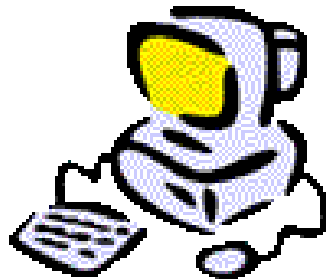
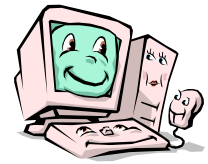


GNG 1106
Fundamentals of Engineering Computation

Lab 1 – Fall 2017
Report

Enter your names and student numbers here.





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");
}
```

Hello World C Program Output:

The screenshot shows a Windows command prompt window with the title bar 'Z:\ahija051\Desktop\Lab1\GNG1106template.exe'. The window contains the following text: 'Hello World', 'Process returned 0 (0x0) execution time : 0.246 s', and 'Press any key to continue.'.

B. Exercise: Temperature Conversion

Temperature Conversion Program:

File: GNG1106template.c

Author:

Description: Insert a short description of your program.

-----*/

#include <stdio.h>

// function prototypes

float ConvertKtoF(float);

/*-----

Function: main

Description: Insert a short description of what the function main does.

-----*/

void main(void)

```
{
    float degreeK, degreeF;
    printf("Please enter a temperature in degrees Kelvin\n");
    scanf("%f",&degreeK);
    degreeF=ConvertKtoF(degreeK);
    printf("Kelvin: %f Fahrenheit: %f", degreeK, degreeF);
}
```

/*-----

Function: function_name

Parameters:

x - description of parameter x

Return: Description of value returned.

Description: Insert a short description of what the function does. Modify the function name. Change the type of the return value if required. Change the parameter list. Align the prototype.

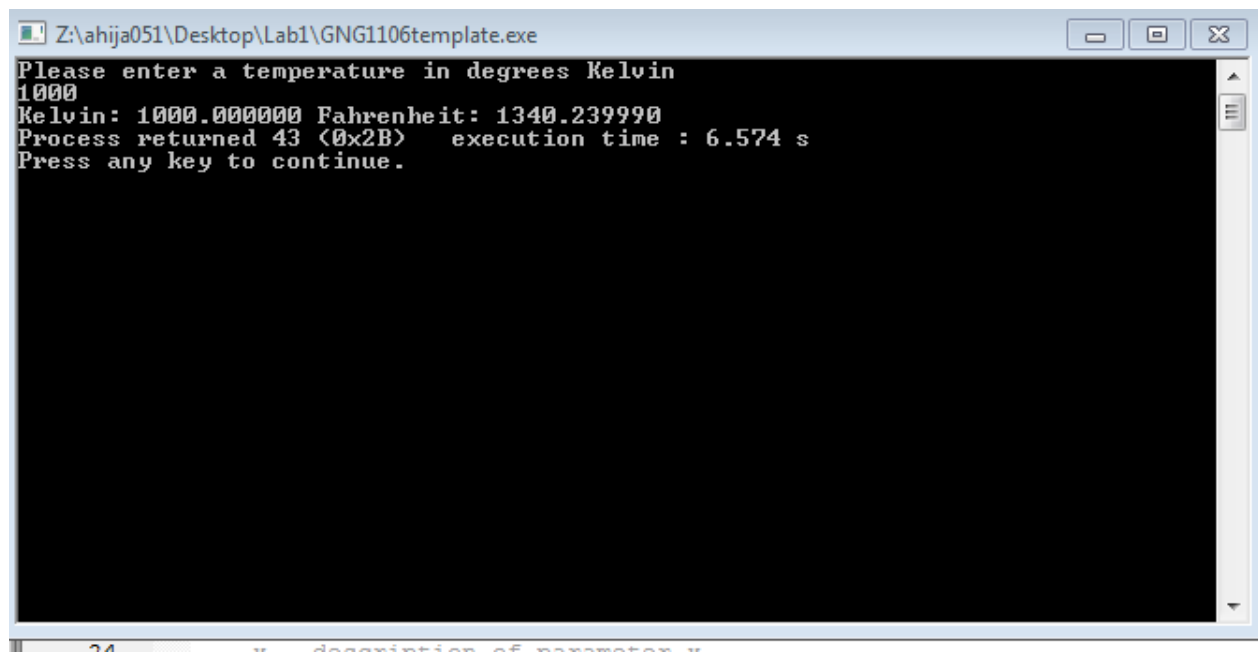
-----*/

float ConvertKtoF(float degreeK)

```
{
    float TC, TK, TF;
    TK=degreeK;

    //float degreeC, degreeK;
    TC = TK - 273.2;
    TF = (TC * 9/5) + 32;
    return(TF);
}
```

Temperature Conversion Program Output:



```
Z:\ahija051\Desktop\Lab1\GNG1106template.exe
Please enter a temperature in degrees Kelvin
1000
Kelvin: 1000.000000 Fahrenheit: 1340.239990
Process returned 43 (0x2B)   execution time : 6.574 s
Press any key to continue.
```

Code Memory

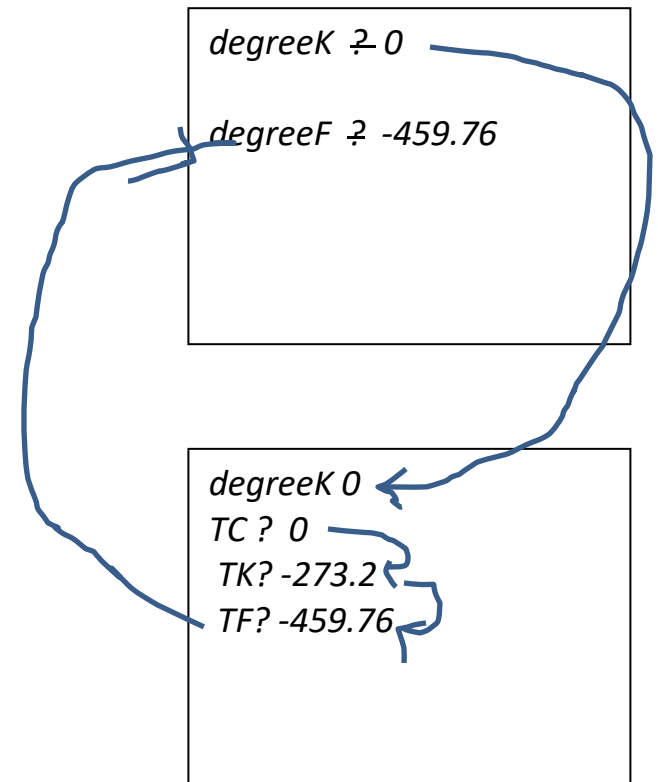
```
#include <stdio.h>
// function prototypes
float ConvertKtoF(float);

void main(void)
{
    float degreeK, degreeF;
    printf("Please enter a temperature in degrees Kelvin\n");
    scanf("%f",&degreeK);
    degreeF=ConvertKtoF(degreeK);
    printf("Kelvin: %f Fahrenheit: %f", degreeK, degreeF);
}

float ConvertKtoF(float degreeK)
{
    float TC, TK, TF;
    TK=degreeK;

    //float degreeC, degreeK;
    TC = TK - 273.2;
    TF = (TC * 9/5) + 32;
    return(TF);
}
```

Working Memory



CPU

$TC = TK - 273.2;$
 $TF = (TC * 9/5) + 32$