

# Flowchart

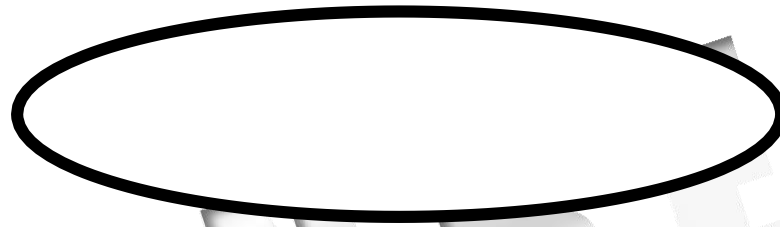
## ➤ What do you mean by Flowchart ?

- A flowchart is a graphical representation or diagram that illustrates the sequence of steps.
- It uses various shapes, symbols, and arrows to visualize the flow of information, data, or tasks from one step to another.
- Flowcharts are commonly used in various fields, including **computer programming**, business process analysis, system design, and problem-solving.
- The primary purpose of a flowchart is to provide a clear and structured overview of a process, making it easier to understand, analyze, and communicate complex procedures.
- Flowcharts are helpful in identifying bottlenecks, errors within a process, as well as designing and improving workflows.



➤ Each shape in a flowchart has a specific meaning, and here are some common symbols used in flowcharts:

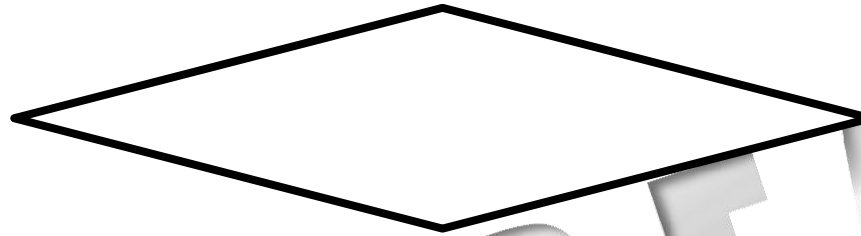
1. Oval (or rounded rectangle): Represents the start or end of a process.



2. Parallelogram: Represents input or output of data, such as data entry or displaying information



- 3. Diamond: Represents a decision point where a yes/no question is asked, leading to different paths based on the answer.



- 4. Rectangle: Represents a process or action step.



- 3. Arrow: Represents the flow or direction of the process, indicating the order in which steps are executed.



## ➤ Algorithm

- An **Algorithm** is a step-by-step, well-defined set of instructions or rules used to solve a particular problem or perform a specific task.
- It is a fundamental concept in computer science, as it forms the basis for designing and implementing computer programs and solving computational problems efficiently..
- In simple terms, an algorithm is like a recipe or a set of directions that guides you through a series of actions to achieve a desired outcome.
- It can be represented in various forms, such as natural language, pseudocode, flowcharts.



# Characteristics of a good algorithm include:

- **Correctness:** The algorithm should produce the correct and expected output for all valid inputs.
- **Finiteness:** The algorithm should eventually stop after a finite number of steps, reaching a solution or terminating.
- **Well-Defined:** Each step of the algorithm should be precisely and unambiguously defined, leaving no room for confusion.
- **Efficiency:** An algorithm should be designed to execute in a reasonable amount of time and use a reasonable amount of resources.

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# Example:

❖ Write Pseudo code And Flowchart of finding Addition number of two numbers

Pseudo code

1. Input num1, num2 (two numbers)
2. Set  $\text{sum} = \text{num1} + \text{num2}$
3. Print in Output "The sum of the two numbers is: ", sum

Flowchart :

