

Cancer Reporting from Physician EHRS to State Cancer Registries

Overview

State law and regulations require physicians to report details about cancer cases. This data is reported to the various EHR systems in use which are in turn responsible for transmitting the data to the State Cancer Registry. The cancer data must be transmitted with the content specified in the Cancer Implementation Guide. It is the goal of this project to both map the Cancer Implementation Guide to Fhir resources, and to host the profile in a FHIR webservice that may be accessed by both state registries and the EHR systems.

Requirements

Functional requirements resulting from our design discussions are listed below.

Requirement Number	Requirement	Required
1	The team must determine which CDA fields have FHIR field equivalents.	Yes
2	The team must determine which CDA fields do not have FHIR field equivalents.	Yes
3	For those CDA fields with a FHIR equivalent, the team must determine if any constraints are missing.	Yes
4	The team must construct a FHIR Profile to account for any fields or constraints identified as not being present in the FHIR resources.	Yes
5	The team must stand up a FHIR webserver.	Yes
6	The FHIR webserver must host the implemented FHIR profile.	Yes
7	The team must implement an endpoint to determine if a cancer type is required to be reported by law.	No
8	The team must implement an application which the State Cancer Registries may use to process data from the FHIR server.	No

UML Deployment Diagram

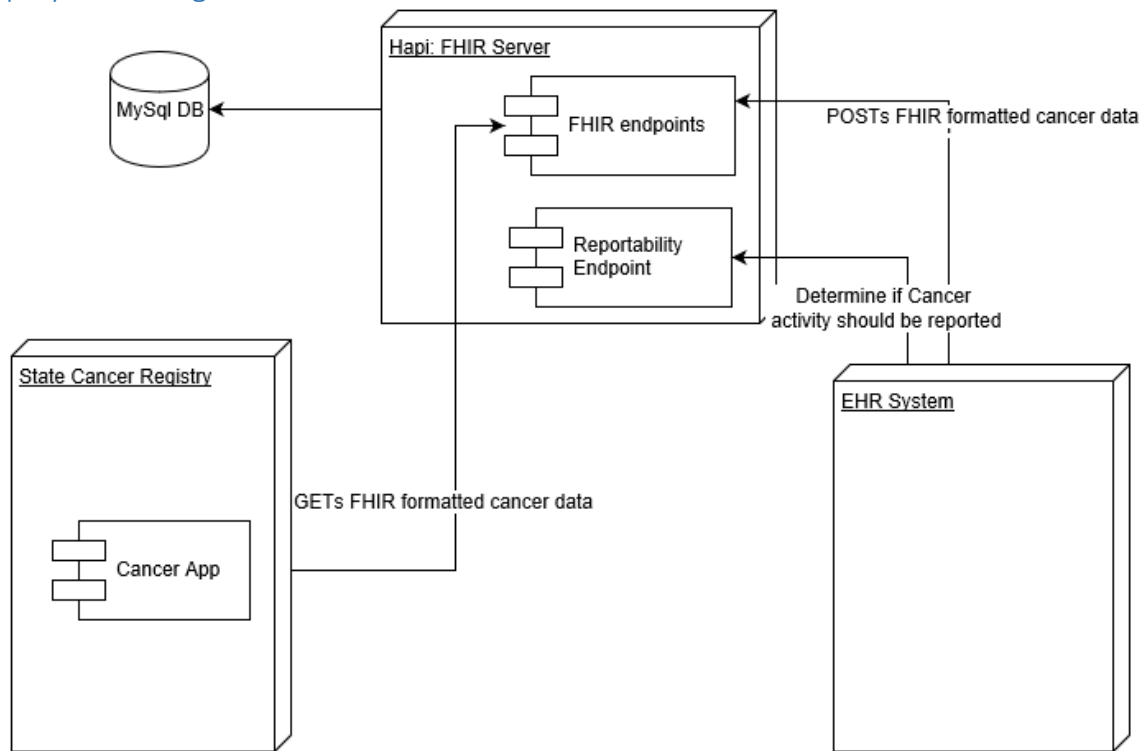


Figure 1 Deployment diagram depicting the major components involved and how they interact.

Reflection

This was an ambitious effort which spanned many aspects of project development. Our team spent a great deal of time in requirements gathering, attempting to build out the complete picture of what was required of us. Having built out a solid understanding, our team tackled the various components and achieved implementation of all the major components. This project has gone far to show the many complexities which must be solved with health care data interoperability.