

RECITATION 3

In this assignment you will write a program to filter the uppercase letters in an input string. It is pretty much like the program in the lecture, but this time it should be implemented as a bean class that implements an interface. And you also use `ObjectEditor` to enter the input string and to get the uppercase string, which is a string consisting of all of the upper case letters in the input string.

- To follow the bean pattern, you should have two string properties:
 - `inputString`
 - `uppercaseLetters`
- You also need two getter methods for each of the properties: `InputString`, `UppercaseLetters`.
- Since the input string is the user specified variable while the uppercase letter string is not, you should only have one setter method, which is for the input string.
- You can either put the code for filtering in the getter method, setter method or in a separated method.
- You have to put tracing print statements in the getters and setters.
e.g., `System.out.println("getInputString is called")`
 - This will let you know when your method has been called

- Make sure you create an interface for your bean class class. We provide the main class.
- Name your interface “UppercaseFilter”
- Name your class “An UppercaseFilter”
- You need to add annotations above the header of the class.
- The annotations are:

```
import util.annotations.StructurePattern;  
import util.annotations.StructurePatternNames;  
import util.annotations.EditablePropertyNames;  
import util.annotations.PropertyNames;  
@StructurePattern("Bean Pattern")  
@PropertyNames({"InputString", "UppercaseLetters"})  
@EditablePropertyNames({"InputString"})
```

The code of the main method is provided. So you need to name the class and interface accordingly (class name: AnUppercaseFilter. Interface name: UppercaseFilter).

Also note the import statement and “ObjectEditor.edit(filter)”. Later you will need the code to use ObjectEditor in homework.

```
import bus.uigen.ObjectEditor;
public class Driver {
    public static void main(String[] args){
        UppercaseFilter filter = new AnUppercaseFilter();
        filter.setInputString("Initial Input");
        ObjectEditor.edit(filter);
    }
}
```

Bean Pattern:

<http://www.cs.unc.edu/~dewan/comp114/current/Lectures/ClassDualRoles-F15.pdf>

Interface: <http://www.cs.unc.edu/~dewan/comp114/current/Lectures/RecursionInterfaces.pdf>