**National Firefighter Registry – Final Submission**

Term: Fall 2020

Team 55

Project #55

**Section I: Team Details**

Team Members

* Eric Mammoser – QA
* Haolong Yan – Dev
* James Davis – PM
* Rahul Nowlakha – Dev
* Traver Clifford – Dev
* Joe Kurokawa – Dev

TA Mentor

* Elizabeth Shivers – GT

Industry Advisors

* Jill Raudabaugh – CDC
* Breanna Newton – CDC

The National Firefighter Registry (NFR) project is a CDC-sponsored project based off of the Firefighter Cancer Registry Act of 2018. The application accepts input file(s) in JSON, XML, or NDJSON format containing a FHIR Patient resource, FHIR Observation resource, or a FHIR Bundle resource (containing either patients or observations). These input files are processed, posted to a public FHIR server for validation, and then extracted and inserted into a MS SQL database which can be accessed via a Tableau frontend. The primary purpose is to track firefighters who have enrolled in the NFR program to conduct research on cancer amongst firefighters.

Team Member Roles & Responsibilities

Roles can be found for each team member under the team members section, with “Developer” abbreviated with “Dev” and “Project Manager” abbreviated with “PM”

* Developer: Responsible for the creation of JSON, NDJSON, and XML parsers for the patient and observation resource and creation and population of SQL DB
* QA: Validate the parsers with various JSON, NDJSON, and XML patient, observation, and bundle resource examples. Additionally, validation that DB is constructed with the resulting data correctly
* Project Manager: Run weekly meetings, determine deliverables along with plan to create them, plan and track project progress, and develop Tableau visualization dashboard

Final Gantt Chart



**Section II – Application**

**Github Repository: All of your code must be in this repository.**

Final Git Commit: ad702502adb118a93363d33db49d6b0692932200

Github Link: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry>

Branch: master

**Application Details**

App Name: National Firefighter Registry

App URL: None (deployed via Docker per CDC requirements)

The application accepts input file(s) in JSON, XML, or NDJSON format containing a FHIR Patient resource, FHIR Observation resource, or a FHIR Bundle resource (containing either patients or observations). These input files are processed, posted to a public FHIR server for validation, and then extracted and inserted into a MS SQL database.

**Section III – Project Presentation**

Link to Presentation Video: <https://youtu.be/z3CtdRvMdsk>

For slides, see the end of this document (all slides are appended).

**Section IV – Project Documentation**

**Provide direct links to the following**

Final Gantt Chart: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry/blob/master/Final%20Delivery/Gantt.xlsx>

Application Manual: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry/blob/master/Final%20Delivery/Manual.pdf>

Special Instructions: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry/blob/master/Final%20Delivery/SpecialInstructions.md>

Research Directory: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry/tree/master/Final%20Delivery/Research>

Documentation Directory: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry/tree/master/Final%20Delivery/Documentation>

Project Plan: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry/blob/master/Final%20Delivery/Documentation/ProjectPlan.md>

Use Case Model: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry/blob/master/Final%20Delivery/Documentation/UseCaseModel.md>

Design Document: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry/blob/master/Final%20Delivery/Documentation/Design.md>

Test Plan: <https://github.gatech.edu/gt-cs6440-hit-fall2020/National-Firefighter-Registry/blob/master/Final%20Delivery/Documentation/TestPlan.md>