

Homework: Naming Identifiers

This document defines the homework assignments from the ["High Quality Code" Course @ Software University](#). Please submit as homework a single **zip** / **rar** / **7z** archive holding the solutions (source code) of all below described problems.

Problem 1. Unknown Method

You are given a project **ConsoleApplication1** which is correct, does not have any bugs, but the code is written really badly. Rename all identifiers you need to make the code more readable, easy to understand and reusable.

You may need to debug and examine the project more closely.

Problem 2. LINQ Queries

You are given an application which processes orders. The application has **products**, **categories** and **orders**. Each item has a unique **ID**. The entities (products, categories and orders) are connected using their IDs. For example, if there are the following categories:

ID: 1, Name: Beverages
ID: 2, Name: Condiments

and the following products:

ID: 1, Name: Chai, CategoryID: 1
ID: 4, Name: Chef Anton's Cajun Seasoning, CategoryID: 2,

this means that the product **Chai** belongs to the category **Beverages**.

You are given a program which reads comma-delimited text files and loads the data into the system. After that, the program performs four LINQ queries, as follows:

- Gets the names of the 5 most expensive products
- Gets the number of products in each category
- Gets the top 5 products (with maximal number of orders)
- Gets the name of the most profitable category (the category which generates the largest total revenue)

The program work correctly. Your task is to rename all identifiers you need in order to make the code more readable, more easily understandable, and easier to modify and extend.

You can refactor anything else you wish (extract methods / classes, add comments, etc.). Just make sure the program still works correctly after refactoring.

Problem 3. Game

You are given a project called **Application2**. Rename all identifiers (variable names, methods, classes, namespaces, etc.) you need to make it more readable, easy to understand and reusable.

Refactor the project beyond renaming the variables, so that the code is well-formatted and easy to read, understand and modify.

Some ideas: you can add comments to explain some tricky places in the code; you can improve the code formatting; you can extract code into methods, classes, and namespaces; you can apply the OOP principles; etc.