

Introduction to Flowcharts

With Sanket Singh

Let's crack Competitive Programming together!



Sanket Singh

- Software Development Engineer @ LinkedIn
- Former Software Developer @ Interviewbit/Scaler
- Former Product Engineer @ Coding Blocks
- Cracked Google Summer Of Code 2019 under Harvard University
- Offers From Linkedin, Sprinklr, Dunzo, Works Application(Singapore), Interviewbit, Grofers, Splash Learn
- No. 1 Educator in Unacademy Competitive Programming Track
- Former Research Intern @ ISRO (Indian Space Research Organisation)
- Taught 7,500+ programmers in Data Structures,
 Algorithms and Fundamentals of Computer Science
- Got Rank 1 in Codechef Long Challenges
- Won <u>Infosys</u> Digital Make-a-thon



- 1. Which shape is used to give a start instruction to the computer in flowcharts?
- A. Oval shaped box
- B. Parallelogram box
- C. Square box
- D. Triangle

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Refer to any flowchart: we use oval shape for start and end instruction

- 2. Which shape is used to give an input and output instruction to the computer in flowcharts?
- A. Oval shaped box
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Refer to flowcharts we use parallelogram shape for input and output instruction

- 3. Which shape is used to give a processing instruction to the computer in flowcharts?
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- D. Triangle

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Refer to flowcharts we use square shape for processing the instruction

- 4. Which of the following is not a valid variable name?
- A. abc
- B. abc1
- C. 1abc
- D. a1bc

4. Which of the following is not a valid variable name?

- A. abc
- B. abc1
- C. 1abc
- D. a1bc

Variable name must start with any alphabetic character or with ___

- 5. Let temp and Temp be any two variable names. Are both variable names the same?
- A. True
- B. False

5. Let temp and Temp be any two variable names. Are both variable names the same?

A. Yes

B. No

Variable name are case sensitive

6. Let A = Start, B = print(name), C = name = input()

D = stop which of the following is the correct order for printing the variable "name" in flowcharts?

- A. A->C->B->D
- B. A->B->C->D
- C. A->C->D->B
- D. D->B->C->A

6. Let A = Start, B = print(name), C = name = input()

D = Stop which of the following is the correct order for printing the variable "name" in flowcharts?

- A. A->C->B->D
- B. A->B->C->D
- C. A->C->D->B
- D. D->B->C->A

Refer to flowcharts

7. Let $A = \underbrace{Start}$, $B = \underbrace{print(c)}$, $C = \underbrace{c = a + b}$ $D = \underbrace{a = input()}$, b = input(), $E = \underbrace{Stop}$ which of the following is the correct order for adding two numbers a and b in flowcharts? (a and b taken as input)

- A. A->C->B->D->E
- B. A->B->C->D
- C. A->D->C->B->E
- D. D->B->C->A->E

7. Let $A = \underbrace{Start}$, $B = \underbrace{print(c)}$, $C = \underbrace{c = a + b}$ $D = \underbrace{a = input()}, b = input()$, $E = \underbrace{Stop}$ which of the following is the correct order for adding two numbers a and b in flowcharts? (a and b taken as input)

- A. A->C->B->D->E
- B. A->B->E->C->D
- C. A->D->C->B->E
- D. D->B->C->A->E

- 8. Let A = "3" and B = 3 be two variables. Are A and B equal?
- A. Yes
- B. No

8. Let A = "3" and B = 3 be two variables. Are A and B equal?

A. Yes

B. No

Both A and B of different type, A is string type and B is integer type

- 9. What is the meaning of the statement "a = b" (assignment operator) in programming languages?
- A. The value of a and b is the same
- B. Returns true if a and b are same, false otherwise
- C. Sets the value of variable a to be equal to b.
- D. Sets the value of variable b to be equal to a.

- 9. What is the meaning of the statement "a = b" (assignment operator) in programming languages?
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- D. Sets the value of variable b to be equal to a.

10. Suppose x and y are two variables with the value 2 and 3. What happens to their values when the following three statements are executed?

$$x = x + y$$

 $y = x - y$
 $x = x - y$

A. x = 2, y = 3

B. x = 5, y = 2

C. x = 3, y = 2

D. x = -1, y = 2

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$$x = x + y$$

 $y = x - y$
 $x = x - y$

A.
$$x = 2$$
, $y = 3$
B. $x = 5$, $y = 2$
C. $x = 3$, $y = 2$
D. $x = -1$, $y = 2$

After the first statement, x = 5, y = 3After the second, x = 5, y = 2After the third x = 3, y = 2