

SPYNdoctors

CS6440 – Intro to Health Informatics.

Fall 2017

Nargis Bisset – Project Manager/QA Engineer
Arjun Puri – Project Manager/QA Engineer
Hernando Salas – QA Engineer
Alex Yanovsky – Developer

<https://youtu.be/JdMsVVQPV3Y>





Project

MASTER PERSON INDEX (DOHMPI) WHICH AIDS WITH DE-DUPLICATION AND MAINTAINING CONSISTENT ID FOR ITS DATA SOURCES; SUCH AS THE DEATH INFORMATION SYSTEM, EDEN

Project Mentors

Utah Department of Health

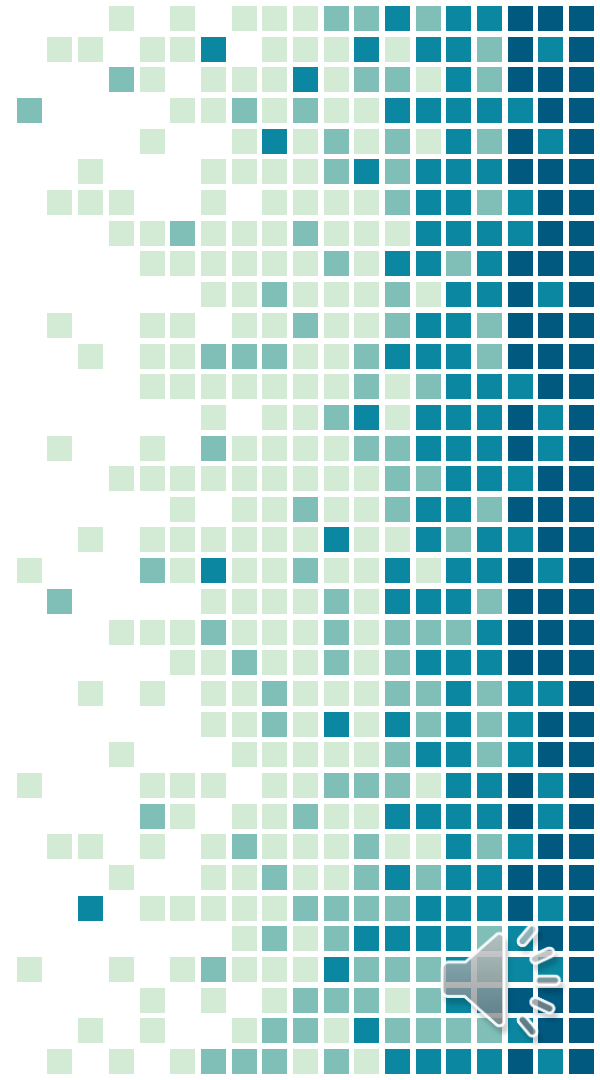
Dr. Kailah Davis

Dr. Jeffrey Duncan



1.

Project Background Information



Project Background Information – 1

Utah Department of Health tools:

1. **EpiTrax :** Integrated communicable diseases data
2. **DohMPI :** Department of Health Master Person Index.
3. **EDEN :** Electronic Death Entry Network



Project Background Information - 2

EpiTrax:

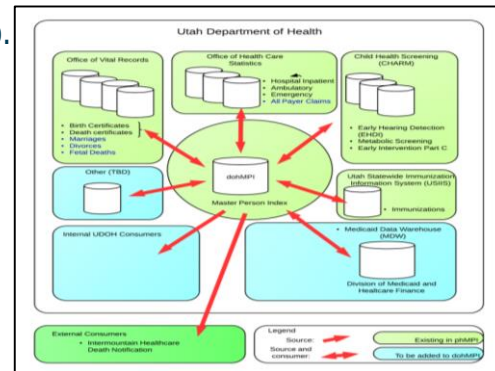
- Java web application - provides data on communicable diseases for local health departments
- Consolidates data from various separate databases, e.g. on tuberculosis, STD, HIV, etc.



Project Background Information – 3

DohMPI:

- Database facilitating de-duplication of patients across participating major Utah health data systems.
- Participating systems: Vital Records (births, deaths, etc.), HealthCare Statistics, Medicaid Data warehouse, and many others.
- stores DEMO data (name, DOB, etc) next to ID's of the given patient in all participating systems
- maps DEMO data to ID's; no program-specific info.



