



Topics covered:

- Course Flow
- Flow charts
- Pseudocode

Q. How to solve a programming problem?

→ Given the problem,

- ① Understand the problem. → Add 2 numbers
- ② Check the given values. → 2 variables. Data Types?
- ③ Figure out an approach →  $a+b = \text{my answer}$ .
  - This comes from practice and past coding experience.
- ④ Code! → `int ans = a+b; cout << ans << endl;`

WARNING ⚠

Agar code samajh na aaye to



Aage sab kuch cover hoga.

Given some problem  $\boxed{P}$ , say you 'think' of some solution, ki aise aise karenge, etc. Now write down this crude solution on paper, not necessarily in correct syntax (code ki bhasha). Now your idea is on paper. Convert this rough work, also called 'pseudocode' into a program in a programming language of your choice, say C++.

Pseudocode : A very simple and high level (upar-upar ka) form of computer language that is used in program design.

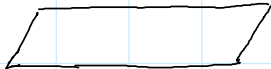
A Flowchart is a diagrammatic representation of an approach. This draws out all the steps of your approach in order.

Components :

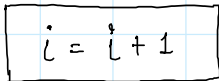
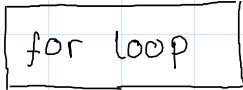
① Terminator : Specifies the start and end of a program.

(Start/End)  $\rightarrow$  Terminator

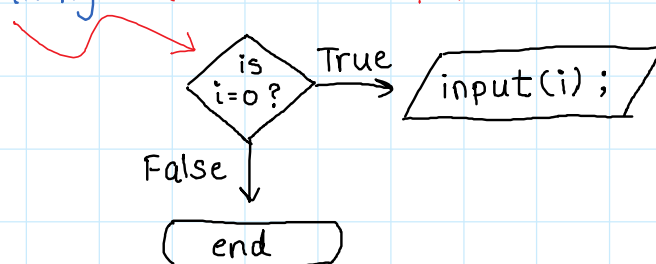
② Parallelogram : For taking input or showing output.

 Input / Output

③ Process : Operations and processes ke liye.

  $i = i + 1$  or  for loop

④ Decision Making : (Diamond Shape)



⑤ Circle : Connectors (To be covered when we discuss functions/methods)

⑥ Arrows : Code ka pravaah dikhane ke liye.  
(Upar flowchart dekho  $\uparrow$ )

EXAMPLE :