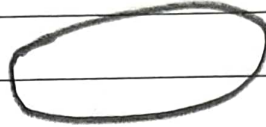


Flow of Program - Flowcharts & Pseudocode

* Flowcharts

Start / Stop →



Input / Output →



Processing →

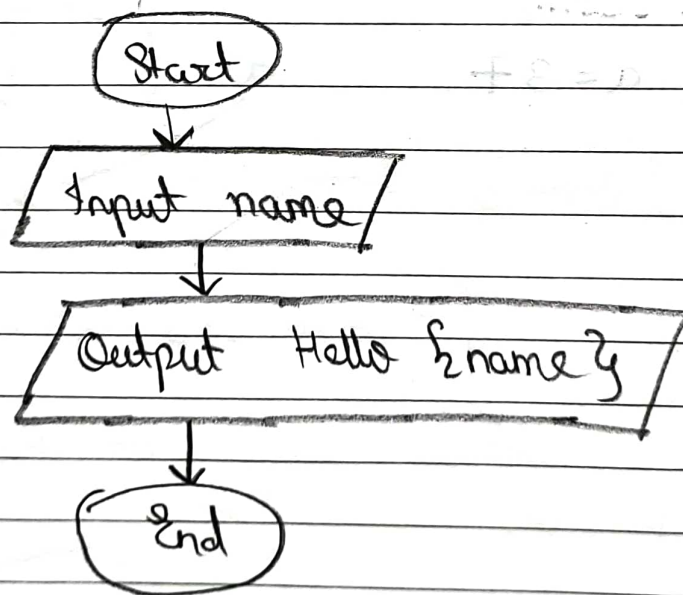


Condition →

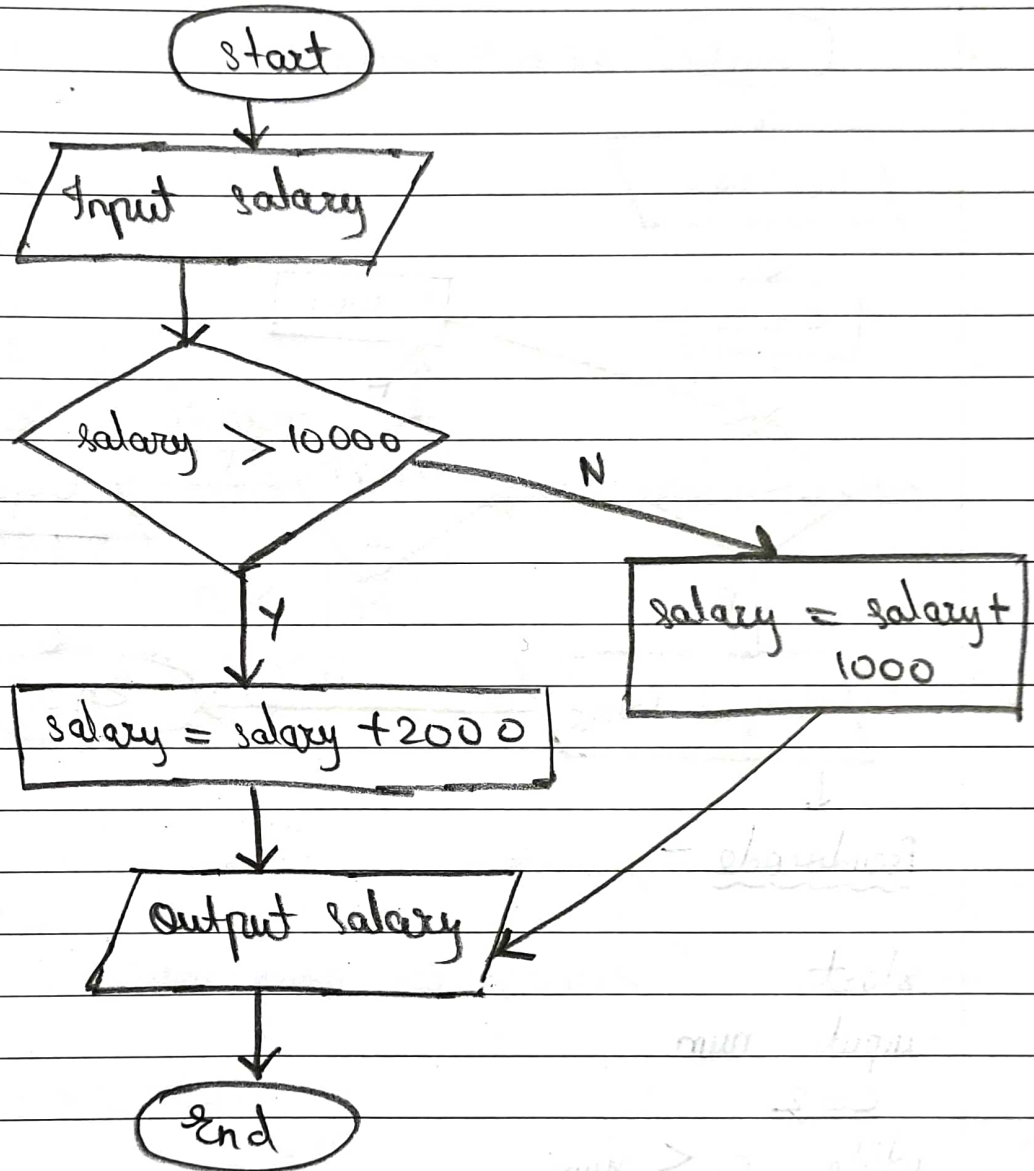


Flow direction of program →

Q1 Take a name & output Hello Name



Q2 Take input of a salary. If salary is $> 10,000$, add bonus of 2000, otherwise add bonus as 1000



