Assignment-1

pingala.iiit.ac.in/courses/cs0-101-m24/assessments/a1/writeup

Q1. Write a C program that takes five integers as input, each in the range from 0 to 9. The program should concatenate these integers to form a five digit number with two decimal places and print the resulting number. Leading zeros in the final number should be removed before printing.

Input Format:
- 5 integers (each in the range 0 to 9) in a single line.

Output Format:
- A single float number with **2 decimal places only** representing the concatenated number, with leading zeros removed.

Testcases:
Testcase 1:
input: 0 4 2 3 1
output: 42.31

Testcase 2:
input: 0 0 1 9 8
output: 1.98

Constraints:
- All input values will be between 0 and 9.
- Output should contain 2 decimal places only.

Q2. Write a C program that takes the lengths of three sides of a triangle as input in sorted order. The program should first check if the three sides can form a valid triangle. If they do form a valid triangle, the program should then check if the triangle is a right triangle.

Input Format:
- 3 integer numbers representing the lengths of the sides of the triangle in a single line.

Output Format:
- If the sides form a valid triangle, print "VALID TRIANGLE". If the triangle is also a right triangle, print "VALID RIGHT TRIANGLE". If the sides do not form a valid

triangle, print "INVALID TRIANGLE".

Testcases:
Testcase 1:
input: 3 4 5
output: VALID RIGHT TRIANGLE

Testcase 2:
input: 1 2 3
output: INVALID TRIANGLE
Constraints:
- The input values will be positive numbers and given in sorted order.
(1<=a<=b<=c<=2*10^6)
Q3. Chintu the dog needs to be fed at specific times. The current schedule is in a 24-hour format, which can be confusing for some. To make it easier, we need to convert Chintu's feeding times to a 12-hour format with AM/PM notation.

Input Format:
- 3 integers seperated by ':' symbol in the order HH:MM:SS.

Output Format:
- A string representing the time in 12-hour format with AM/PM notation. for example: 11:23:34 PM

Testcases:
Testcase 1:
input: 23:24:23
output: 11:24:23 PM

Testcase 2:
input: 01:02:02
output: 01:02:02 AM

Testcase 3:
input: 11:24:23
output: 11:24:23 AM
Constraints:
- The input time will be in the format HH:MM:SS.

- We recommend using input specifiers manipulation rather than char arrays and strings