

# **METHODS & OTHER STUFF**

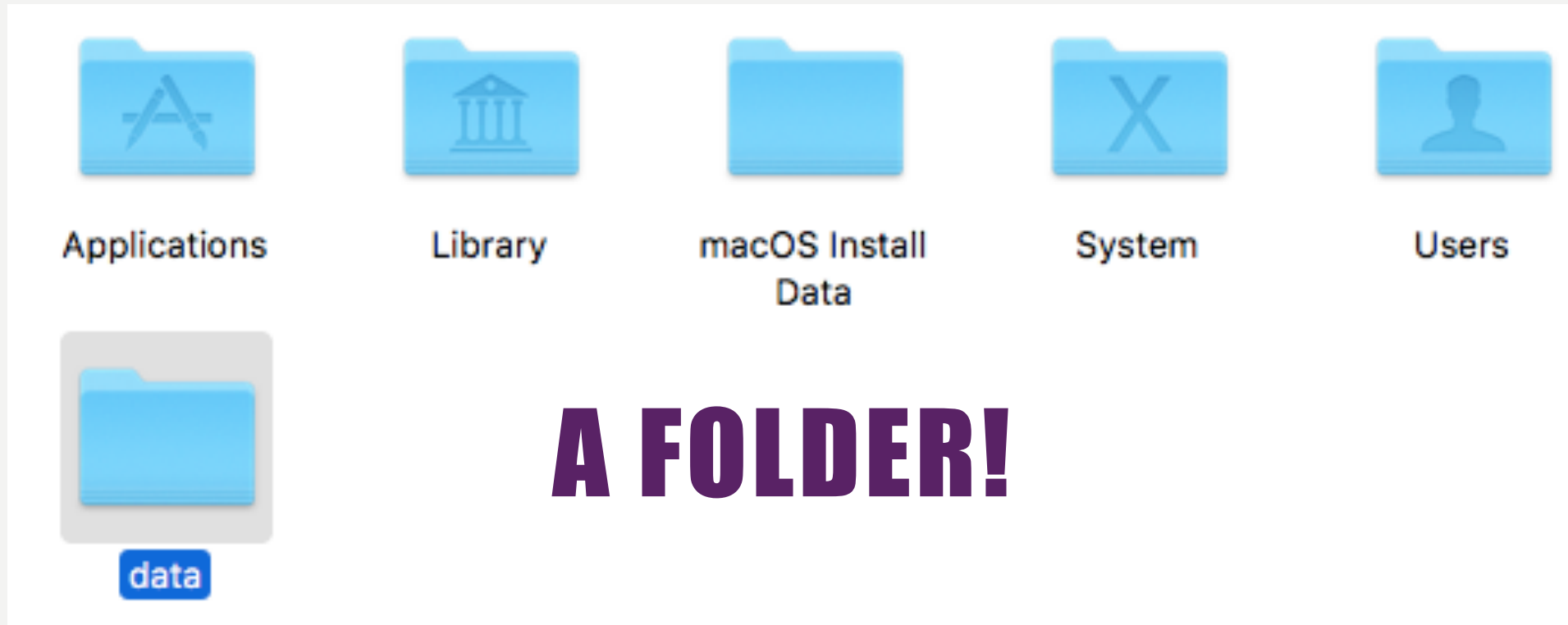
**SLIDES CREATED BY ANNEMARIE  
CABALLERO**

# METHOD HEADER

```
public static void main (String[] args) {  
    ...  
}
```

- access
- we're not worrying about it right now
- return type
- method name
- parameters
- {} – beginning and ending of method

# WHAT'S A DIRECTORY?



Old MacDonald had a farm (with print statements).

# FUNCTIONS VS. PROCEDURES

- Function – a method that returns a value
  - Examples:
    - Adding two variables
    - Checking if two words are the same
- Procedure – a method that completes an action
  - Examples:
    - Print with a certain format
    - Main method

# WHY USE ADDITIONAL METHODS?

- Organization
  - Don't put all your code in main
- Comprehensibility
  - Important to have specific titles
- Minimizing repetition
  - Faster and more readable
- Reusable (do less work)
  - The best part

**Easier to  
debug and  
test**

# SYNTAX VS. STYLE

**SYNTAX** – rules for how you format code

## IMPORTANT INFO:

- end every line with a ;
  - `System.out.println("yikes");`
- some words are reserved, so don't use them as names
  - `final`
- make sure all your curly braces are closed
  - `}`
- comments are written using `//` or `/* */`
- some characters (like the backslash and quotation marks) if you want to print them need to be written like `"\"` and `"\"`

**STYLE** – how you should format code

## IMPORTANT RULES:

- all Java names (except the class name) should have a lowercase first word and capitalize the rest of the words
  - `String helloWorld = "Hello World";`
  - Called **camelcase**

# CALLING A METHOD

**CALLING** - when  
you use(run,  
execute) a  
method inside  
another method



```
1 public class PrintName {
2
3     public static void main (String[] args) {
4         printName("AnneMarie Caballero");
5         System.out.println(getName());
6
7     }
8
9     //this is a procedure
10    public static void printName(String name) {
11        System.out.println(name);
12
13    }
14
15    //this is a function
16    public static String getName() {
17        return "AnneMarie Caballero";
18    }
19
20 }
```

# COMMON COMPILER ERRORS

HelloWorld.java:10: error: ';' expected – missed a ;

HelloWorld.java:13: error: reached end of file while parsing – need to close {}

No main methods alert - syntax of main's method header is wrong

HelloWorld.java:7: error: class Helloworld is public, should be declared in a file named Helloworld.java – class name different from file name

HelloWorld.java:7: error: class, interface, or enum expected – did not put main method in a class

HelloWorld.java:10: error: not a statement – generally bad

HelloWorld.java:10: error: ')' expected - didn't close parentheses

HelloWorld.java:10: error: unclosed string literal – didn't close quotation marks

HelloWorld.java:10: error: cannot find symbol – used a method name or variable that doesn't exist