* Pseudocode
start

input salary

if salary > 10000 ;

salary = salary + 2000

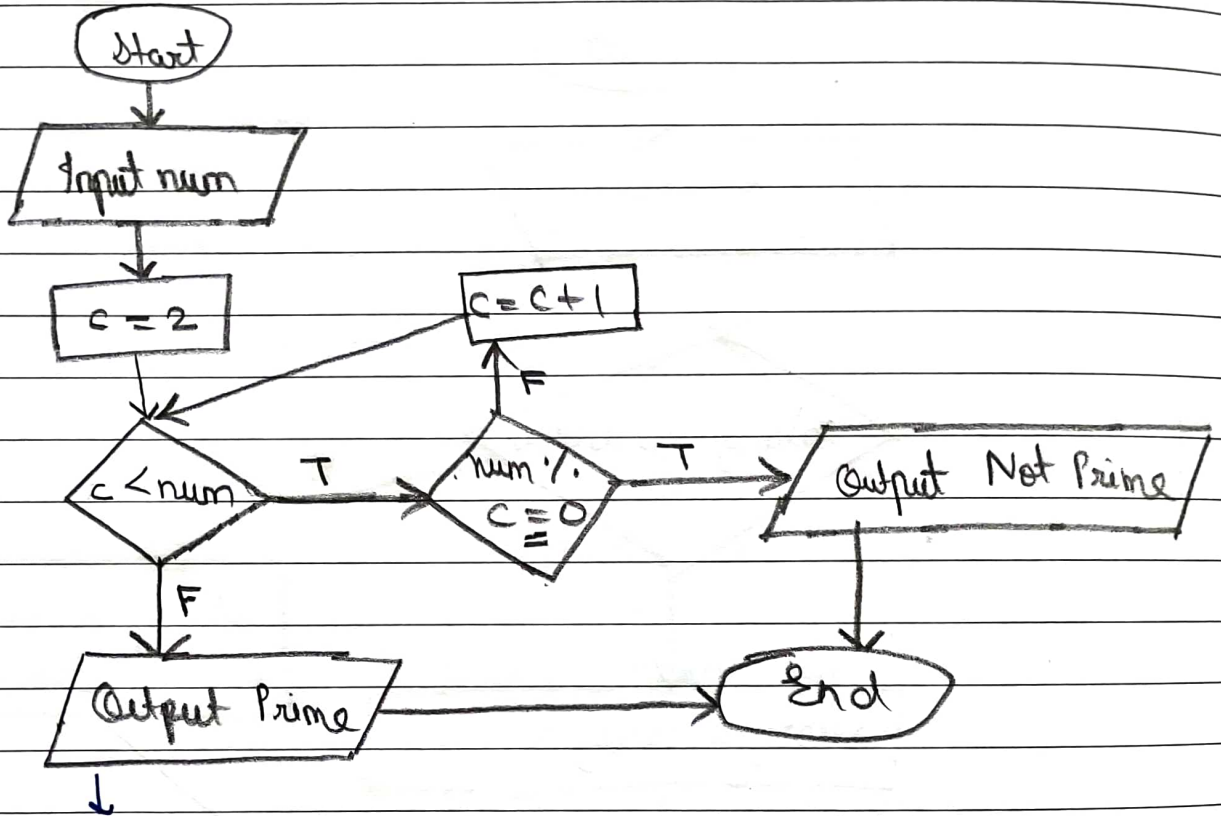
else:

salary = salary + 1000

output salary

exit.

Q3) Input a number and print whether it is prime or not.



Pseudocode -

start

input num

c = 2

while c < num,

if num % c == 0,

output "not prime" ; exit

c = c + 1

end while

output "prime"

* More explanation for Q3
 Suppose $n=36$

$$\left. \begin{array}{l} 1 \times 36 = 36 \\ 2 \times 18 = 36 \\ 3 \times 12 = 36 \\ 4 \times 9 = 36 \\ 6 \times 6 = 36 \end{array} \right\}$$

1x and that no itself

$$\left[\begin{array}{l} 9 \times 4 = 36 \\ 12 \times 3 = 36 \\ 18 \times 2 = 36 \\ 36 \times 1 = 36 \end{array} \right\}$$

ignore

check till square root of num

$$c < \sqrt{36}$$

$$c < 6$$

Updated pseudocode

start

input n

if $n \leq 1$;

print ("neither prime nor composite")

$c = 2$

while $c * c \leq n$;

if $n \% c == 0$;

output "not prime"

exit

$c += 1$;

end while

output "prime"

exit

$$\text{int}(\text{sqrt}(17)) = 4$$

e.g. 17

2, 3, 4

$c = 2$

$4 < 17 \checkmark$

$c = 3$

$9 < 17 \checkmark$

$c = 4$

$16 < 17 \checkmark$

$25 < 17 \times$

output prime