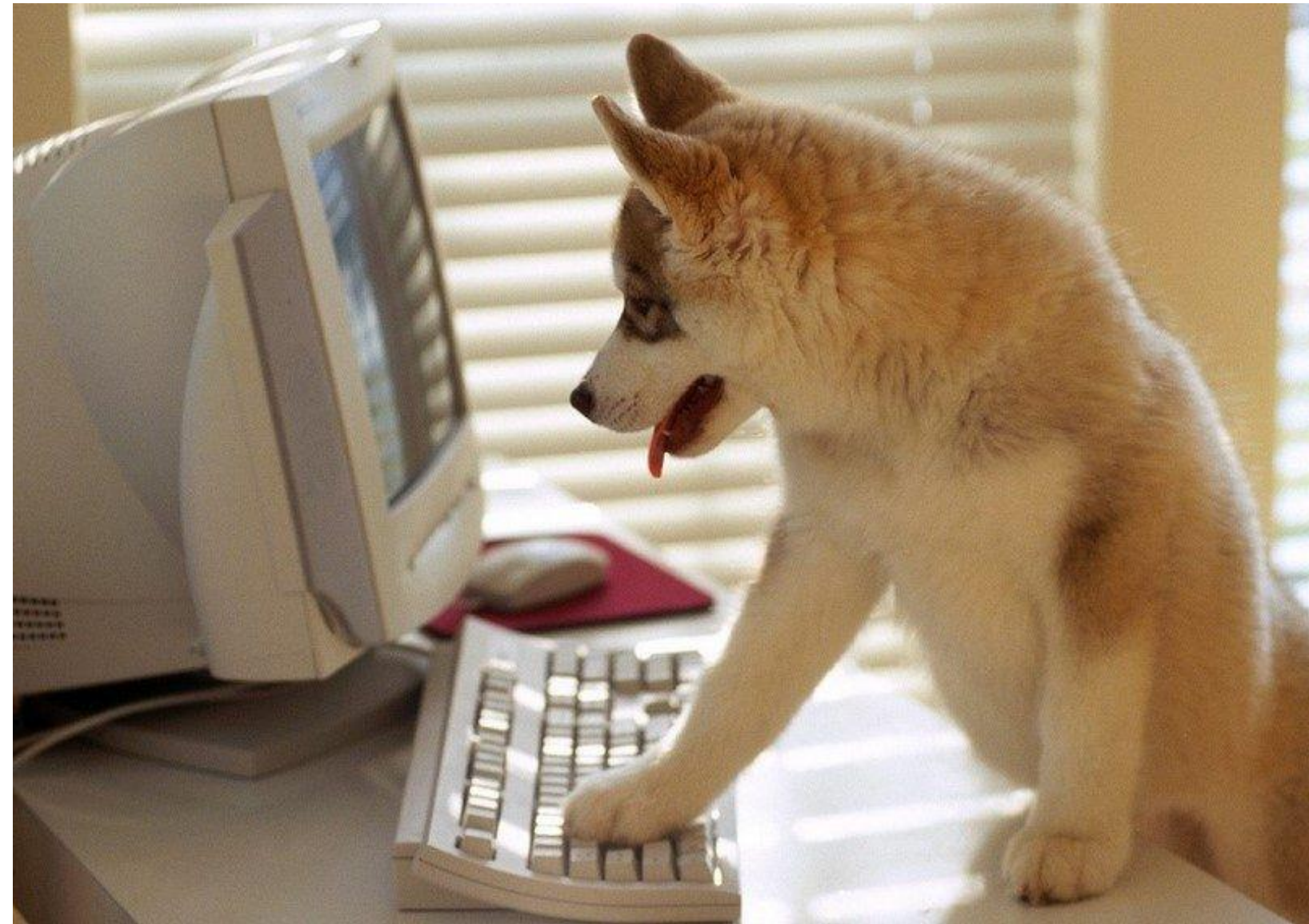


Java Programming



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

Do you remember `public static`? Today comes the explanation ;)

```
public class Book{
    private String title;
    private int isbn;
    private Author author;
    public Book(String title){
        this.title = title;
    }
    public Book(String title, Author author){
        This.title = title;
        This.author = author;
    }
    public void setIsbn(int isbn){
        This.isbn = isbn;
    }
    public void getIsbn(){
        Return isbn;
    }
}
```

```
public class Book{  
    private String title;  
    private int isbn;  
    private Author author;  
    public Book(String title){  
        this.title = title;  
    }  
    public Book(String title, Author author){  
        This.title = title;  
        This.author = author;  
    }  
    public void setIsbn(int isbn){  
        This.isbn = isbn;  
    }  
    public void getIsbn(){  
        Return isbn;  
    }  
}
```

