

Lecture 3 start

In Java, you don't give source code
↳ To run file you give java file

Must encapsulate class definitions so people cannot mess up your code from run file

Example - stack - node

Instead of letting them access a node element directly, give them method `getElement()`

So can't do `f.element = 5`

but can `int i = f.getElement()`

Sample code from board

```
int count (Stack s) {  
    int n = 0;  
    Stack copy = new Stack();  
    while (!s.isEmpty()) {  
        copy.push(s.pop());  
        n++;  
    }  
    while (!copy.isEmpty()) {  
        s.push(copy.pop());  
    }  
    return n;  
}
```

↓ this is inefficient

→ Better to create new class

```
public class UStack extends Stack {  
    private int counter;  
    public UStack() {  
        Super();  
        counter = 0;  
    }  
    public void push(int o) {  
        Super.push(o);  
        counter++;  
    }  
    public int pop() {  
        counter--;  
        return Super.pop();  
    }  
    public int getCounter() {  
        return counter;  
    }  
}
```