

Assignment

1) import java.util.*;

class Height

{

private int feet;

private int inches;

public void getDistance()

{

Scanner sc=new Scanner(System.in);

System.out.print("Enter feet: ");

feet=sc.nextInt();

System.out.print("Enter inches: ");

inches=sc.nextInt();

}

public void showDistance()

{

System.out.println("Feet: "+ feet + "\tInches: "+ inches);

}

public void addDistance(Height H1, Height H2)

{

inches=H1.inches+H2.inches;



```
        feet=H1.feet+H2.feet+(inches/12);  
        inches=inches%12;  
    }  
}
```

```
public class Main
```

```
{
```

```
    public static void main(String []s)
```

```
    {
```

```
        try
```

```
        {
```

```
            Height H1=new Height();
```

```
            Height H2=new Height();
```

```
            Height H3=new Height();
```

```
            //read first Height
```

```
            System.out.println("Author:M.Sunayana\nSAP ID:51834790");
```

```
            System.out.println("Enter first Height: ");
```

```
            H1.getDistance();
```

```
            //read second Height
```

```
            System.out.println("Enter second Height: ");
```

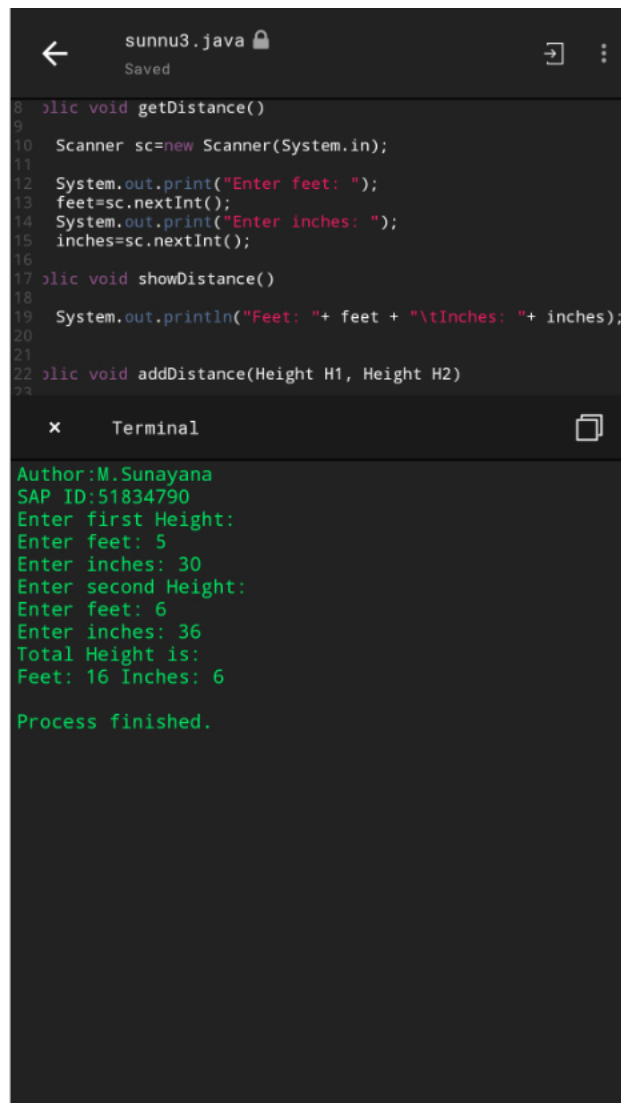
```
            H2.getDistance();
```



```
        //add heights
        H3.addDistance(H1,H2);

        //print Height
        System.out.println("Total Height is:" );
        H3.showDistance();
    }
    catch (Exception e)
    {
        System.out.println("Exception occurred :"+ e.toString());
    }
}
}
```





```
8 public void getDistance()
9
10 Scanner sc=new Scanner(System.in);
11
12 System.out.print("Enter feet: ");
13 feet=sc.nextInt();
14 System.out.print("Enter inches: ");
15 inches=sc.nextInt();
16
17 public void showDistance()
18
19 System.out.println("Feet: "+ feet + "\tInches: "+ inches);
20
21
22 public void addDistance(Height H1, Height H2)
23
```

Terminal

```
Author:M.Sunayana
SAP ID:51834790
Enter first Height:
Enter feet: 5
Enter inches: 30
Enter second Height:
Enter feet: 6
Enter inches: 36
Total Height is:
Feet: 16 Inches: 6

Process finished.
```

2) abstract class Furniture {

protected String color;

protected int width;

protected int height;

public abstract void accept();

public abstract void display();

}



```
class chair extends Furniture {  
  
    private int numOf_legs;  
  
  
    public void accept() {  
  
  
        color = "Brown";  
        width = 36;  
        height = 48;  
        numOf_legs = 4;  
    }  
  
    public void display() {  
        System.out.println("DISPLAYING VALUE FOR CHAIR");  
        System.out.println("=====");  
        System.out.println("Color is" + color);  
        System.out.println("Width is" + width);  
        System.out.println("Height is" + height);  
        System.out.println("Number of legs is" + numOf_legs);  
        System.out.println(" ");  
    }  
}
```

```
class Bookshelf extends Furniture {  
  
  
    private int numOf_shelves;
```



```

public void accept() {

    color ="Black";

    width = 72;

    height = 84;

    numOf_shelves = 4;

}

public void display () {

    System.out.println("DISPLAYING VALUES FOR BOOKSHELF");

    System.out.println

    ("=====");

    System.out.println("Color is" + color);

    System.out.println("Width is" + width);

    System.out.println("Height is" + height);

    System.out.println("Number of shelves is" + numOf_shelves);

    System.out.println(" ");

}

}

class FurnitureDemo {

    public static void main(String[] args) {

        Bookshelf b1 = new Bookshelf();

        b1.accept();

        b1.display();
    }
}

