PROG2007 - Programming II

Assignment 1

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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 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)
N    1    2    3    4    5    6    7    8
1    1    2    3    4    5    6    7    8
2    2    4    6    8    10   12   14   16
3    3    6    9    12   15   18   21   24
4    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    8    16   24   32   40   48   56   64


REVERSED TABLE OF PRODUCTS(WHILE LOOP)
N    8    7    6    5    4    3    2    1
8    64   56   48   40   32   24   16   8
7    56   49   42   35   28   21   14   7
6    48   42   36   30   24   18   12   6
5    40   35   30   25   20   15   10   5
4    32   28   24   20   16   12   8    4
3    24   21   18   15   12   9    6    3
2    16   14   12   10   8    6    4    2
1    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