Lab - Refactoring with Existing Tests

Introduction

We have provided you with a starter project (C# and JavaScript flavours - sorry, no Java) complete with unit tests. The application behaves as expected, however, its code-base could benefit from some refactoring.

Goals

1. Examine the code in the starter project.
2. Run the tests, to see that the all initially pass.
3. Run the program itself, and observe the output, to help you understand what the application is meant to do and how it is meant to behave.
4. Using the different refactoring principles, identify where some refactoring could potentially be done.
5. Add comments to the code to highlight these places, and begin to refactor the code.

Rules

1. All unit tests must still pass when the refactoring is done (without the tests having to be changed!)

C# instructions

Open the project using the **Lab 5.sln** file.

Run the application using F5 or Ctl-F5.

Run the tests using the Test menu > Run all tests.

JavaScript instructions

Open the folder containing the project using Visual Studio Code, then open a terminal in the same folder.

First, ensure all dependencies are installed, using:

```
    npm install
```

`Change package.json to`

```
{
    "name": "Starter",
    "version": "1.0.0",
    "description": "",
    "main": "ShoppingBasket.js",
    "scripts": {
        "test": "mocha *.test.js"
    },
    "keywords": [],
    "author": "",
    "license": "ISC",
    "dependencies": {
        "chai": "^4.2.0",
        "mocha": "^7.2.0"
    }
}
```

Run (or re-run) the tests using:

```
npm run test
```

Run (or re-run) the application using

```
npm run start
```