

B. Dakshayani_july_31

2nd question and answer

```
1
2  abstract class Furniture {
3
4      protected String color;
5      protected int width;
6      protected int height;
7      public abstract void accept();
8      public abstract void display();
9  }
10     class chair extends Furniture {
11     private int numOf_legs;
12
13     public void accept() {
14
15         color = "Brown";
16         width = 36;
17         height = 48;
18         numOf_legs = 4;
19     }
20     public void display() {
21     System.out.println("DISPLAYING VALUE FOR CHAIR");
22     System.out.println("=====");
23     System.out.println("Color is" + color);
24     System.out.println("Width is" + width);
25     System.out.println("Height is" + height);
26     System.out.println("Number of legs is" + numOf_legs);
27     System.out.println(" ");
28     }
29     }
30
31     class Bookshelf extends Furniture {
32
33     private int numOf_shelves;
34
35     public void accept() {
36
37         color = "Black";
38         width = 72;
39         height = 84;
40         numOf_shelves = 4;
41     }
42     public void display () {
43     System.out.println("DISPLAYING VALUES FOR BOOKSHELF");
44     System.out.println("=====");
45     }
46 }
```



```

29 }
30
31 class Bookshelf extends Furniture {
32
33     private int numOf_shelves;
34
35     public void accept() {
36
37         color ="Black";
38         width = 72;
39         height = 84;
40         numOf_shelves = 4;
41     }
42     public void display () {
43         System.out.println("DISPLAYING VALUES FOR BOOKSHELF");
44         System.out.println("=====");
45
46         System.out.println("Color is" + color);
47         System.out.println("Width is" + width);
48         System.out.println("Height is" + height);
49         System.out.println("Number of shelves is" + numOf_shelves);
50         System.out.println(" ");
51     }
52 }
53
54
55 class FurnitureDemo {
56     public static void main(String[] args)
57     {
58         System.out.println("Host name:Dakshayani\nSAP:");
59         b1.accept();
60         b1.display();
61
62
63         chair c1 = new chair ();
64         c1.accept();
65         c1.display();
66
67     }
68 }
69

```



```
Terminal
Host name:Dakshayani
SAP:ID:51834500
DISPLAYING VALUES FOR BOOKSHELF
=====
Color isBlack
Width is72
Height is84
Number of shelves is4

DISPLAYING VALUE FOR CHAIR
=====
Color isBrown
Width is36
Height is48
Number of legs is4

Process finished.
```

3rd question and answer



```

1
2 import java.util.*;
3
4 class RemoveElement
5 {
6     public static int[] remove(int[] x, int key) {
7
8         List<Integer> result = new ArrayList<>();
9
10        for (int y: x) {
11            if (y != key) {
12                result.add(y);
13            }
14        }
15
16        return result.stream()
17            .mapToInt(Integer::intValue)
18            .toArray();
19    }
20
21    public static void main(String[] args) {
22        int[] x = { 2, 4, 1, 3, 6, 2, 4, 0 };
23        int key = 4;
24
25        x = remove(x, key);
26        System.out.println("Host name:Dakshayani\nSAP ID:51834500");
27        System.out.println(Arrays.toString(x));
28    }
29 }

```

✕ Terminal



```

Host name:Dakshayani
SAP ID:51834500
[2, 1, 3, 6, 2, 0]

Process finished.

```

4th question and answer



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```
← PalindromePattern.java Saved
1
2 import java.util.*;
3 public class PalindromePattern
4 {
5     public static void main(String[] args)
6     {
7         int i,j,k;
8         Scanner sc=new Scanner(System.in);
9         System.out.println("Host name:Dakshayani\n");
10        System.out.println("enter no.of rows");
11
12        int n=sc.nextInt();
13
14        for(i=0; i<n; i++)
15        {
16            //inotializing k as one
17            k=1;
18            for(j=0; j<(n+i); j++)
19            {
20                if(j<n-i-1)
21                    //prints space in the less than n-i-
22                    System.out.print(" ");
23                else
24                {
25                    // else prints k
26                    System.out.print(+ k);
27                    if(j<(n-1))
28                        // if j is greater than n-1
29                        //increases to k+1
30                        k++;
31
32                    else
33                        //if not k as k-1
34                        k--;
35                }
36            }
37            System.out.println(" ");
38        }
39    }
40
41
42 }
```



```
← PalindromePattern.java Saved
x Terminal
Host name:Dakshayani
SAP:ID:51834500
enter no.of rows
5
  1
 121
12321
1234321
123454321
Process finished.
```

Mock assignment

Marks:-15



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