program has 4 categories of choices: Student laptops or PCs, Office laptops or PCs, Gaming laptops or PCs and Home/Personal laptops or PCs. In the end, the user's order will be placed and the product will be delivered. This program is console based.

1.2 Task Distribution

HASSAN

- PROJECT IDEA
- PROJECT LEAD
- HANDLING, EDITING AND COMPILING THE WHOLE PROJECT
- RESEARCHED WHOLE DATA OF LAPTOPS AND COMPUTERS
- MADE THE WHOLE INVENTORY OF THE PROGRAM
- ADMINISTRATION CONTROL
- FILE HANDLING
- HELPED TEAMMATES IN THEIR MODULES

KASHAF

- LOG IN SYSTEM FOR ADMIN
- LOG IN FOR CUSTOMER
- ADMINISTRATION CONTROL
- PAYMENT
- FILE HANDLING

BAKHTAWAR

- STORING AND REMOVING ORDER NUMBER
- FILE HANDLING
- SUGGESTIONS
- ADDRESS
- COMPLAINTS

OVERALL EACH AND EVERY ONE OF US CONTRIBUTED SAME EFFORTS TO THE PROJECT.

1.3 Features of Project

- Credentials verifier project that you can only use after correct credentials i.e. User Names and Passwords.

- Use of Multiple Modules to make the main program shorter and easier to understand.
- Data stored in files in order to store permanently.
- Properly commented and indented code.
- Easy logic designing to make code much Easier.
- Use of Arrays, Recursion, and Loops to reuse the code and implement it smoothly.

1.4 Modules Used in Project

Laptop/PC Choice uses multiple modules to make main program execute smoothly. Each module has a function of its own which is called upon whenever necessary. They are as follows:

1.5 Main Menu

After the execution of program successfully the main menu modules executes first and will ask the user about his/her choices on running the program which includes open admin or customer panels or exiting the program.

```
house_pc.createNewFile ();
house_laptops.createNewFile ();
gaming_laptops.createNewFile ();
office_pc.createNewFile ();
office_laptops.createNewFile ();
student_laptop.createNewFile ();
student_pc.createNewFile ();
gaming_pc.createNewFile ();

while (true) {
    System.out.println ( "Press 1 for ADMIN \n" +
        "Press 2 for CUSTOMER: \n" +
        "Press 0 to EXIT: " );

    Scanner input = new Scanner ( System.in );
    String b = "";
    while (true) {
        b = input.next ().toUpperCase ();
        if (b.length () == 1 && ( b.equals ( "1" ) || b.equals ( "2" ) || b.equals ( "0" ) ))
            break;
        else
            System.out.println ( "Enter valid input as 1 or 2" );
    }

    if (b.equals ( "0" ))
        break;
}
```

Figure 1: Main Menu

1.5.1 Sign In for Admin

After the user selects the option from the main menu the admin block appears and asks the admin to log in or exit the program, if the admin chooses to log in the program then displays a set of designations from which the admin is asked to choose. After entering right password and username admin is logged in successfully.

```

if (b.equals ( "1" )) {
    System.out.println ( "-----" );
    System.out.println ( "          ADMIN" );
    System.out.println ( "-----" );
    while (true) {
        System.out.print ( "Enter username:" );
        String username = input.next ();
        System.out.print ( "Enter password:" );
        String password = input.next ();
        File FW4 = new File ( pathname: "AdminPass.txt" );
        File FW5 = new File ( pathname: "AdminUsername.txt" );

        try {
            FW4.createNewFile ();
            FW5.createNewFile ();
        } catch (IOException e) {
            e.printStackTrace ();
        }
        try {
            Scanner sc1 = new Scanner ( FW4 );
            Scanner sc2 = new Scanner ( FW5 );
            String check1 = sc1.nextLine ();
            String check2 = sc2.nextLine ();
            if (username.equals ( check2 )) {

```

Figure 2: Sign in For Admin

```

        try {
            FW4.createNewFile ();
            FW5.createNewFile ();
        } catch (IOException e) {
            e.printStackTrace ();
        }
        try {
            Scanner sc1 = new Scanner ( FW4 );
            Scanner sc2 = new Scanner ( FW5 );
            String check1 = sc1.nextLine ();
            String check2 = sc2.nextLine ();
            if (username.equals ( check2 )) {
                if (password.equals ( check1 )) {
                    System.out.println ( "-----" );
                    System.out.println ( " Login Successfully!" );
                    System.out.println ( "-----" );
                    break;
                }
            }

            System.out.println ( "Invalid password or username!" );
        } catch (FileNotFoundException e) {
            e.printStackTrace (); // stackTrace is a method
        }
    }
}

