LOGICAL STATEMENTS AND OPERATORS

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LOGICAL STATEMENTS (1)

A. If statement, if(P) Q;

When P condition is true then execute Q

ex: if(3>2) printf(“3 is bigger than 2”);

 if(3<2) printf(“3 is smaller than 2”);

A. If statement, if(!P) Q;

When P condition is not true then execute Q

A. P has logical operator to check. Ex: 3>2, 2 >3, 2==3

B. Q is an execution statement

LOGICAL STATEMENTS (2)

A. else statement, if(P) Q else R;

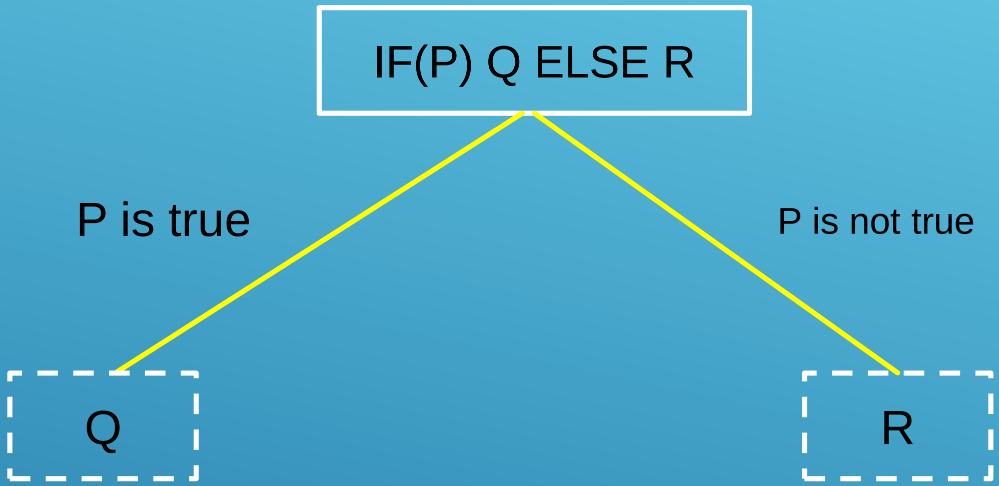
When P condition is not true then execute Q

A. else statement, if(!P) else Q;

When P condition is true then execute Q

A. P has logical operator to check. Ex: 3>2, 2 >3, 2==3

B. Q is an execution statement



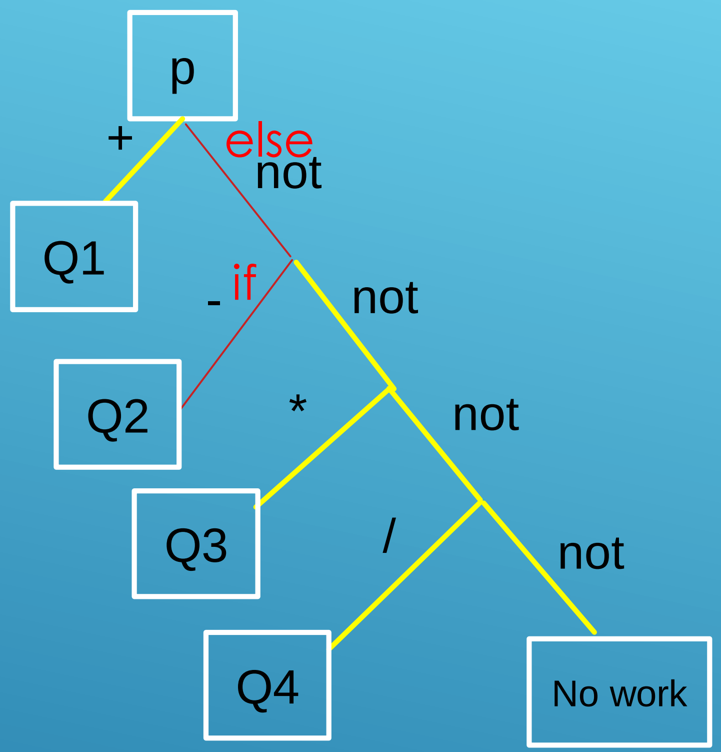
IF(P) Q ELSE R

P is true

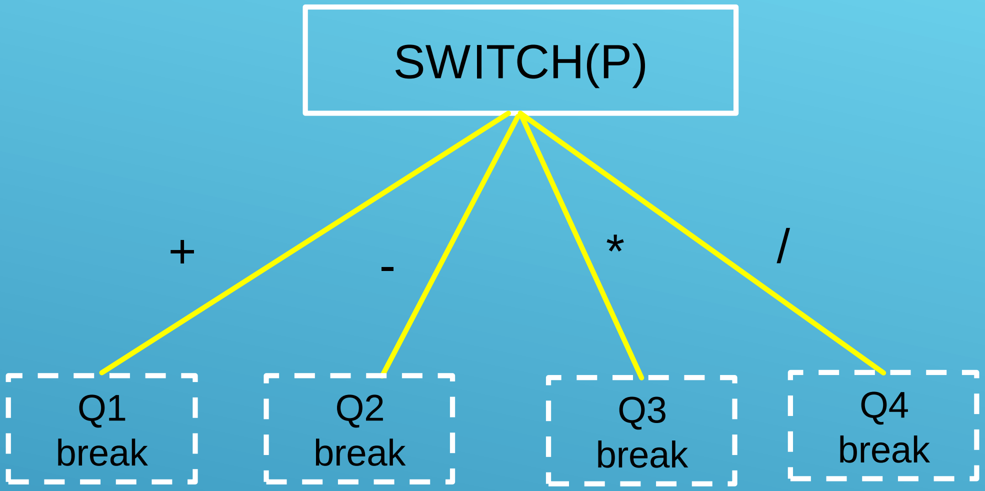
P is not true

Q

R



```
if(p=='+') Q1;
else if(p=='-') Q2;
else if(p=='*') Q3;
else if(p=='/') Q4;
else printf("No work");
```



```
Switch(p){
Case '+': Q1; break;
Case '-': Q2; break;
Case '*': Q3; break;
Case '/': Q4; break;
Default: printf("No work");
}
```

AND operator(&&)	P1(T)	P1(F)
P2(T)	TT	TF
P2(F)	FT	FF

Condition P with P1 and P2

If(p1&&p2) Q1; Q1 will be executed only with one red conditions

<table>
<tr><th>or operator(| |)</th><th>P1(T)</th><th>P1(F)</th></tr>
<tr><td>P2(T)</td><td>TT</td><td>TF</td></tr>
<tr><td>P2(F)</td><td>FT</td><td>FF</td></tr>
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If(p1 | | p2) Q1; Q1 will be executed with three red conditions

C Programming Operators

- https://www.programiz.com/c-programming/c-operators