Introduction to C Programming

Module 16: Assignment 03 (Theory)

Deadline 100 marks: 5th May 11.59 PM.
Deadline 90 marks: 6th May 11.59 PM.
Deadline 80 marks: Anytime after that.

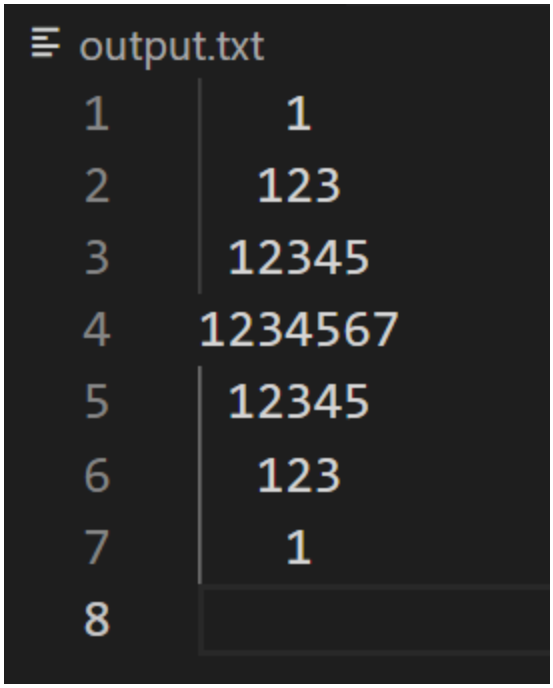
Answer sheet: Answer Script

Question No 1

Question: Write a C program to take positive integer **N** as input and print a pattern shown in the sample input output. **Marks**: 20

Constraints: 1 <= **N** <= 5

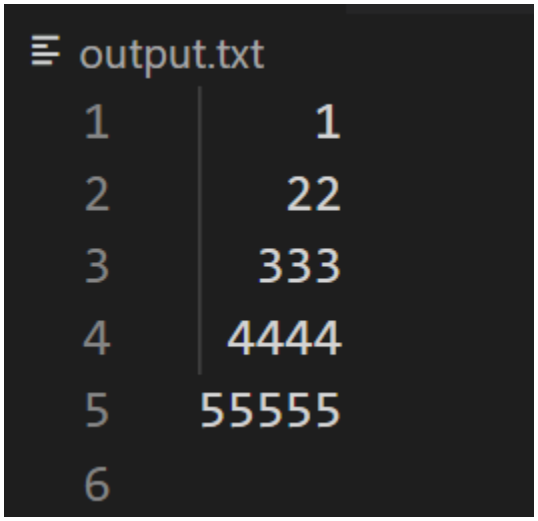
Sample Input	Sample Output
5	output.txt 1 123 12345 1234567 123456789 1234567 12345 123 1

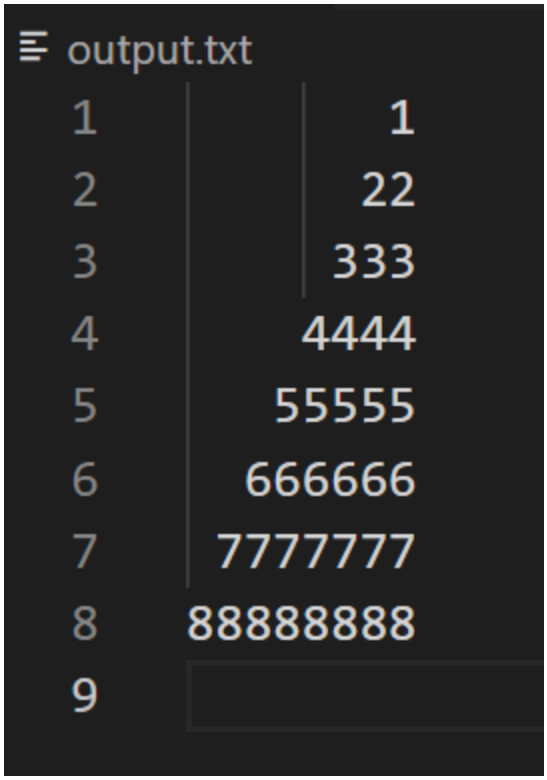
4	 output.txt 1 1 2 123 3 12345 4 1234567 5 12345 6 123 7 1 8

Question No 2

Question: Write a C program to take positive integer **N** as input and print a pattern shown in the sample input output. **Marks**: 20

Constraints: 1 <= **N** <= 9

Sample Input	Sample Output
5	

8	 output.txt 1 1 2 22 3 333 4 4444 5 55555 6 666666 7 7777777 8 88888888 9

Practice Problem 3

Question: Write a function named **count_before_zero()** which receives an array of integers and the size of that array and counts the number of elements in that array until you find zero and returns that count. Call that function in the main function and print the count there. **Marks**: 15

Sample Input	Sample Output
5 1 2 4 0 5	3
4 1 2 3 4	4
5 0 1 2 4 5	0
5 1 2 0 4 0	2

Practice Problem 4

Question: Show the 4 types of examples of functions given below with an example. You can give any example you want, but make sure you are giving different examples for all the four types.. **Marks**: 20

1. Has Return + Parameter
2. Has Return + No Parameter
3. No Return + Parameter
4. No Return + No Parameter

Practice Problem 5

Question: Write a function named **is_palindrome()** which will receive a string as parameter from the main function and this function will return 1 if the string is palindrome, otherwise it will return 0. And with the help of this 1 or 0 print "Palindrome" or "Not Palindrome" in the main function. **Marks**: 15

Constraints: String length will be maximum 10.

Sample Input	Sample Output
madam	Palindrome
abcd	Not Palindrome

Practice Problem 6

Question: Explain about **pass by value** and **pass by reference** with an example.

Marks: 10