

WS34 - SINGLETON PATTERN

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A single Pattern is one of the simplest design patterns in Java. It makes sure that **a class only has one instance**. This class provides a way to access its only object which can be accessed directly without need to instantiate the object of the class.

The screenshot displays the Apache NetBeans IDE with two Java files open: `OregonTax.java` and `Calculator.java`. The `OregonTax` class implements the Singleton pattern, and the `Calculator` class uses it.

```
1 package ec.edu.espe.oregonTax.model;
2 import java.util.Scanner;
3
4 /**
5  *
6  * @author Alvarez Michelle DEEL-ESPE
7  */
8 public class OregonTax { // Tax is 9.9%
9     private static OregonTax instance;
10    private OregonTax() {}
11
12    public static OregonTax getInstance() {
13
14        if(instance == null)
15            instance = new OregonTax();
16
17        return instance;
18    }
19
20    public float salesTotal() {
21
22        float amoutToPayWithTax;
23        float taxAppliedToSale;
24        final float taxValueInOregon = (float) 0.099;
25        float sale;
26    }
```

```
1 package ec.edu.espe.oregonTax.controller;
2
3 import ec.edu.espe.oregonTax.model.OregonTax;
4
5 /**
6  *
7  * @author Alvarez Michelle DEEL-ESPE
8  */
9
10 public class Calculator {
11
12    public static void main(String[] args) {
13        OregonTax tax = OregonTax.getInstance();
14        tax.salesTotal();
15    }
16 }
```

The Output window at the bottom shows the execution results:

```
run:
Introduce de amount of your sale: 100
In Oregon State, the total amount to pay including the tax of 9.9% is: 109.9 dollars.
BUILD SUCCESSFUL (total time: 2 seconds)
```