Unit 2
- Structure of a Java Program
- Documentation
- Types of Errors
- Example

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Java's Compiler + Interpreter

Editor

Compiler

MyFirstProgram.java

MyFirstProgram.class

This is you…

Interpreter   **Interpreter**   **Interpreter**
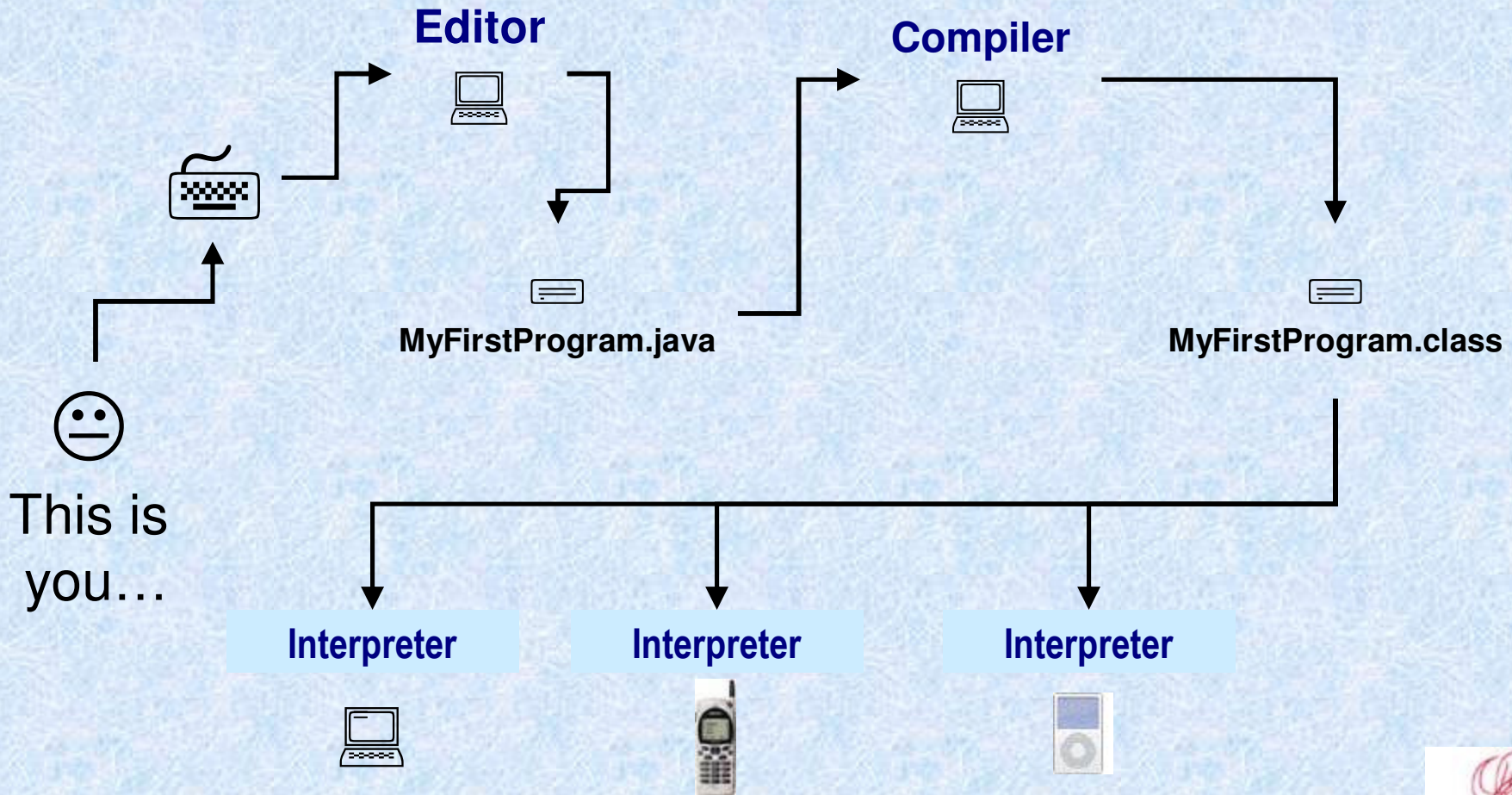
JAVA

Structure of a Java Program

For Unit 2, you will be writing the most basic form of Java Programs. They look like this:

```
public class SomeName          ← This name must match the filename.
{

        public static void main (String [ ] args)
        {

                statement;          This is where the program starts.
                statement;          It looks for the "main method" and
                statement;          begins here.
                …

        }

}
```

Documentation
(called "comments" in Computer Science)

```java
// Name:                          At the top of each file, I would like you
// Last Changed:                  have the following documentation
// Description: What does this program do.
public class SomeName
{

        public static void main (String [ ] args)
        {

                statement;

                …

        }

}
```
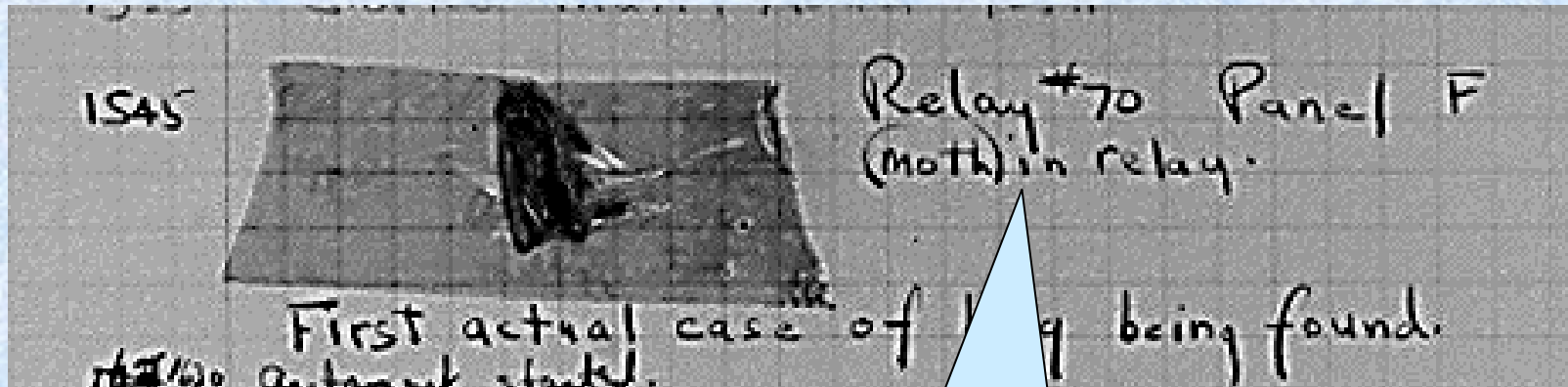
JAVA

Types of Errors

Syntax Error: an error that the compiler gives you. This could
be a missing ";" misspelled word, missing (), etc

Logic Error: an error that causes the program to not work
correctly. A.K.A. "Software Bugs"
Example: If the program required you
to draw an octagon and you drew a hexagon.

The First "Bug"

"(moth) in relay"

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Output to the console screen in Java
(the little black screen)

Two output methods:
```
1) System.out.println(someString);
2) System.out.print(someString);
```

Examples

```
String firstName = "Mike";
String lastName = "Efram";

System.out.println(firstName);
System.out.println(lastName);

System.out.print(firstName);
System.out.print(lastName);

System.out.println(firstName + " " + lastName);
```

JAVA