} Attributes

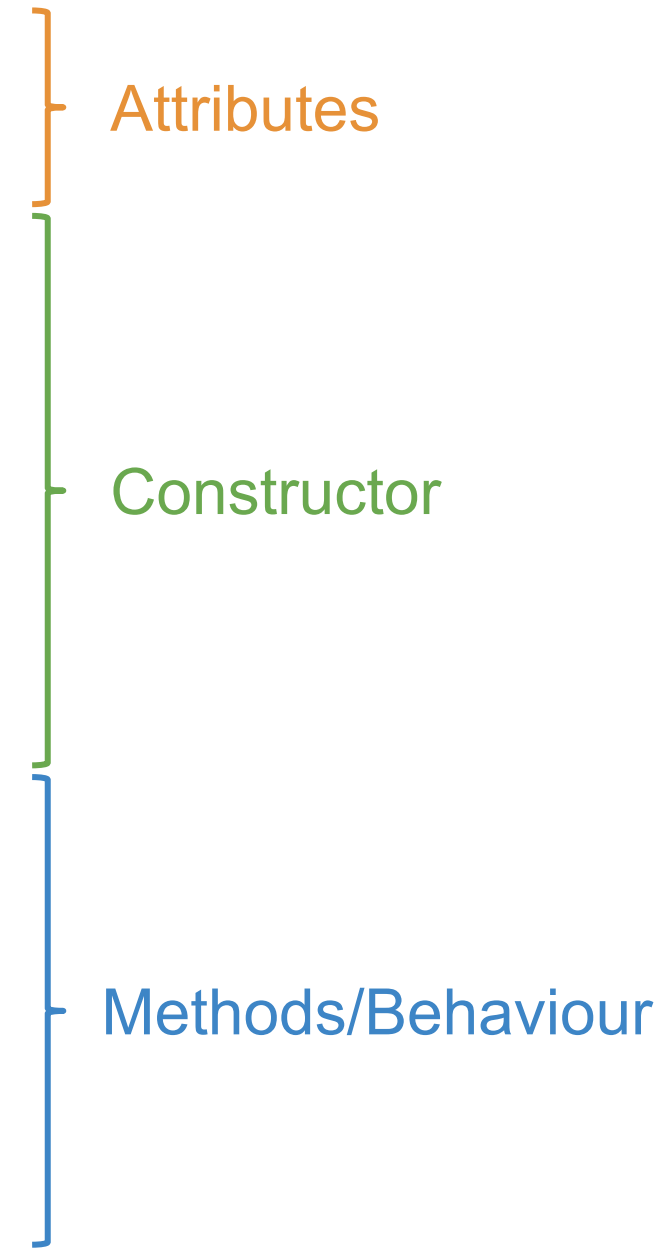
```
public class Book{  
    private String title;  
    private int isbn;  
    private Author author;  
    public Book(String title){  
        this.title = title;  
    }  
    public Book(String title, Author author){  
        This.title = title;  
        This.author = author;  
    }  
    public void setIsbn(int isbn){  
        This.isbn = isbn;  
    }  
    public void getIsbn(){  
        Return isbn;  
    }  
}
```



Attributes

Constructor

```
public class Book{
    private String title;
    private int isbn;
    private Author author;
    public Book(String title){
        this.title = title;
    }
    public Book(String title, Author author){
        This.title = title;
        This.author = author;
    }
    public void setIsbn(int isbn){
        This.isbn = isbn;
    }
    public void getIsbn(){
        Return isbn;
    }
}
```



Attributes

Constructor

Methods/Behaviour

```
public class Book{
    private String title;
    private int isbn;
    private Author author;
    public Book(String title){
        this.title = title;
    }
    public Book(String title, Author author){
        This.title = title;
        This.author = author;
    }
    public void setIsbn(int isbn){
        This.isbn = isbn;
    }
    public void getIsbn(){
        Return isbn;
    }
}
```

Overloading: Same name,
different parameters.


```
public class Book{
    private String title;
    private int isbn;
    private Author author;
    public Book(String title){
        this.title = title;
    }
    public Book(String title, Author author){
        This.title = title;
        This.author = author;
    }
    public void setIsbn(int isbn){
        This.isbn = isbn;
    }
    public void getIsbn(){
        Return isbn;
    }
}
```

How do we create a *Book*?

```
public class Book{
    private String title;
    private int isbn;
    private Author author;
    public Book(String title){
        this.title = title;
    }
    public Book(String title, Author author){
        This.title = title;
        This.author = author;
    }
    public void setIsbn(int isbn){
        This.isbn = isbn;
    }
    public void getIsbn(){
        Return isbn;
    }
}
```

```
Public static void main(String[] args){
    Book harryPotter = new Book("Harry Potter");
    harryPotter.setIsbn(1234567);
}
```

```
public class Book{
    private String title;
    private int isbn;
    private Author author;
    public Book(String title){
        this.title = title;
    }
    public Book(String title, Author author){
        This.title = title;
        This.author = author;
    }
    public void setIsbn(int isbn){
        This.isbn = isbn;
    }
    public void getIsbn(){
        Return isbn;
    }
}
```

```
Public static void main(String[] args){
    Book harryPotter = new Book("Harry Potter");
    harryPotter.setIsbn(1234567);
}
```

What about the author?

```
public class Book{
    private String title;
    private int isbn;
    private Author author;
    public Book(String title){
        this.title = title;
    }
    public Book(String title, Author author){
        This.title = title;
        This.author = author;
    }
    public void setIsbn(int isbn){
        This.isbn = isbn;
    }
    public void getIsbn(){
        Return isbn;
    }
}
```

```
Public static void main(String[] args){
    Book harryPotter = new Book("Harry Potter");
    harryPotter.setIsbn(1234567);

    Author author = new Author("J.R.R. Tolkien");
    Book lotr = new Book("Lord of the Rings",
                        author);
}
```

OOP1

`public` : visible to everyone

`private` : visible just in the class

`protected` : ?

```
Book b = new Book("Some awesome title");  
b.setIsbn(9876543);
```

```
Book.read();
```

}

}

Today's Assignment:

<https://classroom.github.com/a/Z41gbGSu>

