

Variables, Operations, and Loops

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

TASK REQUIREMENTS:

- Generate a printed N×N table for values N=1 to 11 using for loops
- Table should have column headers showing each N value
- Create a reversed version(11 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)
N    1    2    3    4    5    6    7    8    9    10    11
1    1    2    3    4    5    6    7    8    9    10    11
2    2    4    6    8    10   12   14   16   18   20   22
3    3    6    9   12   15   18   21   24   27   30   33
4    4    8   12   16   20   24   28   32   36   40   44
5    5   10   15   20   25   30   35   40   45   50   55
6    6   12   18   24   30   36   42   48   54   60   66
7    7   14   21   28   35   42   49   56   63   70   77
8    8   16   24   32   40   48   56   64   72   80   88
9    9   18   27   36   45   54   63   72   81   90   99
10   10  20   30   40   50   60   70   80   90  100  110
11   11  22   33   44   55   66   77   88   99  110  121

REVERSED TABLE OF PRODUCTS(WHILE LOOP)
N    11   10    9    8    7    6    5    4    3    2    1
11   121  110   99   88   77   66   55   44   33   22   11
10   110  100   90   80   70   60   50   40   30   20   10
9    99   90   81   72   63   54   45   36   27   18    9
8    88   80   72   64   56   48   40   32   24   16    8
7    77   70   63   56   49   42   35   28   21   14    7
6    66   60   54   48   42   36   30   24   18   12    6
5    55   50   45   40   35   30   25   20   15   10    5
4    44   40   36   32   28   24   20   16   12    8    4
3    33   30   27   24   21   18   15   12    9    6    3
2    22   20   18   16   14   12   10    8    6    4    2
1    11   10    9    8    7    6    5    4    3    2    1

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