```

Figure 3: Sign in for Admin

1.5.1.1 Administration Control

After the Admin verifies the details administration control will appear for the Admin which will allow admin to perform multiples tasks like adding or deleting any product and then storing it in a permanent file.

```

System.out.println ( "Enter 1 to add new Pc: \n" +
    "Enter 2 to add new Laptop: \n" +
    "Enter 3 to remove PC \n" +
    "Enter 4 to remove Laptop: " );
int choice;

while (true) {
    try {
        choice = input.nextInt ();
        if (choice >= 1 && choice <= 4)
            break;
        else
            System.out.println ( "Enter valid number to proceed: " );
    } catch (InputMismatchException e) {
        String str = input.next ();
        System.out.println ( "Enter valid input to proceed: " );
    }
}
String blank = input.nextLine ();
if (choice == 1) {

    while (true) {
        System.out.println ( "Enter 1 to add Students PC, \n" +
            "Enter 2 to add Gaming PC, \n" +
            "Enter 3 to add Office PC , \n" +
            "Enter 4 to add Home PC, \n" );
    }
}

```

Figure 4: Adding the Product

```

while (true) {
    System.out.println ( "Enter 1 to remove students PC, \n" +
        "Enter 2 to remove Gaming PC, \n" +
        "Enter 3 to remove Office PC , \n" +
        "Enter 4 to remove Home PC, \n" +
        "Enter 0 to exit to previous menu: " );

    int ch;

    while (true) {
        try {
            ch = input.nextInt ();
            if (ch >= 0 && ch <= 4) {
                break;
            } else System.out.println ( "Enter valid input from 0 to 4: " );
        } catch (InputMismatchException e) {
            String str = input.next ();
            System.out.println ( "Enter valid Input: " );
        }
    }

    if (ch == 1) {

        remove ( student_pc );

    } else if (ch == 2) {

```

Figure 5: Removing the Product

1.5.2 Log in For Customer

After the user selects the option from the main menu the module of customer will appear which will further asks the user for Sign In for customer. Upon selection of choice the next task will be performed. Suppose if user chooses Sign In then after verifying the credentials of the customer and after verifying the details in backend that is txt files it will executes further.

```

if (b.equals ( "2" )) {
    Scanner sc = new Scanner ( System.in );
    while (true) {
        System.out.print ( "Enter username:" );
        String username = sc.next ();
        System.out.print ( "Enter password:" );
        String password = sc.next ();
        File FW1 = new File ( pathnames: "Password.txt" );
        File FW2 = new File ( pathnames: "Username.txt" );
        File FW3 = new File ( pathnames: "order.txt" );

        try {
            FW1.createNewFile ();
            FW2.createNewFile ();
            FW3.createNewFile ();
        } catch (IOException e) {
            e.printStackTrace ();
        }

        try {
            Scanner sc1 = new Scanner ( FW1 );
            Scanner sc2 = new Scanner ( FW2 );
            String check1 = sc1.nextLine ();
            String check2 = sc2.nextLine ();
            if (username.equals ( check2 )) {
                if (password.equals ( check1 )) {
                    System.out.println ( "Login Successfully!" );
                    break;
                }
            }
        }
    }
}

```

Figure 6: Log in for Customer

```

System.out.println ();
System.out.println ( "Press 1 to change Username and password:" );
System.out.println ( "Press 2 to proceed further" );
// String a = input.next();
String aa = "";
while (true) {
    aa = input.next ().toUpperCase ();
    if (aa.length () == 1 && aa.equals ( "1" ) || aa.equals ( "2" ))
        break;
    else
        System.out.println ( "Enter valid input" );
}
if (aa.equals ( "1" )) {
    try {
        FileWriter FW1 = new FileWriter ( fileName: "Password.txt" );
        FileWriter FW2 = new FileWriter ( fileName: "Username.txt" );
        System.out.println ( "Enter new password:" );
        String pass = sc.next ();
        System.out.println ( "Enter new Username:" );
        String user = sc.next ();
        FW1.write ( pass );
        FW2.write ( user );
        FW1.close ();
        FW2.close ();
        System.out.println ( "Password changed Successfully!" );
    } catch (IOException e) {
        e.printStackTrace ();
    }
}

