CEG 2170
Laboratory 4

The purpose of this lab is to gain experience writing decision statements (if..else if and switch).

Turn In: Upload your project to the Dropbox on Pilot. Be sure your program follows the guidelines given on the Style Requirements document (provided on Pilot) with respect to commenting, variable naming, indenting, etc.

Part 1

Create a new project with a program to display earthquake damage based on the Richter scale value. Enter the following partially-completed program, and add code where instructed by the comments. Add appropriate commenting to the top of the program with your name, course, etc., as described in the Style Requirements document.

```
#include <stdio.h>

void characterize_earthquake( double magnitude);

int main() {
    double magnitude;

    //get the magnitude of the earthquake from the user


    //call the characterize earthquake function here

    return 0;
}

/*************************************************************************
This function displays the effects of an earthquake based on the Richer Scale
Input parameters: magnitude is a value between 1 and 10
Return: none
*************************************************************************
*****/
void characterize_earthquake( double magnitude) {

    /* your code here; use the information found in the table on this wiki
      page (you'll have to scroll down a bit to view the table):

            https://en.wikipedia.org/wiki/Richter_magnitude_scale

      NOTE:  Only column 1 (magnitude) and column 4 (Average earthquake
      effects) of the Wiki table are relevant for this problem. Each
      sentence in the description of effects should be displayed on a
      separate line.
    */

}
```

Part 2

Create a new project with a program to display the contents of a container based on its color. Enter the following partially-completed program, and add code where instructed by the comments. Add appropriate commenting to the top of the program.

```
#include <stdio.h>

void report_container_contents_if( char color);
void report_container_contents_switch( char color);

int main() {
    char color;

    printf( "Enter the color of the container, as a single letter: ");
    scanf( "%c", &color);

    report_container_contents_if( color);
    report_container_contents_switch( color);

    return 0;
}

/*****************************************************************************
This function displays the contents of a container based on the container's
color:
  O (orange) is ammonia; B (brown) is carbon monoxide;
  Y (yellow) is hydrogen; G (green) is oxygen.
All other letters indicate unknown color/unknown contents

Input parameters: color - the color of the container
Return: none
*****************************************************************************/
void report_container_contents_if( char color) {

    /* your code here; use the information in the comments above to write
      an if..else if statement that will display the contents of the
      container based on its color. Upper- or lowercase letters are valid;
      for colors other than o, b, y, or g indicate "contents unknown."
    */

}
```

```
/*****************************************************************************
This function displays the contents of a container based on the container's
color:
  O (orange) is ammonia; B (brown) is carbon monoxide;
  Y (yellow) is hydrogen; G (green) is oxygen.
All other letters indicate unknown color/unknown contents

Input parameters: color - the color of the container
Return: none
*****************************************************************************/
void report_container_contents_switch( char color) {

    /* your code here; use the information in the comments above to write
      a switch statement that will display the contents of the container
      based on its color. Upper- or lowercase letters are valid; for
      colors other than o, b, y, or g indicate "contents unknown."
    */

}
```