

Object Oriented Java - Practical Study #2

The aim of this session is to familiarize with Java Object-Oriented programming concepts.

You should learn how to:

4. Use existing classes and build new ones;
5. Be confident with the concepts of new, method, field, private, public, static, extends, implements;
6. Build an interface to an existing class to certain conditions.

- The source file for the example described in the Lecture is in “**Prac2**” directory: Create a project in **Prac2** to manage the example files.
- Open the file **ManagerTest.java** (the main file), study it carefully bearing in mind the new concepts delivered in the lecture and the above requirements 1-3. [*Day.java is a file that contains useful methods for manipulating the date and time You don't need to be concerned with it's details at this stage*]
- If you are satisfied that you understand the code, compile and run the ManagerTest program.
- Finally, write an **interface** *PensionScheme* for the Employee class to implement a pension-scheme function as described in the lecture.
 - 1) It is best if the interface is created in its own file (PensionScheme.java). To do this use [**File → New File → Java → Java Interface**]. The “*interface*” name is **PensionScheme**.
 - 2) The interface should contain a signature for a method that calculates employee's pension as follows:

```
public double calculatePension();
```

- 3) In the Employee class, add an implementation for the **calculatePension()** method declared in the interface. Calculate the pension to date as the *equivalent of a monthly salary for every year in service*.
- 4) Print the calculated pension for all employees.