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Lab 2 - In Lab Assignment

Due end of the lab session

Acknowledge your collaborators or source of solutions, if any. **Submission by the end of the LAB is required.** Please type your answers, handwritten submission will not be accepted. Do all of the following. A subset of your solutions will be graded.

1) What will the following program print?

```
#include <stdio.h>

int main(void) {
        int x =5;
        int y =7;
        int z =50;

        if (!(x < y && z > (z/x -y )) ){
                printf("Case 1\n");
        } else {
                printf("Case 2\n");
        }

        return 0;
}
```

OUTPUT: Case 2

It is simply if else condition. x < y is true.
z > z/(x-y) is true.
So, overall condition is true. But there is negation(!). So, the if condition becomes false.
Hence, else part is executed. Case 2 is printed.

2) Write a program that asks the user to enter a temperature in Fahrenheit and convert the temperature to Kelvin. You need to use functions for the calculation using the formula given below. Print the results using a meaningful statement (see example).

Formula:
K = (F − 32) × 5/9 + 273.5

K represents the output in kelvin
F represents input in Fahrenheit

Sample input and output:

Input: Please enter the temperature in Fahrenheit: 100

Output: The temperature in Kelvin is 311.28.

```
/*
//AUTHOR: Bibek Dhungana
//FILENAME: Lab2.c
//SPECIFICATION: program that asks the user to enter a temperature in Fahrenheit
and convert the temperature to Kelvin
//FOR: CS 1412 Programming Principles 2 Section 504
*/

//importing all the required libaries
#include <stdio.h>

/*function prototype for fahrenheitToKelvin function*/
double fahrenheitToKelvin(double fahrenheitTemp);


int main(void) {
    /*initialing the variables to store kelvin temperature and fahrenhiet temperat
ure*/
    double kelvinTemp;
    double fahrenheitTemp;

    /*taking fahrenheit temperature from user as input*/
    printf("Please enter the temperature in Fahrenheit:");
    scanf("%lf",&fahrenheitTemp);

    /*calling the fahrenheitToKelvin function*/
    kelvinTemp = fahrenheitToKelvin(fahrenheitTemp);

    /*Printing the output to the user*/
    printf("The temperature in Kelvin is %.2f\n",kelvinTemp);



return 0;
}

/*
//function declearation of fahrenheitToKelvin
//NAME: fahrenheitToKelvin
//INPUT: Double (temperature in fahrenheit)
//OUTPUT: Double (temperature in Kelvin)
//SPECIFICATION:function to convert fahrenheit to Kelvin
*/
double fahrenheitToKelvin(double fahrenheitTemp){
    double kelvin;
    kelvin =  (fahrenheitTemp - 32.0) * (5.0/9.0) + 273.5;
```

```
    return kelvin;
}
```

The output of program is: