Notice: Return your C++ source codes into **Oma** before deadline. Only so you can get credits from this homework. You can't return these source codes after deadline.

Next tasks are from the page 192-193 of Java Book (Silander, Ollikainen & Peltomäki).
URL: http://edu.metropolia.fi/java/Java_Metropolia_AMK.pdf

1. Implement a class **ChargeCard** which has one property **balance** and methods **increaseBalance**() and **payment**(). Implement the default constructor which resets the value of balance. One parametric constructor set for the balance value of the parameter value. Please note, that default constructor can implement so that default constructor calls the parametric constructor. Implement also a test class where you create one card, put money on the card and do some shopping by charge card.

2. Implement a class **Student**, which have properties **studentnumber**, **firstname** and **surname**. You have to encapsulate properties and implement public **set**- and **get**-methods. Implement a method, which prints properties of student.

3. For class **Student** implement the default constructor and three parametric constructor. Implement the default constructor so that default constructor calls the three parametric constructor. Default values are : student numer is 0, first name is "Test" and surename is also "Test".

4. Implement a class **Test** in which you create three students and print properties of them. You have to use method print.

5. Implement a class **StudentGroup** have properties **groupcode** and **contactStudent** which is an object of class **Student**. You have to encapsulate the properties of class **StudentGroup**. You have to implement public **set**- and **get**-methods for all properties of class **StudentGroup**. Implement two parametric constructor and method which prints values of properties of **StudentGroup**.

6. Develop class **StudentGroup** so that it contains an array which contains references for all students. Develop the constructor of class **StudentGroup** so that it needs three parameters. The third parameter is an array which we just added to the class.

7. Develop class **StudentGroup** so that it contains new method **addStudent(student)** which add the student to the student group.