

**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 10 using for loops
- Table should have column headers showing each N value
- Create a reversed version(10 at top/left) using while loops
- Include clear code comments and consistent formatting
- Preserve the included sample text files for testing

**SAMPLE OUTPUT**

```
path\to\your\file\ASSIGN1.exe
```

```
TABLE OF PRODUCTS(FOR LOOP)
```

N	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

```
REVERSED TABLE OF PRODUCTS(WHILE LOOP)
```

N	10	9	8	7	6	5	4	3	2	1
10	100	90	80	70	60	50	40	30	20	10
9	90	81	72	63	54	45	36	27	18	9
8	80	72	64	56	48	40	32	24	16	8
7	70	63	56	49	42	35	28	21	14	7
6	60	54	48	42	36	30	24	18	12	6
5	50	45	40	35	30	25	20	15	10	5
4	40	36	32	28	24	20	16	12	8	4
3	30	27	24	21	18	15	12	9	6	3
2	20	18	16	14	12	10	8	6	4	2
1	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