Job Challenge – Sr Clinical Software Engineer (ClearCheck)

Goal

You are given a Visual Studio 2022 project (.NET 8) and some sample DICOM data.

The goal is to fix some logic and extend the sample Windows C#.NET WPF app on your own and demonstrate your changes to the Radformation panel.

The task is to use the DICOM data provided and the EvilDicom library (linked NuGet package) to update and extend the Plan Checker tool alongside the existing UI.

Main Goals

1. For the Plan Checker, fix the Beam Count Check which doesn't show correct results.
2. Implement a Check that ensures the Beam Type is the same among all beams in a plan.
3. Extend the checker app to implement an additional category of checks for an RTSTRUCT file
    - Display in a user friendly way
    - Add a few simple checks

Duration

- 15 minute startup
- 2 hours coding alone (we ask no LLM/AI tools).
- 45 minute panel review with the Radformation team.

Panel Review

A panel of Radformation engineers and the candidate will convene at the end of the 2 hours to discuss and evaluate. The team is looking for insight into how the candidate solves problems, overcomes challenges, and approaches coding and building products.

Help

Feel free to reach out if you run into any issues with the sample project or installation or prerequisites.

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Prerequisites

Ensure you have the following installed:

- .NET 8 SDK - https://dotnet.microsoft.com/en-us/download/dotnet/8.0

Recommend either Visual Studio, Visual Studio Community, or JetBrains Rider for a C# IDE

Quick Start

1. Download and extract the provided CodingChallenge.zip
2. Open the Solution in your IDE and Run
3. Browse to the provided sample DICOM RTPLAN files to start the checker tool