#include "functions.h"

#include <stdio.h>

void ohms\_law\_voltage\_caluculation()

{

double voltage = 0.0,

current [5] = {0.001 , 0.002 , 0.003 , 0.004 , 0.005},

resistance = 2000.0;

for(int count = 0 ; count < 5; count++)

{

voltage = current[count] \* resistance;

printf("the voltage is :%lf with the current at :%lf using a resistor of value %lf\n", voltage , current[count], resistance );

}

}

void ohms\_law\_output\_current()

{

double current = 0.0,

voltage = 0.0,

resistance = 0.0;

printf("Input the voltage:");

scanf("%lf",& voltage);

printf("\n\n Input the resistor value:");

scanf("%lf",& resistance );

current = voltage/ resistance;

printf("the expected current is: %lf \n\n", current);

}

void resistor\_tolerance\_calculator()

{

double resistor\_base\_value = 0.0,

resistor\_tolerance\_percentage = 0.0,

hundred = 100.0,

resistor\_value\_error = 0.0,

resistor\_tolerance\_high\_value = 0.0,

resistor\_tolerance\_low\_value = 0.0;

printf("Input base value of the the resistor\n\n\n");

scanf("%lf",& resistor\_base\_value);

printf("Input the tolerance percentage as a whole number\n\n\n");

scanf("%lf",& resistor\_tolerance\_percentage);

resistor\_value\_error = resistor\_base\_value \* resistor\_tolerance\_percentage / hundred;

resistor\_tolerance\_high\_value = resistor\_base\_value + resistor\_value\_error;

resistor\_tolerance\_low\_value = resistor\_base\_value - resistor\_value\_error;

printf("The resistor\_tolerance\_high\_value is: %lf\n\n"

"The resistor\_tolerance\_low\_value is: %lf\n\n "

,resistor\_tolerance\_high\_value,resistor\_tolerance\_low\_value);

}

void hello\_world()

{

printf("hello\_world");

}