

Coding assignment

It's a relatively simple task focusing mainly on checking your code cleanliness, OOP and usage of basic design patterns.

Use strictly C# and .Net Core 3.1+.

You can use public NuGet packages (if needed).

Follow **SOLID** principles.

Approximate completion time: 2 hours (but we do not strictly limit).

Documentation and UnitTests are **not** required. Complex command line arguments parsing is **not** required as well. Please focus on OOP and extensibility.

Implement console application "**DataProcessor**".

Application fetches data from some "source" and performs some "processing" for fetched data.

We need to support "file" source of data in our first version:

1) Two required parameters: "--filePath" and "--dataType".

2) Support three dataType-s: "binary", "text" and "textReverse".

2-1) In case of binary the application should output first 5 bytes of data in base64 format.

2-2) In case of text the application should output first 7 letters of presumably textual data in UTF8 format.

2-3) In case of textReverse the application should output first 6 letters of presumably textual data in reverse order in UTF8 format.

Do **not** implement, but make sure that we'll be able to add **more "sources"** of data to our application easily and perform processing of same three dataType-s over it.

"Easily" – means without rewriting or copy-pasting existing classes.

For example:

- "database" which would get some piece of data by sql-query from file (passed as parameter).
- "eventLog" which would get latest message description from some category of Windows EventLog.

Additional dataTypes may be required in future versions as well.