```

Figure 7: Log in for Customer

1.5.2.1 Menu for Customer:

After the Customer verifies the details, a new main menu for the Customer will appear which will perform multiples tasks like selection of used /new Laptop/PC of your choice for house, office, gaming and students.

```

Intro ();
Scanner in2 = new Scanner ( System.in );
System.out.println ( "Enter Your Choice:" );
String Field = "";
while (true) {
    Field = in2.next ().toUpperCase ();
    if (Field.length () == 1 && ( Field.equals ( "G" ) || Field.equals ( "H" ) || Field.equals ( "O" ) || Field.equals ( "S" ) ))
        break;
    else
        System.out.println ( "Enter valid input as G,H,S,or O" );
}

while (true) {
    if (Field.equals ( "S" )) {
        System.out.println ( "-----" );
        System.out.println ( "Welcome to STUDENT PC/LAPTOP Choice" );
        System.out.println ( "-----" );
        simple ();
        String choice = "";
        while (true) {
            choice = in2.next ().toUpperCase ();
            if (choice.equals ( "L" ) || choice.equals ( "P" )) break;
            else
                System.out.println ( "Enter L or P as input: " );
        }
        if (choice.equals ( "L" )) {
            SlpList ();
        }
    }
}

```

Figure 8: Menu for Customer

```

if (Field.equals ( "O" )) {
    System.out.println ( "-----" );
    System.out.println ( "Welcome to OFFICE PC/LAPTOP Choice" );
    System.out.println ( "-----" );
    simple ();
    String choice = "";
    while (true) {
        choice = in2.next ().toUpperCase ();
        if (choice.equals ( "L" ) || choice.equals ( "P" ))
            break;
        else
            System.out.println ( "Enter L or P as input: " );
    }
    if (choice.equals ( "L" )) {
        OlpList ();
        break;
    } else if (choice.equals ( "P" )) {
        OpcList ();
        break;
    }
}

if (Field.equals ( "H" )) {
    System.out.println ( "-----" );
    System.out.println ( "Welcome to HOME/PERSONAL PC/LAPTOP Choice" );
}

```

Figure 9: Menu for Customer

1.5.2.2 Payment:

After selecting payment module user will be asked whether he wants to pay cash on delivery or he wants to pay through credit card. If he selects to pay through credit card he will be asked to enter the credit card number and then it's validity will be checked.

```
System.out.println ( " PAYMENT" );
System.out.println ( "-----" );
System.out.println ( "Press:" );
System.out.println ( "(1) Through Credit Card" );
System.out.println ( "(2) Cash on Delivery" );
String in = "";
while (true) {
    in = in2.next ();
    if (in.length () == 1 && in.equals ( "1" ) || in.equals ( "2" )) {
        break;
    } else {
        System.out.println ( "Enter valid input 1 or 2" );
    }
}

if (in.equals ( "1" )) {
    System.out.println ( "Enter your Credit card number: " );
    String CN = in2.next ();
    while (true) {
        if (( ( CN.length () ) >= 13 ) && ( CN.length () <= 16 )) {
            System.out.println ( "Your credit number " + CN + " is Valid" );
            System.out.println ( "Payment Successful" );
            break;
        } else {
            System.out.println ( "Your credit number " + " is Not Valid" + "\nEnter Again:" );
            CN = in2.next ();
        }
    }
}
```

Figure 10: Payment Method

1.5.2.3 Delivery:

In this module user will be asked to enter hi adress and phone number for delivery of the product and then his product will be dispatched within five working days.

```
if (in.equals ( "2" )) {

    System.out.println ( "-----" );
    System.out.println ( " ADDRESS" );
    System.out.println ( "-----" );
    System.out.println ( "Enter phone number:" );
    String PN = in2.next ();
    System.out.println ( "Enter your Address:" );
    String AD = in2.nextLine ();
    AD = in2.next ();
    System.out.println ( "Your Product will be delivered in 5 working Days" );
}
```

Figure 11: Delivery

1.5.2.4 Order Number Generation and Cancellation of order:

After the user has selected his product and an order number will be generated and will be stored in txt.file.

If user changes hi mind and wants to cancel his order,cancellation of order module will appear and user's order number will be deleted from the txt.file.

```
Random rand = new Random ();
int r = rand.nextInt ( bound: 99 );
r = r + 1;
String A = r + "";
System.out.println ( "your order number is " + A );
System.out.println ( "\nCancellation of Order" );
try {
    FileWriter FW3 = new FileWriter ( fileName: "order.txt", append: true ); //true = file update
    System.out.println ( "If you want to delete the order number please enter '1' or Press any other key to proceed further: " );
    Scanner sc2 = new Scanner ( System.in );
    int value = sc2.nextInt ();
    if (value == 1) {
        System.out.println ( "Order Cancelled" );
    } else {
        FW3.write ( str: A + "\n" );
    }

    FW3.close ();

} catch (IOException e) {
    e.printStackTrace ();
}
```

