Nathan Gaffney

09-October-2014

CST-183-FA110-14FA-COURSE

This program will convert meters into various units.

Step 1. Pseudocode

start

Kilo(meter)

{

Km= m \* .001

}

Miles(meter)

{

MI = m \*.00062137

}

Yards(meter)

{

M\*1.0936

}

Inches(meter)

{

M\*39.37

}

Feet(meter)

{

M\*3.281

}

Menu()

{

Case

Menu options

}

Main

{

Doub distance

String output

Case

Kilometers(distance)

Miles(distance)

Yards(distance)

Inches(distance)

Feet(distance)

End case

output

}

end

Step 3.

/\*\*  
Program NAme: Conversion Date:2-Oct-2014  
Programmer: Nathan Gaffney Class: CST 183  
Program Description:  
This program will use methods to convert user input  
1. Convert to kilometers  
2. Convert to miles  
3. Convert to yards  
4. Convert to inches  
5. Convert to feet  
ERRORS HANDLED: FIle not found thrown.  
Dependencies: No idea  
Methods:  
showKilometers  
showMiles  
showYards  
showInches  
showFeet  
menu   
\*/  
import java.util.Scanner;  
import java.io.\*;  
  
public class conversion  
{  
 /\*\*  
 This method will convert meters into miles  
 @m this is meters  
 @return convert and return simultaneously  
 \*/  
 public static double showMiles(double m)  
 {  
 return m \* 0.00062137;  
 }  
 /\*\*  
 THis method will convert meters to yards  
 @m this is meters  
 @return convert and return simultaneously  
 \*/  
 public static double showYards(double m)  
 {  
 return m \* 1.0936;  
 }  
 /\*\*  
 THis method will convert meters into Inches  
 @m this is meters  
 @return convert and return  
 \*/  
 public static double showInches(double m)  
 {  
 return m \* 39.37;  
 }  
 /\*\*  
 THis method will convert meters into feet  
 @m this is meters  
 @return convert and return  
 \*/  
 public static double showFeet(double m)  
 {  
 return m \* 3.281;  
 }  
 /\*\*  
 This method will convert meters into kilometers.  
 @m this is the number of meters  
 @return convert into meters and return simultaneoulsy  
 \*/  
 public static double showKilometers(double m)  
 {  
 return m\*0.001;  
 }  
 /\*\*  
 This method will display the menu for user  
 \*/   
 public static void menu()throws IOException  
 {  
 Scanner keyboard = new Scanner(System.in);  
 FileWriter fw = new FileWriter("conversion\_log.txt",true);  
 PrintWriter outputFile = new PrintWriter(fw);  
 String string="";  
 for(int i=1;i<=8;i++)  
 {  
 switch (i)  
 {  
 case 1:  
 string = "This is a distance converter.";  
 break;  
 case 2:  
 string = "Choose which unit to display.";  
 break;  
 case 3:   
 string = "1. Kilometers";  
 break;  
 case 4:  
 string = "2. Miles";  
 break;  
 case 5:  
 string = "3. Yards";  
 break;  
 case 6:  
 string = "4. Inches";  
 break;  
 case 7:  
 string = "5. Feet";  
 break;  
 case 8:  
 string = "6. Close Program";  
 break;  
 default:  
 System.out.println("Cataclysmic Failure.");  
 }  
 System.out.println(string);  
 outputFile.println(string);  
 }  
 fw.flush();  
 fw.close();  
 }  
 /\*\*  
 This method is the driver  
 \*/  
 public static void main(String args[])throws IOException  
 {  
 Scanner keyboard = new Scanner(System.in);  
 FileWriter fw = new FileWriter("conversion\_log.txt",true);  
 PrintWriter outputFile = new PrintWriter(fw);  
 int choice; //the user's choice  
 double distance = -1;  
 double result=0;  
 char letter='A';  
 String string="";  
 do  
 {  
 while (distance < 0)  
 {  
 System.out.print("Enter a distance in meters: ");  
 distance = keyboard.nextDouble();  
 }  
 menu();   
 choice = keyboard.nextInt();  
 outputFile.println(Integer.toString(choice));   
 switch (choice)  
 {  
 case 1:  
 result = showKilometers(distance);  
 string = " Kilometers";  
 break;  
 case 2:  
 result = showMiles(distance);  
 string = " miles";  
 break;  
 case 3:   
 result = showYards(distance);  
 string = " yards";  
 break;  
 case 4:  
 result = showInches(distance);  
 string = " inches";  
 break;  
 case 5:  
 result = showFeet(distance);  
 string = " feet";  
 break;  
 case 6:  
 letter = 'Y';  
 outputFile.close();  
 System.exit(0);  
 break;  
 default:  
 System.out.println("You did not enter a valid choice.");  
 }  
 outputFile.println(distance + " meters is " + result + string);  
 }while (letter != 'Y' && letter != 'y');  
 outputFile.close();  
 }  
}

