

# Programmieren 2

## Repetitionsübung SW0

### Aufgabe 1

```
public class Person
{
    private String firstName;
    private String surName;

    public Person()
    {
        this.firstName = "";
        this.surName = "";
    }
    public Person(String firstName, String surName)
    {
        this.firstName = firstName;
        this.surName = surName;
    }

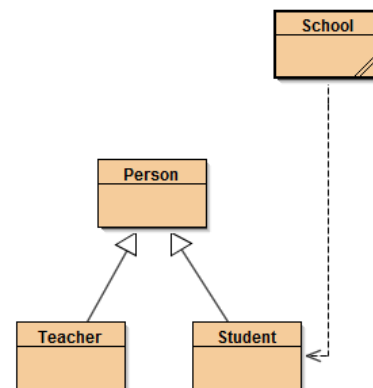
    public void setFirstName(String firstName)
    {
        this.firstName = firstName;
    }

    public String getFirstName()
    {
        return firstName;
    }

    public void setSurName(String surName)
    {
        this.surName = surName;
    }

    public String getSurName()
    {
        return surName;
    }

    public void print()
    {
        System.out.println("First Name: "+firstName);
        System.out.println("Surname: "+surName);
    }
}
```



```
public class Student extends Person
{
    private static int number = 1000;
    private int studentNumber;
    private String course;

    public Student(String firstName, String surName)
    {
        super(firstName, surName);
        this.studentNumber = number++;
        this.course = "";
    }

    public Student(String firstName, String surName, String course)
    {
        super(firstName, surName);
        this.studentNumber = number++;
        this.course = course;
    }

    public void setCourse(String course)
    {
        this.course = course;
    }

    public String getCourse()
    {
        return course;
    }

    public int getStudentNumber()
    {
        return studentNumber;
    }

    public void print()
    {
        super.print();
        System.out.println("Course: "+course);
    }
}
```

```
public class Teacher extends Person
{
    private String subject;
    private double salary;

    public Teacher(String firstName, String surName)
    {
        super(firstName, surName);
    }

    public Teacher(String firstName, String surName, String subject, double salary)
    {
        super(firstName, surName);
        setSubject(subject);
        setSalary(salary);
    }

    public void setSalary(double salary)
    {
        this.salary = salary;
    }

    public double getSalary()
    {
        return salary;
    }

    public void setSubject(String subject)
    {
        this.subject = subject;
    }

    public String getSubject()
    {
        return subject;
    }

    public void print()
    {
        super.print();
        System.out.println("Subject: "+getSubject());
        System.out.println("Salary: "+getSalary());
    }
}
```

```
import java.util.HashMap;
import java.util.Iterator;

public class School
{
    private String name;
    private HashMap<Integer, Student> studentList;

    public School(String name)
    {
        studentList = new HashMap<Integer, Student>();
        this.name = name;
    }

    public static void main(String[] args)
    {
        School school1 = new School("Hochschule Luzern");

        Student s = new Student("Thomas", "Galliker", "PRG2");
        school1.enrolStudent(s);
        s = new Student("Viktor", "Giaccobbo", "PRG2");
        school1.enrolStudent(s);
        s = new Student("Michael", "Müller", "PRG2");
        school1.enrolStudent(s);

        school1.printStudents();
    }

    public void setName(String name)
    {
        this.name = name;
    }

    public String getName()
    {
        return name;
    }

    public void enrolStudent(Student s)
    {
        studentList.put(s.getStudentNumber(), s);
    }

    public void printStudents()
    {
        Iterator<Integer> it = studentList.keySet().iterator();
        while(it.hasNext())
        {
            Integer current = it.next();
            Student s = studentList.get(current);
            s.print();
        }
    }
}
```