

Intro to Java

Libraries / School

The “School” class library

This library models a simple school of:

- **teachers**
- **students**
- **persons** (both teachers and students are persons, not necessarily a person is a teacher or student)
- **homework**

Create a package named `org.redischool.introjava` via the `File->New` menu of IntelliJ IDEA and save the 4 classes of this library in this package. This corresponds to the directory `org/redischool/introjava` on your computer. To download the files, click on their names, then right-click on the “Raw” button in GitHub and select “Save Link As...” or similar.

In your main class, that should be located outside of the package just created, import the classes:

```
import org.redischool.introjava.Teacher;  
import org.redischool.introjava.Student;  
import org.redischool.introjava.Homework;  
import org.redischool.introjava.Person;
```

Create teachers and students giving them a name and surname:

```
Teacher teacher = new Teacher("Mark", "M.");  
Student s1 = new Student("Jenny", "J.");  
Student s2 = new Student("Robert", "R.");
```

Teachers and students are polite and great each other:

```
s1.greet(teacher);  
s2.greet(teacher);  
teacher.greet(s1);  
teacher.greet(s2);
```

Create homework, or ask a teacher to invent one:

```
Homework h1 = teacher.inventNewHomework();  
Homework h2 = new Homework("Exercise with methods and properties");
```

Teachers assign homework to students:

```
teacher.assignHomework(h1, s1);  
teacher.assignHomework(h1, s2);  
teacher.assignHomework(h2, s2);
```

And students do their homework:

```
s1.doHomework();  
s2.doHomework();
```

Objects prints messages when you operate with them, producing a dialog that resembles one in the real life.

```
Jenny J.: Good morning Mark  
Robert R.: Good morning Mark  
Mark M.: Good morning Jenny  
Mark M.: Good morning Robert  
Mark M.: What about 'Sort an array of integers'?  
Mark M.: Jenny, please do the homework 'Sort an array of integers'  
Mark M.: Robert, please do the homework 'Sort an array of integers'  
Mark M.: Robert, please forget your previous homework, do 'Exercise with methods and properties' instead  
Jenny J.: doing my homework 'Sort an array of integers' ...  
Jenny J.: ... done!  
Robert R.: doing my homework 'Exercise with methods and properties' ...  
Robert R.: ... done!
```

