

EXPT NO:

DATE:

ONLINE SHOPPING CAR

AIM:

To develop a java program for online shopping cart and check whether the customer will have the sufficient fund for purchase of items (use double data type).

ALGORITHM: Step -1: Start the program

Step -1: Import the necessary Java library for user input.

Step -2: Create a class and the main method.

Step -3: Create Scanner object for user input

Step -4: Get input from user

Step -5: Declare the price of items

Step -6: Initialize Total_price variable

Step -7: Use switch statement to determine price of item

Step -8: Check whether the available funds are sufficient to purchase

Step -9: Display remaining balance and close the class.

Step -10: Stop the program.

SCRIPT:

```
public class ShoppingCart {
    public static void main(String[] args) {
        Scanner shop = new Scanner(System.in);
        System.out.println("Enter the available funds:");
        double fund_avail = shop.nextDouble();
        double apple = 35.67;
        double banana = 56.34;
        double mango = 35.0;
        System.out.println("Enter the item you want to buy
            (1(apple), 2(banana), 3(mango)):");
        int item_pun = shop.nextInt();
        double Total_pprice = 0.0;
        switch(item_pun) {
            case 1:
                Total_pprice = apple;
                break;
            case 2:
                Total_pprice = banana;
                break;
            case 3:
                Total_pprice = mango;
                break;
        }
        System.out.println("How many items you want:");
        int count = shop.nextInt();
        Total_pprice = count * Total_pprice;
        if(fund_avail < Total_pprice) {
            System.out.println("Insufficient balance!");
        } else {
            System.out.println("Purchase successful!");
        }
    }
}
```

double Balance = fund_avail - Total_price;
System.out.println ("Your balance amount is: "+Balance);
shop.close();

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RESULT:

Thus the program to develop a online shopping cart
and to check whether the customer will have the sufficient fund for
purchase of items has been verified and executed successfully.

EXPT NO:

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LOGIN PAGE

AIM:

To develop a program to design a login page and validate the user credentials (password and username) and validate whether the user is authorized or not.

ALGORITHM:

- Step -1: Start the program
- Step -2: Import the Java library for user input
- Step -3: Create a class and the main method
- Step -4: Create a Scanner object for input
- Step -5: Assign the username and password for variables
- Step -6: Get the username and password from user
- Step -7: If username and password matches, display login successful else display invalid username & invalid password
- Step -8: Close the login class
- Step -9: Display result
- Step -10: Stop the program

SCRIPT:

```
import java.util.Scanner;
public class LoginPage2
public static void main(String[] args) {
    Scanner login = new Scanner(System.in);
    String username = "22CB04S";
    String password = "1234";
    System.out.println("Welcome to login page! Enter your
credentials:");
    System.out.println("Enter your username:");
    String user_name = login.nextLine();
    System.out.println("Enter your password:");
    String pass_word = login.nextLine();
    if (!username.equals(user_name)) {
        System.out.println("Invalid username!");
    } else if (!password.equals(pass_word)) {
        System.out.println("Invalid password!");
    } else {
        System.out.println("Login successful!");
    }
    login.close();
}
```

RESULT:

Thus the program to design a login page and validate the user credentials (password and username) and validate whether the user is authorized or not has been verified and executed successfully.

EXPT NO:

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LIBRARY MANAGEMENT SYSTEM

AIM:

To develop a Library Management System to validate the user and check for the availability of books.

ALGORITHM:

- Step -1: Start the program
- Step -2: Import the necessary Java library for getting user input
- Step -3: Declare the class & main method
- Step -4: Declare the variables required
- Step -5: Check for user's authentication
- Step -6: Check for Book availability
- Step -7: Print the required messages
- Step -8: Close the scanner
- Step -9: Stop the program

SERIES:

SCRIPT:

```

import java.util.Scanner;
public class Library {
    public static void main(String[] args) {
        Scanner lib = new Scanner(System.in);
        String connect_username = "user123";
        String connect_password = "password123";
        String[] booktitles = {"Book 1", "Book 2", "Book 3"};
        boolean[] book_avail = {true, true, false};
        System.out.println("Welcome to the library");
        System.out.println("Enter your username:");
        String entered_username = lib.nextLine();
        System.out.println("Enter your password:");
        String entered_password = lib.nextLine();
        if (entered_username.equals(connect_username) && entered_password.equals(connect_password)) {
            System.out.println("Authentication successful!");
            System.out.println("Do you want to check availability of books?");
            String choice = lib.nextLine();
            if (choice.equalsIgnoreCase("yes")) {
                System.out.println("The books available are: Book1, Book2, Book3");
                String book_title = lib.nextLine();
            }
        }
    }
}

```

```

int index = -1;
for (int i=0; i<booktitles.length; i++) {
    if (booktitles[i].equals(bookTitle)) {
        index = i;
        break;
    }
}
if (index != -1) {
    if (bookAvail[index]) {
        System.out.println("Available");
    } else {
        System.out.println("Checked out");
    }
} else {
    System.out.println("Not found");
}
}
else {
    System.out.println("Not found");
}
}
else {
    System.out.println("Authentication failed");
}
lib.close();
}

```

RESULT:

Thus the program to develop a library management system that validates the user and checks the availability of books has been verified & executed successfully.

EXPT NO:

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TRAFFIC LIGHT SYSTEM

AIM:

To develop a program for traffic light control system.

ALGORITHM:

- Step -1: Start the Program
- Step -2: Declare the class and Main methods
- Step -3: Declare the light durations
- Step -4: Declare the light simulation loop
- Step -5: Display each light and give the sleep durations for each light
- Step -6: Declare the sleep method
- Step -7: Display the necessary lights
- Step -8: Stop the program

SCRIPT:

```
public class Light {
    public static void main (String [] args) {
        int red = 5;
        int green = 5;
        int yellow = 2;
        while (true) {
            System.out.println ("Red light");
            sleep (red);
            System.out.println ("Green light");
            sleep (green);
            System.out.println ("Yellow light");
            sleep (yellow);
        }
    }
}
```

```
private static void sleep (int seconds) {
    try {
        Thread.sleep (seconds * 1000);
    } catch (InterruptedException e) {
        e.printStackTrace ();
    }
}
```

RESULT:

Thus the program to develop a traffic light system has been verified and executed successfully.