

L1

Introduction to flowcharts & pseudo-code

Intro to flowcharts

Flow →

(start/stop)

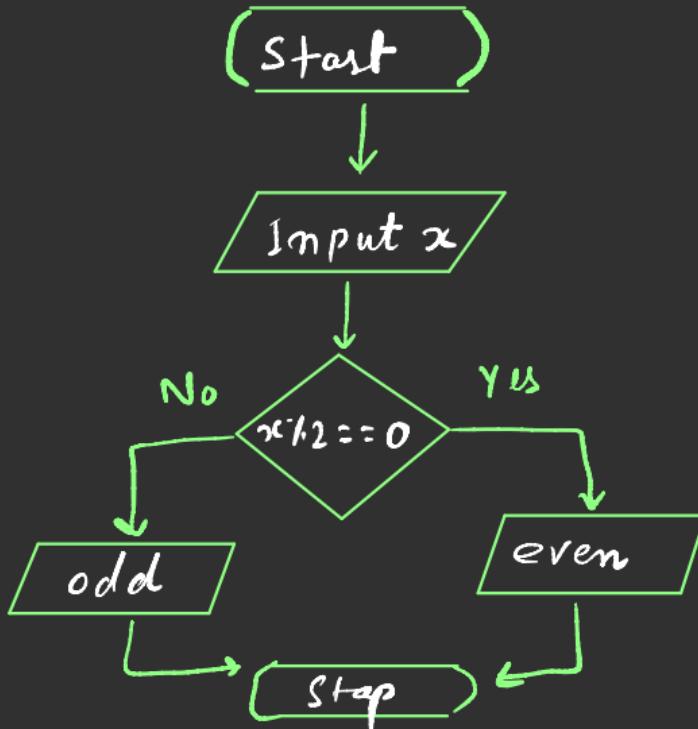
I/O

Processing

Decision

Let's draw a flowchart for Finding even & odd number

$$\begin{aligned}
 & a + b = 13 \\
 & C = a + b = 5 + 8 \\
 & C = a - b = 5 - 8 \\
 & C = -3
 \end{aligned}$$



$$\begin{aligned}
 & C = a + b \\
 & C = 5 + 8 \\
 & C = 13 \\
 & C = a \% b \\
 & C = 17 \% 5 \\
 & Q = \underline{\quad} \\
 & R = \underline{\quad} \\
 & 5 \times 3 + 2 = 17
 \end{aligned}$$

$$5 / 8$$

$$8 \times 0 = 0$$

$$\frac{x}{=} \% 5$$

$$8 * 0 + \boxed{5} = 5$$

$$8 * \frac{0+2}{8} = 2$$

$$\boxed{x \% 9}$$

$$68 \% 5 =$$

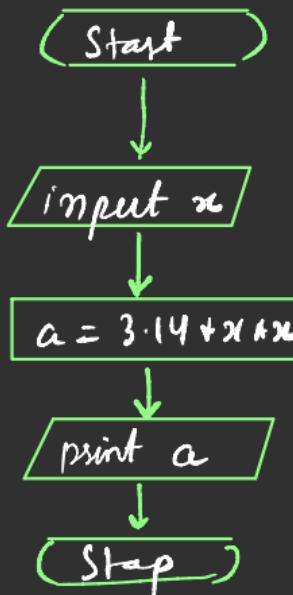
$$5 * 13 + 3 = 68$$

$$\frac{x \% y}{2 \% 8} \quad \underline{\underline{0-y-1}}$$

Area of a circle

Take input r (radius) from user and print area of circle

$$a = \underline{\pi r^2}$$
$$\underline{3.14 r^2}$$



Intro to Programming

Computer is like a dumb friend

What are instructions ?

take input }
give output }
Process

Writing Instructions for Questions

How open class in LearnYard's DSA course.

1. open browser
2. go to www.learnyard.com
3. go to class room on right side.
4. go to purchases on the left nav.
5. click on the course you want to watch.
6. go to the recording or live class.

