Third notes COM 1321

IF STATEMENTS

1.if statements.

Syntax:

If(condition){

//block of cade to be executed if condition is true

}

-if condition is true then the block of code is executed

-if condition is false then the block of code is skipped

Example:

If(a>b){

System.out.println("a is greater than b");

}

In the above example we have variables a and b, the condition tests if a is greater than b, if a is greater than b then the statement will be executed, if it is not the statement will be skipped

2.else statement

The block of code to be executed if the condition is false.

Syntax:

if (condition) {

  // block of code to be executed if the condition is true

} else {

  // block of code to be executed if the condition is false

}

Example:

```
If(a>b){
System.out.println("a is greater than b");
}
else{
System.out.println("a is not greater than b");
}
```

The else statement is only executed if all above statements are false.

else if statements

they specify an alternative condition if the one before it if false .

syntax:

if (condition1) {

 // block of code to be executed if condition1 is true

} else if (condition2) {

 // block of code to be executed if the condition1 is false and condition2 is true

} else {

 // block of code to be executed if the condition1 is false and condition2 is false

}

As you can see from the demonstration, if any above statement is found to be true then the rest are no longer considered.

Example (from class example)

Write a code snippet to find the largest of 3 numbers.

```java
if(a>b && a>b){

System.out.println("a is the largest");


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

System.out.println("b is the largest");


}
else{

System.out.println("c is the largest");


}
```

In the code above one statement can be printed, if the first one is true then the other ones are not considered.

If the first one is false, then then the second is evaluated and if it is true then the third one isn't considered.

If both the first and second are false the third one is executed.

BRAIN TWISTER:

What is the difference between number 1 and 2?

<u>Number 1:</u>

if(a=>1){

System.out.println("a is greater or equal to than 1");

}

if(a=>5){

System.out.println("a is greater than or equal to 5 ");

}

if(a=>7){

System.out.println("a is greater than or equal to 7 ");

}

Number 2:

```
if(a=>1){

System.out.println("a is  greater or equal to than 1");


}
else if(a=>5){

System.out.println("a is greater than or equal to 5 ");


}
else if(a=>7){

System.out.println("a is greater than or equal to 7 ");

}
```