Flowchart:- // prepared by Nisarg

Hierarchy:-

Assignment1

| -wall_area()

|-door_area()

|-window_area()

|-main

Code:-

```
public class Assignment1 {
  // Coded by Krishna
  public static double wall_area(Scanner sc)
  {
    System.out.println("Enter height,width of wall in feet and Number of walls");
    double wall_height=sc.nextDouble();
    double wall_width=sc.nextDouble();
    int walls=sc.nextInt();
    return wall_height*wall_width*walls;
  }
    public static double door_area(Scanner sc)
  {
    System.out.println("Enter height,width of door in feet and Number of door");
    double door_height=sc.nextDouble();
    double door_width=sc.nextDouble();
    int doors=sc.nextInt();
    return door_height*door_width*doors;
  }
```

```
    public static double window_area(Scanner sc)
    {
   System.out.println("Enter height,width of door in feet and number of windows");
   double window_height=sc.nextDouble();
   double window_width=sc.nextDouble();
   int windows=sc.nextInt();
   return window_height*window_width*windows;

}
    public static final int LabourWorkHours=8;
    public static final int LabourWorkCost=20;
    public static final int PerGalloons=300;

        // coded by Vedant
   public static void main(String[] args)
   {

    Scanner sc=new Scanner(System.in);
   double wall_area=wall_area(sc);
   double door_area=door_area(sc);
   double window_area=window_area(sc);
   double area_color=wall_area-door_area-window_area;

   System.out.println("Square feet of Walls = " + wall_area);
   System.out.println("Square feet of Doors = " + door_area);
   System.out.println("Square feet of Windows = " + window_area);
```

```
        System.out.println("Area to be painted = " + area_color);

        System.out.println("Price of paint per galloon?");
        int paint_cost=sc.nextInt();

        int paint_req=(int)(Math.round(area_color / PerGalloons));
        int lab_hrs= (paint_req * LabourWorkHours);
        double lab_cost=lab_hrs*LabourWorkCost;
        double cost=paint_req*paint_cost;
        System.out.println("Price of painting = " + cost);
        double totalpaintcost=lab_cost+cost;

        System.out.println("Number of galloons = " + paint_req);
        System.out.println("Hours of painting = " + lab_hrs);
        System.out.println("Cost of painting per galloon = " + paint_cost);
        System.out.println("Labour cost = " + lab_cost);
        System.out.println("Total cost of painting = " + totalpaintcost);
        }
}
```

Output

```
cd C:\Users\krish\Desktop\Krishna\Study\Algorithm\Assignment\Assignment\Assignment1; JAVA_HOME=C:\\Users\\krish\\Desktop\\Krishna\\Study\\Algorithm\\jdk-23 cmd /c "\"C:\\Progr
Enter height,width of wall in feet and Number of walls
8 10 8
Enter height,width of door in feet and Number of door
8 3 4
Enter height,width of door in feet and number of windows
2 1 5
Square feet of Walls = 640.0
Square feet of Doors = 96.0
Square feet of Windows = 10.0
Area to be painted = 534.0
Price of paint per galloon?
75
Price of painting = 150.0
Number of galloons = 2
Hours of painting = 16
Cost of painting per galloon = 75
Labour cost = 320.0
Total cost of painting = 470.0
```

Output - Run (Assignment1) X

```
cd C:\Users\krish\Desktop\Krishna\Study\Algorithm\Assignment\Assignment\Assignment1; JAVA_HOME=C:\\Users\\krish\\Desktop\\Krishna\\Study\\Algorithm\\jdk-23 cmd /c "\"C:\\Progr
Enter height,width of wall in feet and Number of walls
9 10 4
Enter height,width of door in feet and Number of door
8 3 2
Enter height,width of door in feet and number of windows
3 2 2
Square feet of Walls = 360.0
Square feet of Doors = 48.0
Square feet of Windows = 12.0
Area to be painted = 300.0
Price of paint per galloon?
50
Price of painting = 50.0
Number of galloons = 1
Hours of painting = 8
Cost of painting per galloon = 50
Labour cost = 160.0
Total cost of painting = 210.0
```