



Lab 1: Introduction Programming in C

A. Creating a C Program: Hello World

Hello World C Program:

```
#include
<stdio.h> void
main() {
    printf("Hello World\n");
    printf("Press any key to continue.");
    system ("Pause"); // waits for key
```

```
}
```

B. Exercise: Temperature Conversion

Temperature Conversion Program:

```
/*-----  
File: GNG1106template.c  
Description: The program converts a value in Kelvin to a value in  
Fahrenheit.  
-----*/  
#include <stdio.h>  
double convertKtoF(double); // function prototypes  
/*-----  
Function: main  
Description: Prints a statement that asks for user input in data type  
double, then reads data to pass to function  
"convertKtoF". The original value and value returned  
from the function are then printed in a statement.  
-----*/  
void main(void)  
{  
    double degreeK, degreeF; // Variable  
    declarations  
    printf("Please enter a temperature in degrees Kelvin:");//  
    Instructions scanf("%lf",&degreeK); degreeF =  
    convertKtoF(degreeK);  
    printf("\nKelvin: %f Fahrenheit: %0.2f\n", degreeK, degreeF);  
    system ("Pause"); // waits for key  
}  
/*-----  
Function: convertKtoF  
Parameters: degreeK - holds value passed from main, this is the  
temperature in Kelvin  
Return: The temperature in Fahrenheit.  
Description: The function receives a value for parameter x from main.  
the value for x is then converted to Celsius. The value for  
Celsius is then converted to Fahrenheit. The value for  
Fahrenheit is then returned to the caller in main. -----  
-----*/ double  
convertKtoF(double degreeK)  
{  
    double degreeC, degreeF; // Variable declarations  
    degreeC=degreeK-273.2; // Instructions  
    degreeF=(degreeC*9/5)+32;  
    return (degreeF);  
}
```