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# SMART-on-FHIR app to pull PDMP

Video Project Deliverable 3

Link to Video: [Youtube Link](#)

Team Code Blue • 2019.03.31

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I, **Imran Yousuf** and Alison Jing Huang, and will be presenting team Code Blue's project deliverable 3. We will begin by presenting the tools we have used thus offer and a brief overview of architectural diagram for the SMART-on-FHIR app.

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## Languages and Tools

- JavaScript
  - Angular
  - Material UI
  - Docker
  - Jenkins
  - Health Data Analytics Platform (HDAP)
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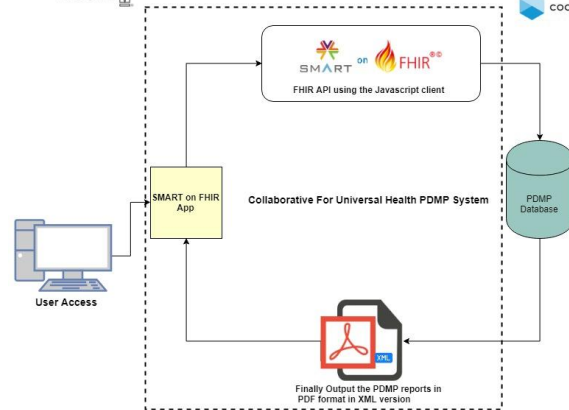
We have built a SMART-on-FHIR app using JavaScript, Angular, and Material UI. Angular and Material UI are frontend frameworks for building web-based applications. We have also created working pipeline with jenkins and used docker to containerize our app. In the future will be using HDAP to obtain synthetic patient data.

# Architectural Diagram

Georgia Tech

CS6440 Introduction to Health Informatics  
Spring 2019 Group Project

codeblue



The Simple Overview of the Solution:

Obtain patient ID info --> Query PDMP --> Return PDMP Reports as PDF

--- Dashed line represents the portion that Team codeBlue with implement

As you can see in the architectural diagram The components enclosed by the dotted lines represents the SMART-on-FHIR app that team Code Blue is implementing. The SMART-on-FHIR app launches from the context of an EHR integration. The app then communicates and makes a request to the FHIR test server MedicationDispense Search APIs, which is represented by the PDMP Database. The FHIR server pulls data from their systems and allows the data to be displayed or exported as PDF. Our application won't be directly integrated with an EHR, so we won't be including the OpenID connect integration.

#Mention parts are done

# SCREEN ONE

🏠 PDMP Reports

Find Patient By ID



Find

Alison: As mentioned by Imran in the previous slide, the current layout of PDMP Reports does not require user authentication due to the fact it does not require the OpenID connect integration, thus making our SMART-on-FHIR app more user friendly. When in need of searching for a specific patient ID, simply move the mouse cursor to the search box, and enter the ID number followed by clicking “Find”, the app will then connect with the FHIR server and pulls corresponding information from the PDMP database and display on the webpage that is ready to be downloaded in PDF format.