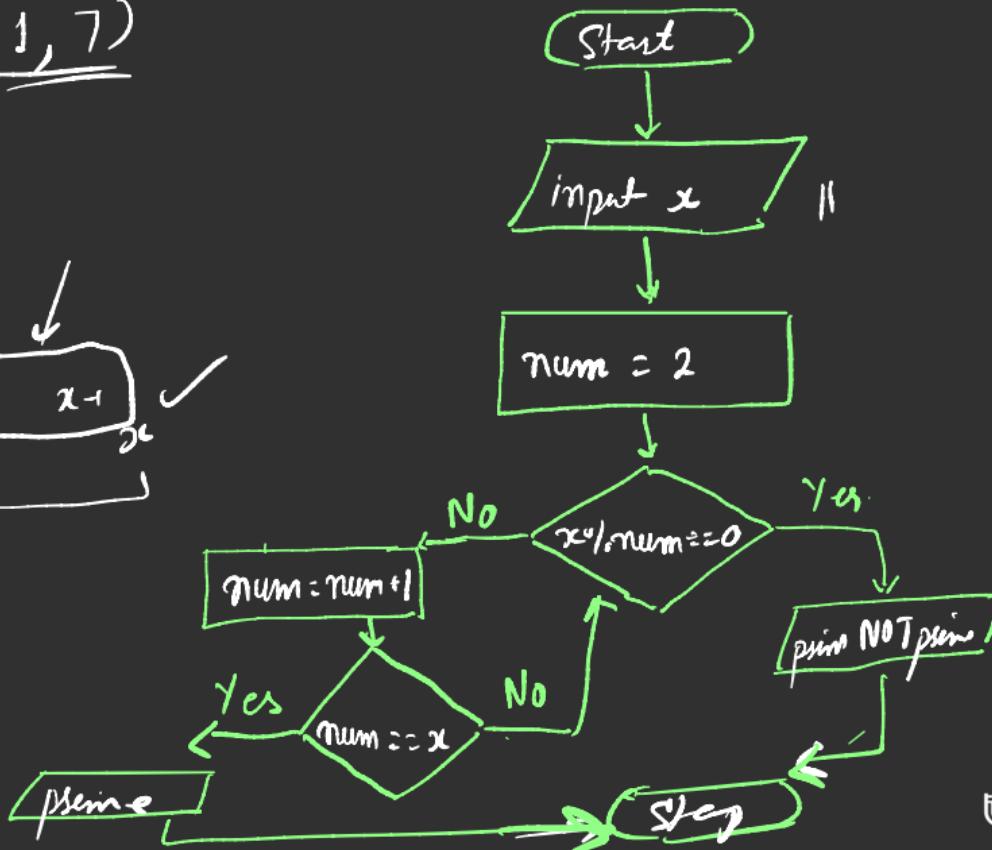
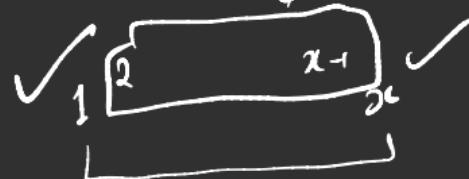
Check if given number is prime or not

Eg 7 → (1, 7)

Prime

11

13



12 num
11 2
11 3
11 4
11 5
11 6
11 7
11 8
11 9
11 10
11 11

Binary Language

0 1

101101

2^0 2^1 2^2 2^3 2^4 2^5

$$1 \times 1 = 1$$

$$0 \times 2 = 0$$

$$1 \times 4 = 4$$

$$1 \times 8 = 8$$

$$0 \times 16 = 0$$

$$1 \times 32 = 32$$

9764

$$\begin{array}{r} 1 \\ 1 \\ 1 \\ 1 \\ \hline 10^0 & 10^1 & 10^2 & 10^3 \\ & 1 & 100 & 1000 \\ & & 100 & \\ & & 10 & \\ & & 1 & \end{array}$$

45

$$\begin{aligned} & - 4 \times 1 \\ & + 6 \times 10 \\ & + 7 \times 100 \\ & + 9 \times 1000 \end{aligned}$$