```



```
chair c1 = new chair ();
```

```
c1.accept();
```

```
c1.display();
```

```
}
```

```
}
```



```
← heindoe.java Saved
14 color = "Brown";
15 width = 36;
16 height = 48;
17 numOf_legs = 4;
18 }
19 public void display() {
20 System.out.println("DISPLAYING VALUE FOR CHAIR");
21 System.out.println("=====");
22 System.out.println("Color is" + color);
23 System.out.println("Width is" + width);
24 System.out.println("Height is" + height);
25 System.out.println("Number of legs is" + numOf_legs);
26 System.out.println(" ");
27 }
28 }
29
30 class Bookshelf extends Furniture {
31 private int numOf_shelves;
32
33 public void accept() {
34
35 color = "Black";
36 width = 72;
37 height = 84;
38 numOf_shelves = 4;
39 }
40
41 public void display() {
42
43 System.out.println("DISPLAYING VALUES FOR BOOKSHELF");
44 System.out.println("=====");
45 System.out.println("Color isBlack");
46 System.out.println("Width is72");
47 System.out.println("Height is84");
48 System.out.println("Number of shelves is4");
49
50 System.out.println("DISPLAYING VALUE FOR CHAIR");
51 System.out.println("=====");
52 System.out.println("Color isBrown");
53 System.out.println("Width is36");
54 System.out.println("Height is48");
55 System.out.println("Number of legs is4");
56
57 System.out.println("Process finished.");
58 }
59 }
```

3) import java.util.*;

class Main

{

public static int[] remove(int[] x, int key) {

List<Integer> result = new ArrayList<>();




```

        for (int y: x) {
            if (y != key) {
                result.add(y);
            }
        }

        return result.stream()
            .mapToInt(Integer::intValue)
            .toArray();
    }

    public static void main(String[] args) {
        int[] x = { 1, 4, 1, 3, 1, 2, 1, 0 };
        int key = 1;

        x = remove(x, key);

        System.out.println("Author:M.Sunayana\nSAP ID:51834790");
        System.out.println(Arrays.toString(x));
    }
}

```



```
1  import java.util.*;
2
3  class Main
4
5      public static int[] remove(int[] x, int key) {
6
7          List<Integer> result = new ArrayList<>();
8
9          for (int y: x) {
10              if (y != key) {
11                  result.add(y);
12              }
13          }
14
15          return result.stream()
16                      .mapToInt(Integer::intValue)
17                      .toArray();
18      }
19
20      public static void main(String[] args) {
21          int[] x = { 1, 4, 1, 3, 1, 2, 1, 0 };
22          int key = 1;
23
24          x = remove(x, key);
25          System.out.println("Author:M.Sunayana\nSAP ID:51834790");
26          System.out.println(Arrays.toString(x));
27      }
28
```

Terminal

```
Author:M.Sunayana
SAP ID:51834790
[4, 3, 2, 0]

Process finished.
```

4) public class Main

{

 public static void main(String[] args)

 {

 int i,j,k;



```

for(i=1;i<=5;i++)
{
    for(j=5;j>i;j--)
    {
        System.out.print(" ");
    }
    if(i%2!=0)
    {
        for(j=1,k=1;j<=2*i-1;j++)
        {
            if(j<i)
            {
                System.out.print(k);
                k++;
            }
            else
            {
                System.out.print(k);
                k--;
            }
        }
    }
    else
    {
        for(j=1,k=i;j<=2*i-1;j++)

```



```
{  
    if(j<i)  
    {  
        System.out.print(k);  
        k--;  
    }  
    else  
    {  
        System.out.print(k);  
        k++;  
    }  
}  
    System.out.println();  
}  
}
```



←bdie.javaSaved

```
1 public class Main
2 {
3     public static void main(String[] args)
4     {
5         int i,j,k;
6         for(i=1;i<=5;i++)
7         {
8             for(j=5;j>i;j--)
9             {
10                 System.out.print(" ");
11             }
12             if(i%2!=0)
13             {
14                 for(j=1,k=1;j<=2*i-1;j++)
15                 {
16                     if(j<i)
17                     {
18                         System.out.print(k);
19                         k++;
20                     }
21                     else
22                     {
23                         System.out.print(k);
24                         k--;
25                     }
26                 }
27             }
28             else
29             {
30                 for(j=1,k=i;j<=2*i-1;j++)
31                 {
32                     if(j<i)
33                     {
34                         System.out.print(k);
35                         k--;
36                     }
37                     else
38                     {
39                         System.out.print(k);
40                         k++;
41                     }
42                 }
43             }
44         }
45     }
46 }
```

×Terminal

1
212
12321
4321234
123454321

Process finished.