

## **Console application that controls the business of a store that is lending Products to clients.**

### Description:

A rental store lends two types of Products to clients, product types are Alfa and Beta, and a data system serves the business. The store starts with a total of 150 Products in stock (100 Alfa and 50 Beta).

- Every single product (Alfa and Beta) have a unique product code label.
- Each Product has a unique text description (DescriptionAAA, Description AAB, ...).
- Each Product has one out of 5 properties (PropertyA, PropertyB, ...).
  
- Users can search and display info about the Products that are in stock.
- Users may choose one Product and get information about it.
- The user may choose one and the 5 Properties and will then get a list with the in-stock products of respective property.
  
- The user can choose to proceed as administrator part or client.
  
- Clients can either register by first and last name and will then get a unique client number, or they can use an already assigned client number to log in. Identification of clients is with reading from console.
- The client that are identified can:
  - o Hire Products (for a set number of dates)
  - o Return Products
  - o Reserve Products
  
- The administrator controls the hiring price and calculates the penalty for not returning the lent Product in time.

### Limits:

- The project should consist of a **console application**.
- This is a simple project that will be used as a demo only. No need to overwork.
- Keep code clean and simple with plenty of describing comments. The code should be easy to understand for beginners.
- Build up the classes that contain only the most important attributes and methods: client class, product class with two derived classes for Alfa and Beta and an administrator class.
- Develop a simple **Sql Server CE Database** that serves the business, with three tables that stores information about clients, in-stock Products and Products that are rented out.
- Project should be developed in **C#** and compatible with **Visual Studio 2010**

### Documentation requirements:

- Max 3 pages containing a brief description of the solution, database structure and class diagram.
- MS Word format, or other editable format.