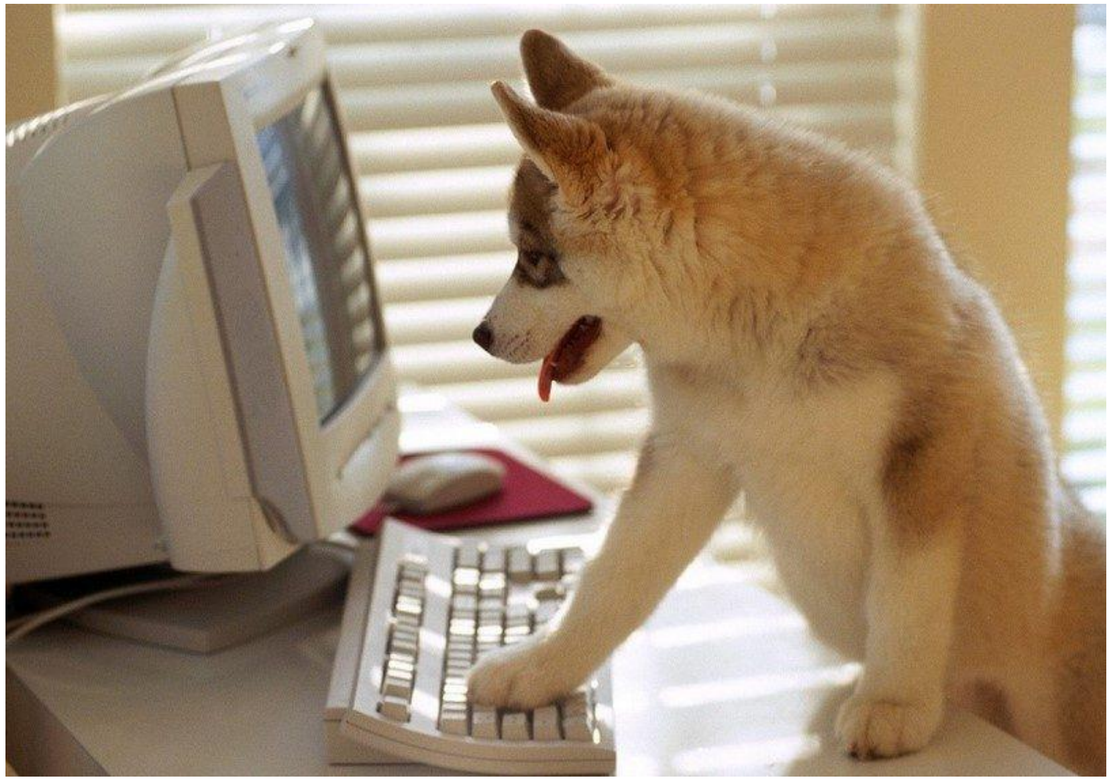
Java Programming



Organizational Stuff

18.03.: Structures
19.03.: Methods
20.03.: Recursion
21.03.: Arrays
22.03.: Strings

25.03.: OOP1
26.03.: OOP2
27.03.: Generics
28.03.: Exceptions & Enums
29.03.: GUI

Scopes

```
public class Scopes{
   int a;

   public void doSomething(){
        int c1 = 4;
        int a1 = c1 + 9;
        a = a1 + c1;
   }

   public void doSomethingElse(int a){
      int c = 7;
      int b = a + c;
      int result = a + b + c;
   }

   public static void main(String[] args){
      doSomething();
      doSomethingElse(7);
   }
}
```

Scopes

```
public class Scopes{
   int a;

   public void doSomething(){
        int c1 = 4;
        int a1 = c1 + 9;
        a = a1 + c1;          //What value is assigned to a?
   }

   public void doSomethingElse(int a){
      int c = 7;
      int b = a + c;
      int result = a + b + c;
   }

   public static void main(String[] args){
      doSomething();
      doSomethingElse(7);
   }
}
```

Scopes

```
public class Scopes{
   int a;

   public void doSomething(){
        int c1 = 4;
        int a1 = c1 + 9;
        a = a1 + c1;          //What value is assigned to a?
   }

   public void doSomethingElse(int a){
      int c = 7;
      int b = a + c;
      int result = a + b + c;  //What is the result?
   }

   public static void main(String[] args){
      doSomething();
      doSomethingElse(7);
   }
}
```

Strings

```
String s = “Hello World!”;
```

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What can we do with this?

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```

What can we do with this?

➔ A lot! ;)

Strings

```
String s = “Hello World”;

s.length();  //10

s.charAt(4); //’o’

s.equals(“Hello”);  //false

s.subString(6); //”World”

s.subString(0,5); //”Hello”

String s2 = String.valueOf(14);  //”14”
```

Strings

```
//normal for loop
for(int i = 0; i<s.length(); s++){
   System.out.println(s.charAt(i));
}

//for each loop
for(char c : s.toCharArray()){
   System.out.println(c);
}
```

Strings

```
String a = “Hello ”;
String b = “World!”;

// simple concatenation
System.out.println(a+b);

//concat method
System.out.println(a.concat(b));

//Stringbuilder
Stringbuilder sb = new Stringbuilder(a);
sb.append(b);
System.out.println(sb.toString());
```

Strings

char	String
`'a'`	`"Hello"`
primitive	complex
`'a'=='b'`	`s.equals("Hello")`
`'a'+'b'`	-
`(int) 'a'`	`Integer.parseInt("12")`

Strings

```
char c = '3';

if(Character.isDigit(c)){
   System.out.println("numeric");
}
else if(Character.isLetter(c)){
   System.out.println("letter");
}
else{
   System.out.println("other");
}
```

```
String s = "15";

boolean isNumeric = true;

for(int i = 0; i<s.length(); i++){
   char c = s.charAt(i);
   if(!Character.isDigit(c)){
      isNumeric = false;
   }
}

System.out.println(isNumeric);
```

Strings

Today's Assignment:
https://classroom.github.com/a/v8Ap5tBW