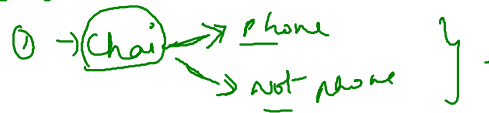
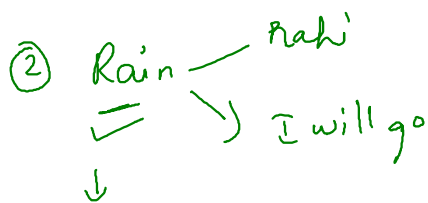


Conditional Statements.



Agar nager waali baatein



Humans

X

Conditional Stan

if, ifelse, elseif, switch

if statement.

int a = if { } X

if(condition) {
 =
 }

cont = true
 Executed

int a = 5; True

if(a) {
 cout << "Hello";
 }

if(i) {
 =
 }

HELLO

Even (num % 2 == 0) Even Number

if () => Even

2 | 5
 4
 1
 X

2 | 4
 4
 0
 Even

2) if-else

$$\frac{x}{\frac{A}{B}}$$

✓ A
B

Syntax

if(condition) {

≡
} else {

≡
}

Voting.

int age = 15;

if (age >= 18) {

← age = 19

cout << "Eligible to vote," // op.
} else {

cout << "Not eligible to vote;"
} // op.

✓ if(n > 0) {
n = -n;
cout << n;
} else {
n = -n;
cout << n;
}

$$\begin{array}{c} \text{---ve} < 0 > \text{+ve} \\ \text{---ve} \\ \frac{-5}{18} \\ n \end{array}$$

n = 5
5 > 0 ✓
n = -5
cout = -5

n = -7
-7 > 0 ✗

n = -n
= -(-7)
n = 7 //

3) else if

multiple conditions.

Syntax:

if(✓ condition) {

≡
} else if(✓ condition) { ✗

≡
} else if(✓ condition) {

≡
} else {
✗ ✓
}

B ⇒
Wm

Take user's bank account balance as input and print:

- "Low Balance" if less than ₹1000 ✓
- "Sufficient Balance" if between ₹1000 and ₹10000
- "High Balance" if more than ₹10000

1000 ✓
LB
b > 1000 & < 10000
balance < ₹ 10,000
if (balance < 1000) {
} else if (balance > 1000 & balance < 10000) {
} else if (balance > 10000) {
} else {
}

3000

300 < 100 ✓ 2000 <= 100,

Program : %3 & %5

3 5
✓ 6 10
9 15
12 20
15 25
18 30
21 35
24 40
27 45
30 50

15 → 3 5
6 → 3
10 → 5
29 → Not 3 & 5

1 <= & <= 1

(num % 3 == 0 & num % 5 == 0)

4) nested if-else →

Number + & even

if (num > 0) {
if (num % 2 == 0) {
+ve & even
} else {
+ve & odd
}
} else {
}

if (num < 0) {
if (num % 2 != 0) {
} else {
}

} else {
}

} else { cout << "Number is -ve; } }

3) greatest of 3 number

a, b, c

if (a > b) {
if (a > c) {
} else {
}

print a = 9, b = 8, c = 11
(9 > 8 ✓)
9 > 11
a
c

outer

```

if(a > b) {
    if(a > c) {
        a
    } else {
        c
    }
} else {
    if(b > c) {
        b
    } else {
        c
    }
}

```

$a \neq c$
 \uparrow
 $\neq b, c$

→ Ternary Operators (conditional)
 3 operands

condition ? (True) : (false)

(10 > 20)
 $a = 10 \quad b = 20$
 $a > b ? \text{"a is greatest"} : \text{"b is greatest"}$
 \downarrow

int v = (a > b) ? \checkmark : \checkmark
 if { } else { }
 { }
 int v = 1

int a=15;
 string result=(a<10)?"Small":(a<20)?"Medium":"Large";
 cout<<result;

Medium

a = 5
 $\checkmark 5 < 10 \rightarrow \text{Small}$

a = 15
 $15 < 10 \times$
 $15 < 20 \checkmark$

a = 100
 $(100 < 10 \times)$
 Large
 $100 < 20 \times$

5) switch statement :



```
int itemNumber = 2;
switch (itemNumber) {
```

```
    case 1 : cout << "samosa"
```

break;

```
    case 2 : cout << "burger"
```

break;

```
    case 3 : cout << "chips"
```

break;

```
    default : cout << "Item not available";
```

```
}
```

switch(expression) {

case 1:

break;

... case 2;

break;

default:

=

X { out
burger
chips
Item not

burger

+ - * / %

user
a + b

switch(op)

case '+'

cout << (a+b)

case '-'

cout << (a-b)

=