Exercise 1
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Exercise 1 requires you to compile two different C programs, observe the output of the programs, and make minor modifications to each program. You are required to collect and then turn-in the output from the programs according to the instructions below.

Program 1
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1. Examine Program1.c

2. Build Program1.c using the provided makefile:
    a. Run the make command: make

3. Execute Program1 in the command line:
    a. Run the program: ./Program1
    b. Observe the output
    c. List the program: cat Program1.c
    d. List the makefile: cat makefile
    e. Run the program and capture the output: ./Program1 > Exercise1_1.txt

4. Execute Program1 in GDB:
    a. Load the program into the debugger: gdb Program1
    b. Issue the command: list main
    c. Issue the command: disassemble main
    d. Issue the command: disassemble _start
    e. Copy disassembly from the screen to a file titled Exercise1_2.txt
    e. Issue the command: run
    f. Exit gdb: quit

5. Modify Program1.c and change the reason that we love C programming:
    a. Modify program and specify your reason
    b. Build the modified program
    c. Execute Program1
    d. Observe the output
    e. Capture the output with: ./Program1 > Exercise1_3.txt

6. Update the program to include a function which returns a value:
    a. Change the contents of Program1.c to:

```
char *reason()
{
  return "fun";
}
```

```
int main(int argc, char *argv[])
{
  printf("---- CSCV 352 Fall 2021 ----\n\n");

  printf("Hello Students, \n");

  printf("Welcome to the world of C programming!\n");

  printf("We like to program in C because it is %s.\n", reason());

  return 0;
}
```

b. Capture the output with: ./Program1 > Exercise1_4.txt

Program 2

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7. Program 2 converts Fahrenheit to Celsius
    a. Examine Program2.c and try to understand what the program does
    b. Build the program using the provided makefile
    c. Observe output of the program

8. Modify the Fahrenheit to Celsius program to be Fahrenheit to Kelvin
    a. The formula for f to K is: Kelvin = (Fahrenheit + 459.67) * 5.0 / 9.0;
    b. Build the program
    c. Observe the output of the program
    d. Capture the output with: ./Program2 > Exercise1_5.txt

TURN IN

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Exercise1_1.txt
Exercise1_2.txt
Exercise1_3.txt
Exercise1_4.txt
Exercise1_5.txt