ÏÏÏ  
ÏÏ«Ï ----jGRASP exec: java conversion  
ÏÏ§Ï  
¼¼§ÏEnter a distance in meters: 25  
ÏÏ§ÏThis is a distance converter.  
ÏÏ§ÏChoose which unit to display.  
ÏÏ§Ï1. Kilometers  
ÏÏ§Ï2. Miles  
ÏÏ§Ï3. Yards  
ÏÏ§Ï4. Inches  
ÏÏ§Ï5. Feet  
ÏÏ§Ï6. Close Program  
¼¼§Ï1  
ÏÏ§ÏThis is a distance converter.  
ÏÏ§ÏChoose which unit to display.  
ÏÏ§Ï1. Kilometers  
ÏÏ§Ï2. Miles  
ÏÏ§Ï3. Yards  
ÏÏ§Ï4. Inches  
ÏÏ§Ï5. Feet  
ÏÏ§Ï6. Close Program  
¼¼§Ï2  
ÏÏ§ÏThis is a distance converter.  
ÏÏ§ÏChoose which unit to display.  
ÏÏ§Ï1. Kilometers  
ÏÏ§Ï2. Miles  
ÏÏ§Ï3. Yards  
ÏÏ§Ï4. Inches  
ÏÏ§Ï5. Feet  
ÏÏ§Ï6. Close Program  
¼¼§Ï3  
ÏÏ§ÏThis is a distance converter.  
ÏÏ§ÏChoose which unit to display.  
ÏÏ§Ï1. Kilometers  
ÏÏ§Ï2. Miles  
ÏÏ§Ï3. Yards  
ÏÏ§Ï4. Inches  
ÏÏ§Ï5. Feet  
ÏÏ§Ï6. Close Program  
¼¼§Ï4  
ÏÏ§ÏThis is a distance converter.  
ÏÏ§ÏChoose which unit to display.  
ÏÏ§Ï1. Kilometers  
ÏÏ§Ï2. Miles  
ÏÏ§Ï3. Yards  
ÏÏ§Ï4. Inches  
ÏÏ§Ï5. Feet  
ÏÏ§Ï6. Close Program  
¼¼§Ï5  
ÏÏ§ÏThis is a distance converter.  
ÏÏ§ÏChoose which unit to display.  
ÏÏ§Ï1. Kilometers  
ÏÏ§Ï2. Miles  
ÏÏ§Ï3. Yards  
ÏÏ§Ï4. Inches  
ÏÏ§Ï5. Feet  
ÏÏ§Ï6. Close Program  
¼¼§Ï6  
ÏÏ§Ï  
ÏÏ©Ï ----jGRASP: operation complete.

From text file

This is a distance converter.

Choose which unit to display.

1. Kilometers

2. Miles

3. Yards

4. Inches

5. Feet

6. Close Program

This is a distance converter.

Choose which unit to display.

1. Kilometers

2. Miles

3. Yards

4. Inches

5. Feet

6. Close Program

This is a distance converter.

Choose which unit to display.

1. Kilometers

2. Miles

3. Yards

4. Inches

5. Feet

6. Close Program

This is a distance converter.

Choose which unit to display.

1. Kilometers

2. Miles

3. Yards

4. Inches

5. Feet

6. Close Program

This is a distance converter.

Choose which unit to display.

1. Kilometers

2. Miles

3. Yards

4. Inches

5. Feet

6. Close Program

This is a distance converter.

Choose which unit to display.

1. Kilometers

2. Miles

3. Yards

4. Inches

5. Feet

6. Close Program

1

25.0 meters is 0.025 Kilometers

2

25.0 meters is 0.01553425 miles

3

25.0 meters is 27.339999999999996 yards

4

25.0 meters is 984.2499999999999 inches

5

25.0 meters is 82.025 feet

6

The multiple menus I believe are from having two different write buffers. I think the writers save their position and then append at their own separate positions, which creates the stacks of menus.