

## Lab 10

### Part 1: Decorator

Write an html formatting application that can create the correct html string from a given text.

For example if our given text is “hello world!” then our application can convert this text as follows:

**Plain Text:** Hello, World!

**Bold:** **<b>Hello, World!</b>**

**Italic:** **<i>Hello, World!</i>**

**Underline:** **<u>Hello, World!</u>**

**Strikethrough:** **<s>Hello, World!</s>**

Our application can easily make all kind of html formatting combinations:

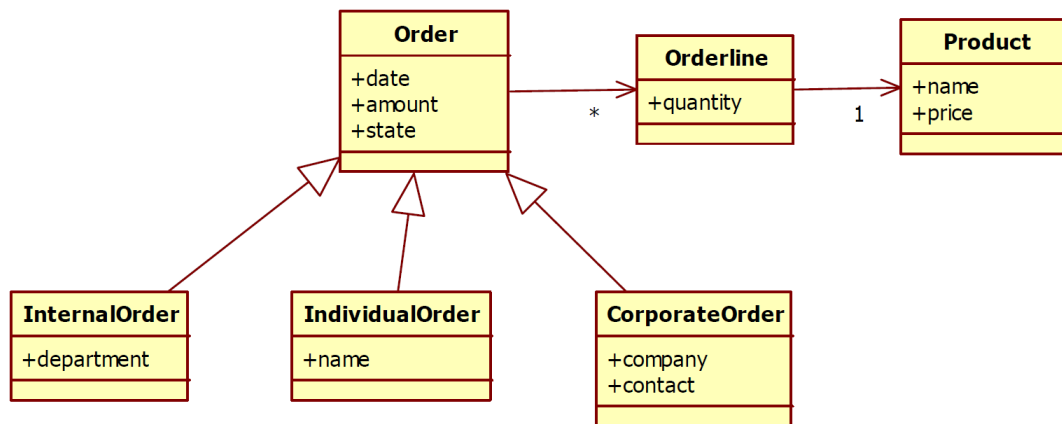
**Bold + Strikethrough:** **<s><b>Hello, World!</b></s>**

**Bold + Italic + Underline + Strikethrough:** **<s><u><i><b>Hello, World!</b></i></u></s>**

Use the composite pattern to implement your solution.

## Part 2: Visitor

a. Implement the following application:



Then create an `OrderCollection` class that contains a list of `Orders`.

Then write the following Visitors:

1. A Visitor that counts how many Internal, how many Individual and how many Corporate orders we have.
2. A Visitor that tells us the total amount of all orders in the Collection
3. A Visitor that tells us how many TV's are ordered

Test if your visitors work correctly.

- b. What is the main advantage of the Visitor pattern?
- c. What is the main disadvantage of the Visitor pattern?