2	45	1	
2	22	0	
2	11	1	
2	5	1	
2	2	0	
2	1	1	
	0		

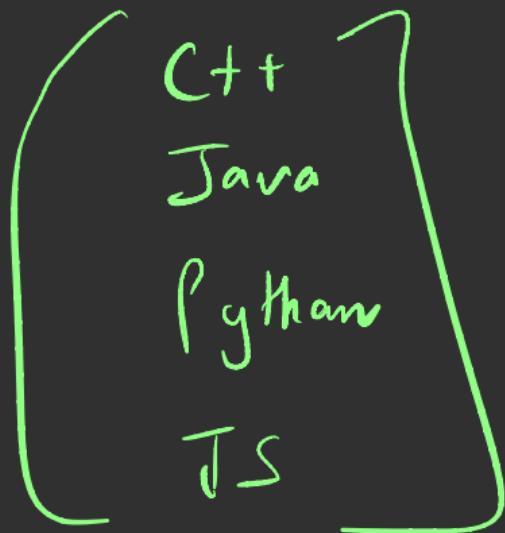
↑

101101₂

2	73	1
2	36	0
2	18	0
2	9	1
2	4	0
2	2	0
2	1	1
	0	

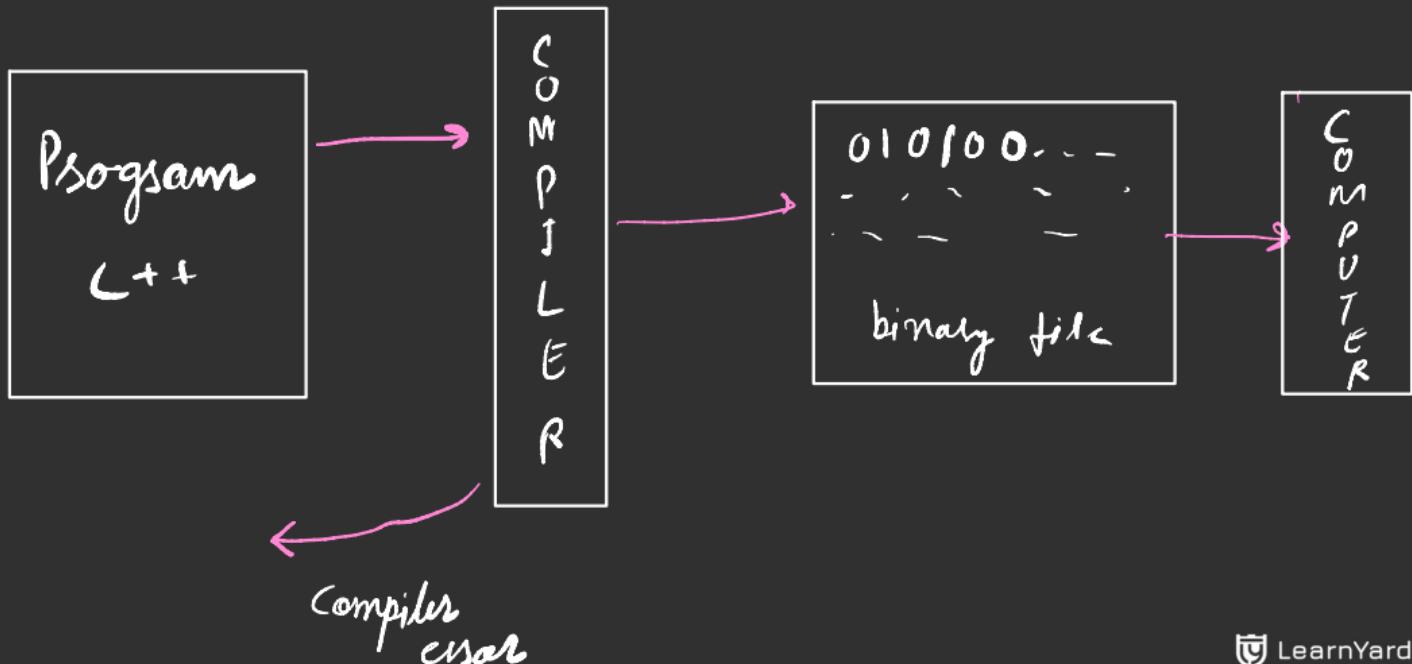
1001001

Programming Language



C++
Java
Python
JS

Understanding about execution of program & basic Compiler working



Thank You!

Reminder: Going to the gym & observing the trainer work out can help you know the right technique, but you'll muscle up only if you lift some weights yourself.

So, PRACTICE, PRACTICE, PRACTICE!