**WEEK 2**

TASK: **Temperature converter**

**package** temperature;

**import** java.util.Scanner;

**public** **class** Temperature {

**public** **static** **void** main(String[] args) {

// **TODO** Auto-generated method stub

**float** celsius,fahrenheit;

Scanner sc=**new** Scanner(System.***in***);

**while**(**true**) {

System.***out***.println("Enter the temperature to be converted:");

**float** temp;

temp=sc.nextFloat();//reading temperature value

System.***out***.println("whether the entered temperature is in celsius or fahrenheit?");

System.***out***.println("press c for celsius and f for fahrenheit ");

**char** ch;

ch=sc.next().charAt(0);

//asking the entered temperature is in celsius or fahrenheit

**switch**(ch) {

**case** 'c':

//checking validity of celsius values

**if**(temp<0 || temp>100) {

System.***out***.println("Entered value is invalid!");

}

**else** {

System.***out***.println("Conversion of temperature celsius to fahrenheit!!");

fahrenheit = (temp\* 9/5) + 32;

//formulae for celsius to fahrenheit conversion

System.***out***.println(temp +" celsius is converted to "+fahrenheit+ " fahrenheit");

}

**break**;

**case** 'f':

//checking validity of fahrenheit values

**if**(temp<32 || temp>212) {

System.***out***.println("Entered value is invalid!");

}

**else** {

System.***out***.println("Conversion of temperature fahrenheit to celsius!!");

celsius =(temp - 32) \* 5/9;

//formulae for fahrenheit to celsius conversion

System.***out***.println(temp +" fahrenheit is converted to "+celsius+" celsius");

}

**break**;

**default**:System.***out***.println("Invalid choice!!");

}

}

}

}

**OUTPUT**

Enter the temperature to be converted:

0

whether the entered temperature is in celsius or fahrenheit?

press c for celsius and f for fahrenheit

c

Conversion of temperature celsius to fahrenheit!!

0.0 celsius is converted to 32.0 fahrenheit

Enter the temperature to be converted:

-5

whether the entered temperature is in celsius or fahrenheit?

press c for celsius and f for fahrenheit

c

Entered value is invalid!

Enter the temperature to be converted:

32

whether the entered temperature is in celsius or fahrenheit?

press c for celsius and f for fahrenheit

f

Conversion of temperature fahrenheit to celsius!!

32.0 fahrenheit is converted to 0.0 celsius

Enter the temperature to be converted:

20

whether the entered temperature is in celsius or fahrenheit?

press c for celsius and f for fahrenheit

f

Entered value is invalid!