# SCREEN TWO

PDMP Reports

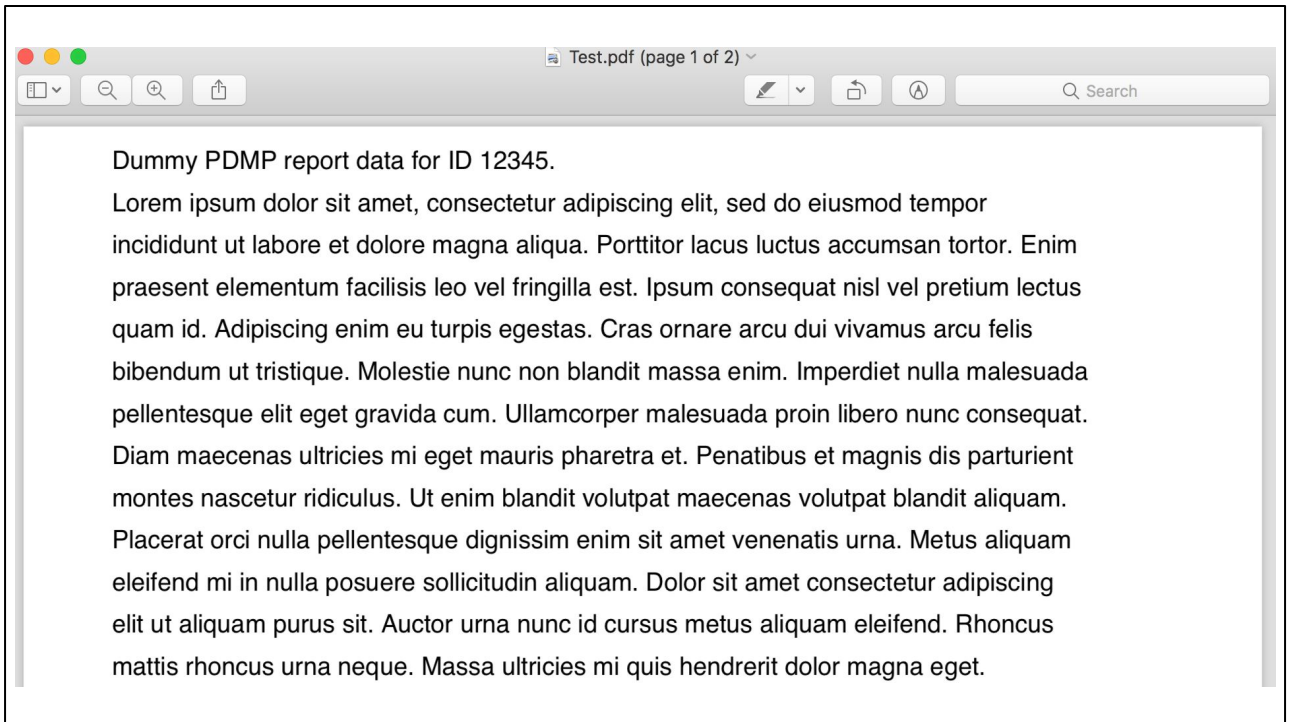
## PDMP Report for Patient ID: 1235

Dummy PDMP report data for ID 1235. Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Porttitor lacus luctus accumsan tortor. Enim praesent elementum facilisis leo vel fringilla est. Ipsum consequat nisl vel pretium lectus quam id. Adipiscing enim eu turpis egestas. Cras ornare arcu dui vivamus arcu felis bibendum ut tristique. Molestie nunc non blandit massa enim. Imperdiet nulla malesuada pellentesque elit eget gravida cum. Ullamcorper malesuada proin libero nunc consequat. Diam maecenas ultricies mi eget mauris pharetra et. Penatibus et magnis dis parturient montes nascetur ridiculus. Ut enim blandit volutpat maecenas volutpat blandit aliquam. Placerat orci nulla pellentesque dignissim enim sit amet venenatis urna. Metus aliquam eleifend mi in nulla posuere sollicitudin aliquam. Dolor sit amet consectetur adipiscing elit ut aliquam purus sit. Auctor urna nunc id cursus metus aliquam eleifend. 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Download PDF

Alison: Here a list of patient’s information has been retrieved and displayed on the screen. Right now we are using a lorem ipsum text for development and testing purpose. Once we have finished the final implementation of FHIR API server integration into our code, it will show some patient information pulled from the PDMP database in conjunction with FHIR server communications. The report would contain important prescription information such as the Date Displayed, Quantity, Strength, Days, Drug Name, Dispenser, City, Prescriber, the Patient Name and Date of Birth, etc.

Then to export the report, simply click “Download PDF” button, the report will be saved in a local computer.



Alison: The downloaded pdf report is illustrated here. Imran will give you a quick live demo next to go thru the entire process.

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# LIVE

<https://cs6440-s19-prj015.apps.hdap.gatech.edu/>

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So we have containerized our app and anytime there is a pull request and a merge to master a new version of the app is built and is deployed to the server. Here is a live demo of your app running on the server!

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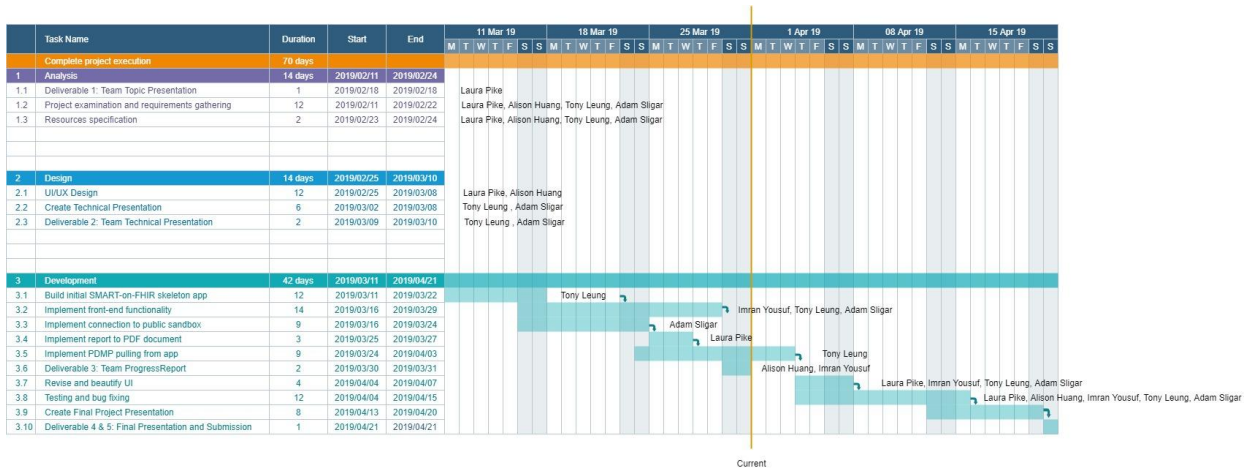
## Discussion

- We have jenkins pipeline ready that builds the app and deploys to the server
  - Final conversion of SMART on FHIR Integration will be included in Deliverable 4
  - The project completion date is April 21st, 2019
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Alison: As we have mentioned prior, the jenkins pipeline has been established to build the app and deploy to the server. Final conversion of SMART on FHIR Integration will be included in the next deliverable, and the project completion date is April 21st, 2019



# Gantt Chart Revision



[Link to Gantt Chart](#)

Alison: At this time we have completed up to 3.1 thru 3.3 and 3.6 of the development phase, notably successfully implemented connection to the public sandbox and Jenkin file, and enabled the feature of report to PDF document functionality in our code. Task 3.5 implement PDMP pull from app has not been completed (for this deliverable) but we anticipate the completion of this task this coming week. The remaining stages to be finished are to revise, beautify the UI, as well as test and fix bugs. After that we have to create a final project presentation and the final deliverables for submission.

# Conclusion

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Adam Sligar  
Imran Yousuf  
Alison Jing Huang  
Tony Leung

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Allison: This concludes our deliverable 3 presentation for Team CodeBlue. Thank you!