

Product Sorting Console Application Project

Project Overview: You are tasked with creating a C# console application that reads a CSV file containing product data, sorts the data based on various criteria, and displays the sorted results in the console. Please follow standard design practices and do not use any external NuGet packages.

Application Requirements:

1. Read a CSV file containing product data. The CSV file should have columns for Product Name, Price (in ZAR), and Quantity.
2. Provide the user with a menu to choose from the following sorting options:
 - Sort by Price (ascending)
 - Sort by Quantity (ascending)
 - Sort alphabetically by Product Name (ascending)
 - Group by Product Name and sort each group by Price (ascending)
3. Display the sorted or grouped data in the console.
4. Ensure that the application handles any potential errors gracefully (e.g., missing file, invalid CSV format).
5. Provide user-friendly prompts and messages throughout the application.

Submission Instructions:

1. Implement the application based on the project structure provided.
2. Use C# for coding.
3. Ensure that no external NuGet packages are used in the project.
4. Provide clear comments/documentation for your code.
5. Test the application thoroughly to ensure it works as expected.
6. Prepare a ZIP file containing your project folder and all necessary files.
Alternatively upload to a git repo and share the link.
7. Submit the ZIP file, along with any additional instructions or notes, if necessary.
8. Create Unit tests for testing any functions.

Evaluation Criteria:

- Correctness and completeness of the application.
- Adherence to coding standards and best practices.
- Clarity of code and comments.
- User-friendliness of the application.
- Error handling and edge case handling.
- Unit test coverage

Good luck with your project, and feel free to reach out if you have any questions!