1. What is an Algorithm?

An algorithm is a step-by-step set of instructions or rules designed to solve a specific problem or perform a specific task. It is a fundamental concept in computer science and programming, where algorithms are used to perform computations, data processing, and automated reasoning.

Characteristics:

Input: Accepts data as input.

Output: Produces a result as output.

Definiteness: Each step is clearly defined.

Finiteness: The algorithm must terminate after a finite number of steps.

Effectiveness: Each step can be performed in a finite amount of time.

To add two numbers:

1. Start.
2. Input two numbers, A and B.
3. Compute the sum, C = A + B.
4. Output C.
5. End.

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2. What is a Flowchart?

A flowchart is a graphical representation of a process or algorithm. It uses various symbols to represent different steps and shows the sequence of operations visually. Flowcharts are widely used for problem-solving, process planning, and understanding workflows.Flowcharts are helpful for visualizing complex algorithms or workflows, making them easier to understand and debug.

Flowchart Symbols:

Oval (Ellipse): Represents the start or end of a process.

Rectangle: Represents a process or operation.

Diamond: Represents a decision point (e.g., Yes/No).

Arrow: Shows the flow of the process.

Example:

A flowchart for adding two numbers might look like this:

1. Start (Oval).
2. Input two numbers (Rectangle).
3. Add the numbers (Rectangle).
4. Display the result (Rectangle).
5. End (Oval).