Figure 12: Order Number Generation and Cancellation

1.5.2.5 Suggestions and Complaints:

In this module user will be asked if he wants give any suggestions regarding the product or services. User will be asked if he has any complaints also regarding the product for example if the product is faulty/damaged or if wrong order has dispatched, if the the product is delivered late or if he has any other complaints he can mention there.

```
System.out.println ( "Enter Your Suggestions:" );
String sug = in2.nextLine ();
sug = in2.nextLine ();
System.out.println ( "Thank you for your Suggestions" );
System.out.println ( "-----" );
System.out.println ( "COMPLAINTS" );
System.out.println ( "-----" );
System.out.println ( "Press:" );
System.out.println ( "(1) For Late Delivery" );
System.out.println ( "(2) For Wrong Order" );
System.out.println ( "(3) Faulty/Damaged Product" );
System.out.println ( "(4) Others" );
String sug_com = "";
while (true) {
    sug_com = in2.next ();
    if (sug_com.length () == 1 && ( sug_com.equals ( "1" ) || ( sug_com.equals ( "2" ) || ( sug_com.equals ( "3" ) || ( sug_com.equals ( "4" ) ) ) )
        break;
    else {
        System.out.println ( "Enter valid input" );
    }
}
if (sug_com.equals ( "1" )) {
    System.out.println ( "How late was your delivery ?" );
    String D = in2.next ();
    System.out.println ( "Thank you for your complaints." );
}
```

Figure 13: Suggestions and Complaints

1.6 OUTPUT:

```

-----
Press 1 for ADMIN
Press 2 for CUSTOMER:
Press 0 to EXIT:
-----
1
-----
ADMIN
-----
Enter username:hassan
Enter password:123
-----
Login Successfully!
-----
Enter 1 to add new Pc:
Enter 2 to add new Laptop:
Enter 3 to remove PC
Enter 4 to remove Laptop:
|

```

```

-----
COMPLAINTS
-----
Press:
(1) For Late Delivery
(2) For Wrong Order
(3) Faulty/Damaged Product
(4) Others
5
Enter valid input
3
Explain about your order:
I ordered a core i 5 laptop but i received core i5 pc
We are Sorry for the Damaged Product
We will soon replace your order.
Thank you for your complaints.
We will do our best to avoid such inconvenience in Future.
-----
Press 1 for ADMIN
Press 2 for CUSTOMER:
Press 0 to EXIT:
-----
|

```

```

-----
Press 1 for ADMIN
Press 2 for CUSTOMER:
Press 0 to EXIT:
-----
2
-----
Enter username:hassan
Enter password:123
Login Successfully!
-----
Press 1 to change Username and password:
Press 2 to proceed further
2
-----
Welcome To Laptop/PC Choice
-----
Press 'S' To check PC/Laptops for Students
Press 'H' To check PC/Laptops for HOME
Press 'G' To check PC/Laptops for GAMING
Press 'O' To check PC/Laptops for OFFICE
Enter Your Choice:
|

```

```

PRESS
L ==> FOR LAPTOPS
P ==> FOR PC
P
-----
(1) Intel Dual Core 6th Gen G4400,RAM:8GB,HDD: 1TB,Price: RS 50000
(2) Intel i5 4th Gen,RAM:12GB,HDD: 500GB,GPU:GTX 1650,Price: RS 85000
(3) Dell Core i7 5th Gen,RAM:12GB,HDD: 1TB,GPU:GTX 1060 Ti 2GB,Price: RS 100000
(4) AMD X6,RAM:4GB,HDD: 500GB,GPU:GTX 580Price: RS 30000
(5) Intel Xeon E3,RAM:8GB,HDD: 1TB,GPU:AMD Radeon RX 580 2GB,Price: RS 50000
(6) Ryzeen 5 2600,RAM:8GB,HDD: 250B,SSD:128GB,GPU:XFX RX 560,Price: RS 100000
(7) mohsin kamal
-----
Select Your Choice i.e 1 ,2 or 3
2
(2) Intel i5 4th Gen,RAM:12GB,HDD: 500GB,GPU:GTX 1650,Price: RS 85000
-----
PAYMENT
-----
Press:
(1) Through Credit Card
(2) Cash on Delivery
|

```

```
-----  
PAYMENT  
-----  
Press:  
(1) Through Credit Card  
(2) Cash on Delivery  
1  
Enter your Credit card number:  
210885521  
Your credit number is Not Valid  
Enter Again:  
2189034465123  
Your credit number 2189034465123 is Valid  
Payment Successful
```

```
Payment Successful  
your order number is 68  
  
Cancellation of Order  
To Cancel order enter '1' or Press 2 to proceed further:  
5  
enter valid input  
1  
Order Cancelled
```

```
-----  
SUGGESTIONS  
-----
```

```
Enter Your Suggestions:
```

```
Try making this Project GUI bases next semester
```

```
Thank you for your Suggestions  
-----
```