**Bob Smith** 

Assignment 1

Variables, Operations, and Loops

Write a C program that generates multiplication tables using different loop structures.

## **TASK REQUIREMENTS:**

Name:

- Generate a printed NxN table for values N=1 to 8 using for loops
- Table should have column headers showing each N value
- Create a reversed version(8 at top/left) using while loops
- Include clear code comments and consistent formatting
- Preserve the included sample text files for testing

## **SAMPLE OUTPUT**

```
C:\PROG2007\ASSIGN1\cmake-build-debug\ASSIGN1.exe
TABLE OF PRODUCTS (FOR LOOP)
Ν
     1
                                 6
                                      7
                                            8
                3
1
     1
           2
                3
                      4
                           5
                                      7
                                 6
                                            8
2
     2
           4
                6
                      8
                           10
                                 12
                                      14
                                            16
3
     3
           6
                9
                      12
                           15
                                 18
                                      21
                                            24
4
           8
                12
                     16
                           20
                                 24
                                      28
                                            32
5
     5
           10
                15
                      20
                           25
                                 30
                                      35
                                            40
6
     6
           12
                18
                      24
                           30
                                 36
                                      42
                                            48
7
     7
           14
                21
                      28
                           35
                                 42
                                      49
                                            56
     8
           16
                24
                      32
                           40
                                 48
                                      56
                                            64
REVERSED TABLE OF PRODUCTS (WHILE LOOP)
N
     8
           7
                6
                      5
                           4
                                 3
                                      2
8
     64
                      40
                           32
                                 24
           56
                48
                                      16
                                            8
7
     56
           49
                42
                      35
                           28
                                 21
                                      14
                                            7
6
     48
                           24
                                 18
                                      12
           42
                36
                      30
                                            6
5
     40
           35
                30
                      25
                           20
                                 15
                                      10
                                            5
4
     32
           28
                24
                      20
                           16
                                12
                                      8
                                            4
3
     2.4
           2.1
                18
                      15
                           12 9
                                      6
                                            3
     16
           14
                12
                      10
                           8
                                 6
                                      4
                                            2
1
                6
                      5
                                 3
                                      2
                                            1
           7
                           4
Process finished with exit code 0
```

## **Submission Instructions**

## **Video Recording Submission:**

You will demonstrate the completion of this project via a **video screen-capture recording** of you using CLion, GitBash, and viewing your code to show completion of the **Video Submission Checklist**, which is posted on Brightspace. You will post **either your video file or a link to it**(e.g. a Microsoft Stream

recording, make sure to give the instructor permissions to watch it), to the Brightspace Assignment 1 Dropbox prior to the deadline. If you are not sure of how best to capture such a video, seek advice from the instructor prior to the deadline.

**NOTE**: MAKE SURE TO SHOW EVERYTHING IN THE VIDEO SUBMISSION CHECKLIST STEP-BY-STEP. YOU WILL NEED AUDIO IN THE VIDEO FOR AT LEAST THE CODE REVIEW PORTION OF THE CHECKLIST