

How to Build Logic in Programming



Great programmers
don't memorize code,
they build logic.
Learn the right way to
think in programming.

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Introduction

Logic building ka matlab hai step by step soch kar **programming** se problem solve karna. Kisi bhi program ko likhne se pehle problem ko clearly samajhnaa zaruri hota hai.

- **Logic** hi **Programming** ka base hai.
- **Logic** problem solving mein help karta hai.
- Har program logical flow follow karta hai.

Programming is all about **logic**.

Step 1: Understand the Problem

Sabse pehle problem ko dhyan se padho.
Identify karo kya diya gaya hai aur kya output chahiye.

Problem: Do number jodo

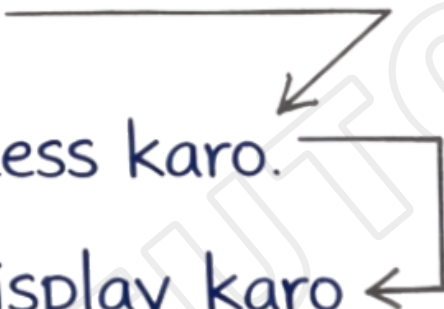
Input: Do numbers

Output: Do numbers ka sum

Problem samjhe bina kabhi coding mat shuru karo.

Step 2: Break the Problem into Steps

Bade problems ko seedha solve karna mushkil hota hai. To hum problem ko chhote aur simple **steps** mein divide karte hain.

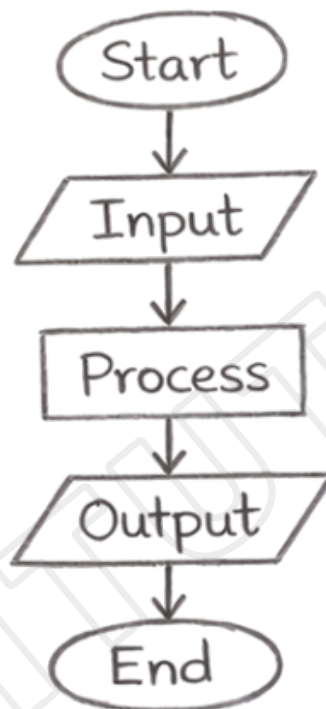
1. Input lo
 2. Data process karo.
 3. Output display karo
- 
- ```
graph TD; A[1. Input lo] --> B[2. Data process karo.]; B --> C[3. Output display karo];
```

Chhote steps logic aasan banate hain.

## Step 3: Flowchart and Dry Run

Ek **flowchart** symbols ka upyog karke logic ko darsata hai. **Dry run** ka matlab hai sample values dal kar logic ko check karna.

Dry run coding se pehle errors dhundne mein madad karta hai.



Input: 2, 3

Process:  $2 + 3$

Output: 5

## Step 4: Convert Logic into Code

Jab logic clear ho jaye, use code mein convert karo. Pehle logic par dhyan do, language baad mein aata hai.

Strong logic programming aasan banata hai

Start

Read a, b

sum = a + b

Print sum

End

- Simple code likho
- Output test karo
- Practice se logic improve karo

Roz practice karke apna logic strong banao.

# Logic Building Practice – Java

## Program 1: Check Odd or Even

Ek program likho jismein check karo ki ek number odd hai ya even.

### Logic

1. Ek number lo
2. Number % 2 check karo
3. Agar remainder 0 hai, number Even hai
4. Warna, number Odd hai

```
Read number
If number % 2 == 0
 Print "Even"
Else
 Print "Odd"
```

Modulo operator ka upyog karke logic banao

## Program 2: Find Largest of Two Numbers

Ye program do numbers ko compare karta hai aur **largest** wala dhoondta hai.

Logic steps :

1. Do numbers a aur b ko
2. a aur b ko **compare** karo
3. Jo bada number ho usko print karo

```
Read a, b
If a > b
 Print a is largest
Else
 Print b is largest
```

Dry run

$a = 5, b = 3$

Output: 5 is largest

Comparison decision making logic karta hai.