Integration Testing Pipeline for Smart4Diagnostics Platform
Project Management and Software Development for Medical Applications

General Info
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Project Abstract
Software testing has been considered to play a significant role in developing and maintaining software quality within the healthcare sector (see [1]).

In this project, an Integration Testing Pipeline will be implemented to test the RESTful API’s in the Smart4Diagnostics platform, with the objective of improving software quality and reducing time-consumption and costs caused by manual testing.

Background and Motivation
At a time when a pandemic has drastically affected everyday life around the world and a search for “automated COVID-19 diagnosis” produces 38,400,000 results, there is no doubt of the social impact medical software can have and of the need and desire of fast, automated, and high-quality software and processes within the diagnostic industry. It is noticeable, more than ever, how medical software quality can have a tremendous effect on patients’ health, diagnostics, and treatment; since physicians and clinical staff could be relying on these devices and the information given by them to make important patient care decisions.

Therefore, implementations like integration testing to ensure software quality within the healthcare sector, are essential.

Student’s Tasks Description
- Getting familiarized with S4DX APIs
- Creating test case scenarios
- Implementing integration testing pipeline for S4DX Platform’s APIs.
- Setting test protocols for implemented tests.

Technical Prerequisites
- Java programming language
- Familiarity with Rest-Assured is beneficial

References