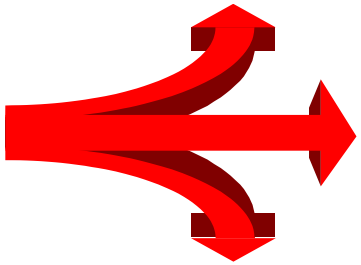

ifs

Lab 05

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What is an if?

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the if statement

if I am hungry
    I eat something

if I am tired
    I go to sleep

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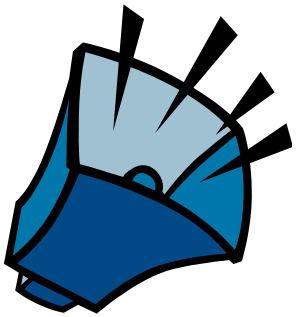
the if statement

if it is dark
I turn a light on

if I can't hear the song
I make it louder



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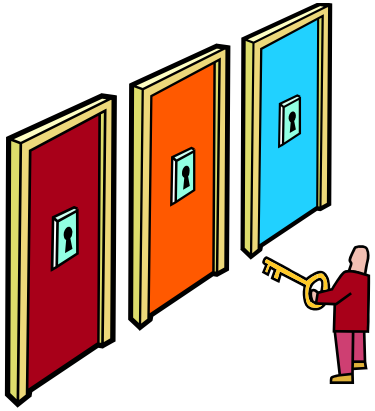
Logic



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Relational

frequently used operators

Operator	Use
x==y	checks if x and y have the same value
x>y	checks if x is greater than y
x<y	checks if x is less than y
x>=y	checks if x is greater than or equal to y
x<=y	checks if x is less than or equal to y
x!=y	checks if x is not equal to y

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boolean

A boolean is any condition or variable that can be evaluated to true or false.

```
10 == 10
boolean isOdd = true;
boolean isEven = false;
```

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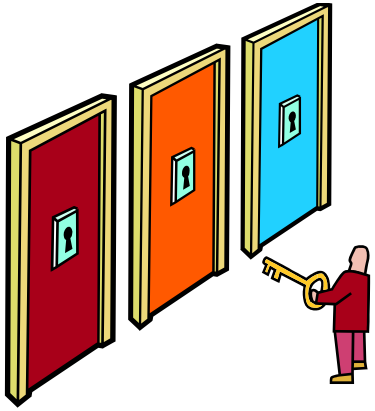
The if statement!



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If Definition

An if statement is a block of code that is associated with a condition. The block of code may execute once or not at all depending on the evaluation of the condition.

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the if statement

```
if (  boolean condition placed here  )
{
   do something 1;
   do something 2;
}
```

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the if statement

```
int one = 109;
if(one<100)
{
  System.out.println("one < 100");
}

if(one>100)
{
  System.out.println("one > 100");
}
```

OUTPUT

```
one > 100
```

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the if statement

```
int uilScore = 240;
if(uilScore==240)
{
  System.out.println("state champ");
}
if(uilScore<100)
{
  System.out.println("work harder");
}
```

OUTPUT

```
state champ
```

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the if statement

```
String stringOne = "big";
if(stringOne.equals("it"))
{
  System.out.println("== it");
}

if(stringOne.equals("big"))
{
  System.out.println("== big");
}
```

OUTPUT

```
== big
```

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the if statement

```
boolean isOdd = true;
if(isOdd == true)
{
  System.out.println("isodd");
}

if(isOdd == false)
{
  System.out.println("iseven");
}
```

OUTPUT

```
isodd
```

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open ifone.java ifoneui.java

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open iftwo.java

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open ifonestring.java

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open ifoneboolean.java

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open ternary.java

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nesting ifs

```
int num=7;
if(num>2)
{
   if(num<10)
      System.out.println(">2<10");
   if(num>10)
      System.out.println(">2>10");
}
```

OUTPUT

```
>2<10
```

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open ifnesting.java

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common errors

```
If(total >= 25);
{
}

if(total = 10)
{
}
```

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{ and ; rule

Never put a ;
before an open { brace

;{ **illegal**

}; **legal**

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Start work on Lab 05

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