

# Market Storage Management System

## Requirements:

### 1. We need functionalities that provides the following:

- a. **'++'** operation for increasing the **quantity** by 1 and **price** depending on the price of the single product;
- b. **'\*'** operation for multiplying the **price** of specific product by 10;
- c. **'=='** operation that is 'true' when two products have two **target countries** and **total price** above 500.

### 2. Sorting functionalities as following:

- a. **Overloaded Sort** -> comparing the products by Serial Number - ASC;
- b. **Quantity comparer** logic for comparing the products by quantity;
- c. **Countries comparer** logic for comparing the products by countries length.

### 3. Basic Export functionalities for:

- a. Creating **external text file** and save the current products list (using **FileInfo/DirectoryInfo** implementation as specific system requirement).

### 4. Advanced Export functionalities (Serializing/Deserializing) for:

- a. Save/Load the current products list in **XML file**;
- b. Save/Load the current products list in **Json file**.

\* Requirements number 3 and 4 are our TOP priority functionalities.

\* We need to have control over the potential errors -> in case of IO error we need to have the possibility to read the details from Log text file located on the local File System.