

CS433P Programming Paradigm Lab

DATE: 20-01-2023

EXPERIMENT NO 2

REGISTER NO: 2162014

IMPLEMENTATION OF CLASSES AND OBJECTS

AIM: Write a java program to create a class Distance with data members' feet and inches.

PROGRAM:

```
/**
 *
 * @author 2162014
 */
import java.util.Scanner;

class Distance {

    int feet, inch;

    Distance() {
        feet = 0;
        inch = 0;
    }

    Distance(int ft, int in) {
        feet = ft;
        inch = in;
    }

    void readDistance() {
        Scanner in = new Scanner(System.in);
        System.out.println("Enter the distance: ");
        System.out.println("Enter feet: ");
        feet = in.nextInt();
        System.out.println("Enter inch: ");
        inch = in.nextInt();
    }

    void printDistance() {
        System.out.println(feet + "\"" + inch + "\"");
    }

    void addDistance(Distance d) {
        feet = this.feet + d.feet;
        inch = this.inch + d.inch;
        if (inch > 11) {
            ++feet;
            inch -= 12;
        }
    }
}
```

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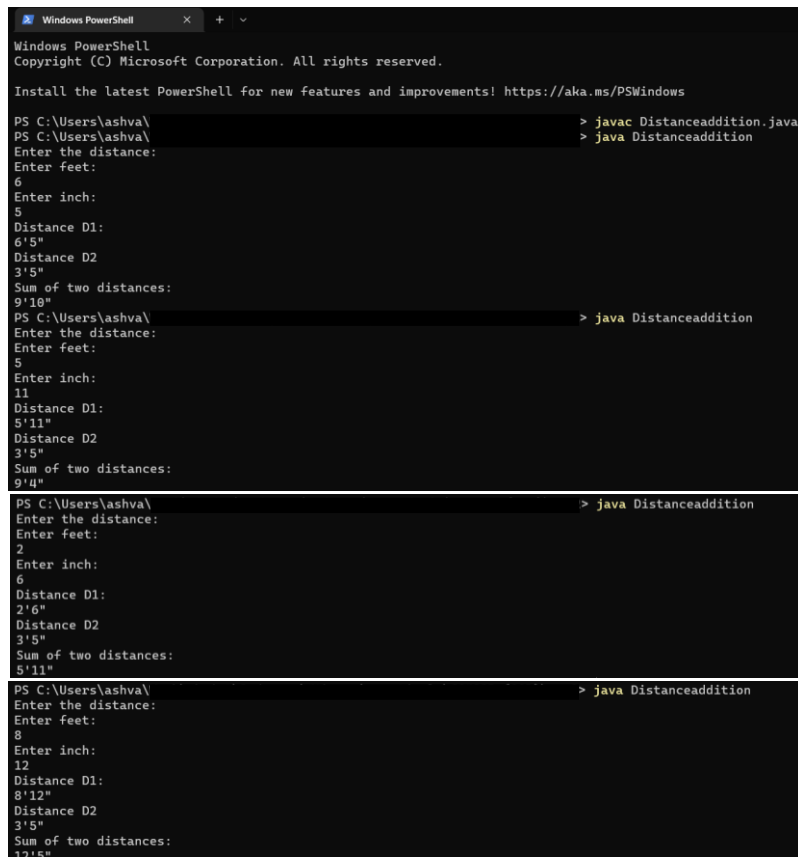
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```
}  
  
}  
  
public class Distanceaddition {  
  
    public static void main(String[] args) {  
        Distance d1 = new Distance();  
        Distance d2 = new Distance(3, 5);  
        d1.readDistance();  
        System.out.println("Distance D1:");  
        d1.printDistance();  
        System.out.println("Distance D2");  
        d2.printDistance();  
        System.out.println("Sum of two distances: ");  
        d1.addDistance(d2);  
        d1.printDistance();  
    }  
}
```

OUTPUTS:



```
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS C:\Users\ashva\ > javac Distanceaddition.java
PS C:\Users\ashva\ > java Distanceaddition
Enter the distance:
Enter feet:
6
Enter inch:
5
Distance D1:
6'5"
Distance D2
3'5"
Sum of two distances:
9'10"
PS C:\Users\ashva\ > java Distanceaddition
Enter the distance:
Enter feet:
5
Enter inch:
11
Distance D1:
5'11"
Distance D2
3'5"
Sum of two distances:
9'4"
PS C:\Users\ashva\ > java Distanceaddition
Enter the distance:
Enter feet:
2
Enter inch:
6
Distance D1:
2'6"
Distance D2
3'5"
Sum of two distances:
5'11"
PS C:\Users\ashva\ > java Distanceaddition
Enter the distance:
Enter feet:
8
Enter inch:
12
Distance D1:
8'12"
Distance D2
3'5"
Sum of two distances:
12'5"
```

RESULTS:

The java program was created successfully to demonstrate classes and objects.