

COM1001 LAB 2 Q1

Question:

Write a Python program that asks the user to enter a **positive integer**.

Using a **while loop**, determine whether the number is a **perfect number** or not.

Explanation:

A **perfect number** is a number that is equal to the **sum of its proper divisors** (divisors excluding the number itself).

For example:

- 6 → divisors are 1, 2, 3 → $1 + 2 + 3 = 6$ → perfect number
- 8 → divisors are 1, 2, 4 → $1 + 2 + 4 = 7$ → not a perfect number

Instructions:

- You must use a **while loop**.
- Find all divisors of the number **less than itself**.
- Calculate their sum.
- Compare the sum with the original number.
- Print whether the number is **perfect** or **not**.

Example Output :

Enter a number: 6

6 is a perfect number.

Enter a number: 12

12 is not a perfect number.