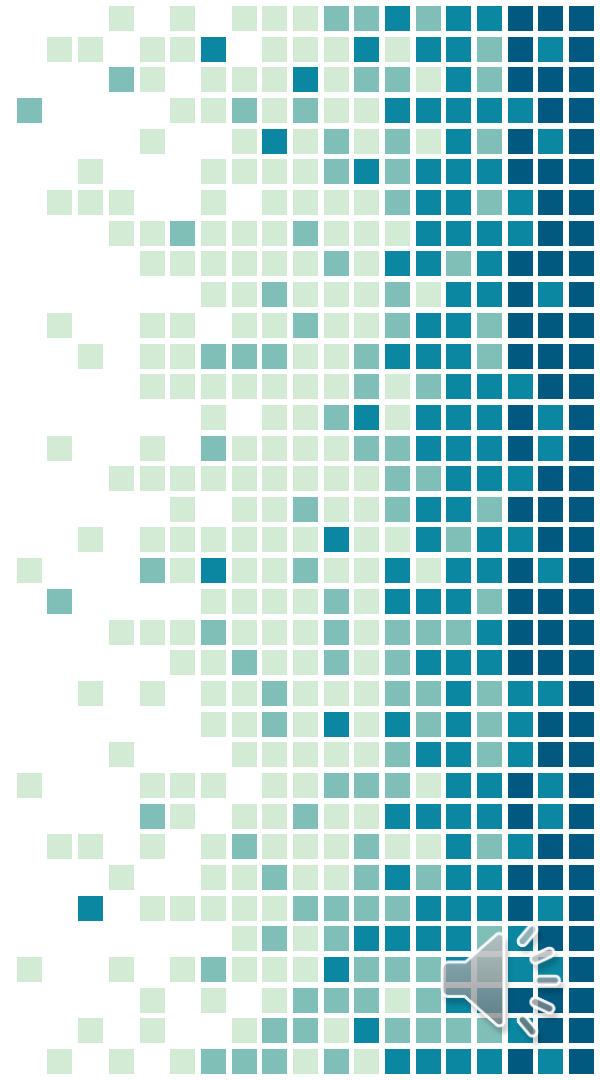
Project Background Information – 4

EDEN:

- records deaths, causes, antecedent causes, co-morbid conditions, etc.
- participates in DohMPI : the EDEN ID values are mapped to DEMO data represented in DohMPI
- data from EDEN not currently easily accessible to EpiTrax



2. Project Goal



Project Goal – 1

Goal:

Providing access to EDEN data for EpiTrax users.

Potential Benefit:

Information on death causes – critical for communicable disease studies.

Access to EDEN data will satisfy numerous important use cases and save effort for epidemiologists.



Project Goal – 2

Means for Achieving the Goal:

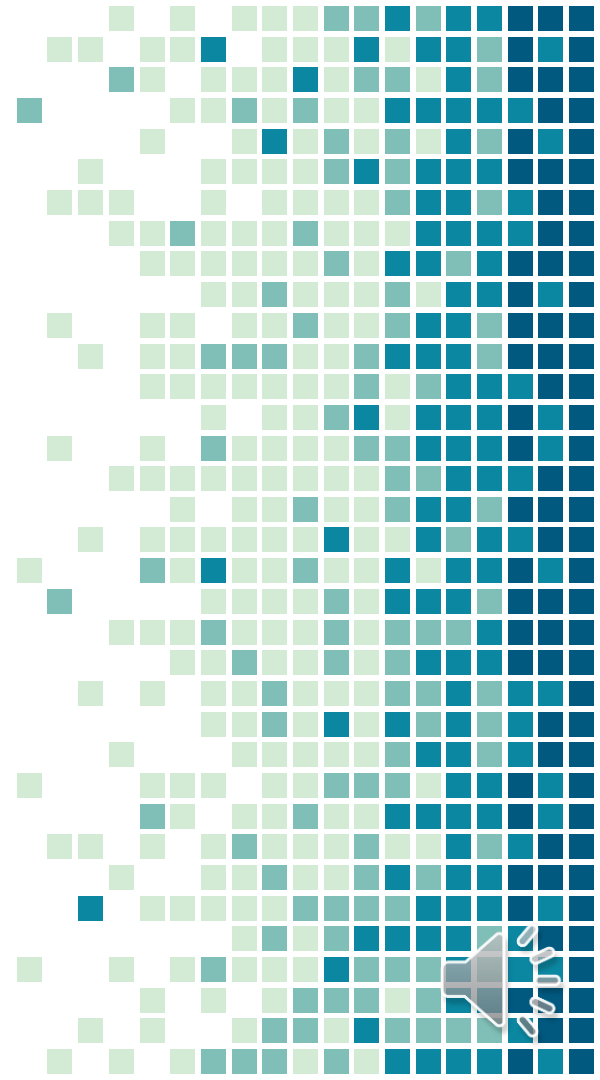
Developing web service which would return info from EDEN record in response to given DEMO data

Web service will operate in two steps:

1. Retrieving EDEN ID from dohMPI based on the DEMO data.
2. Retrieving data from EDEN based on the EDEN ID from step 1.



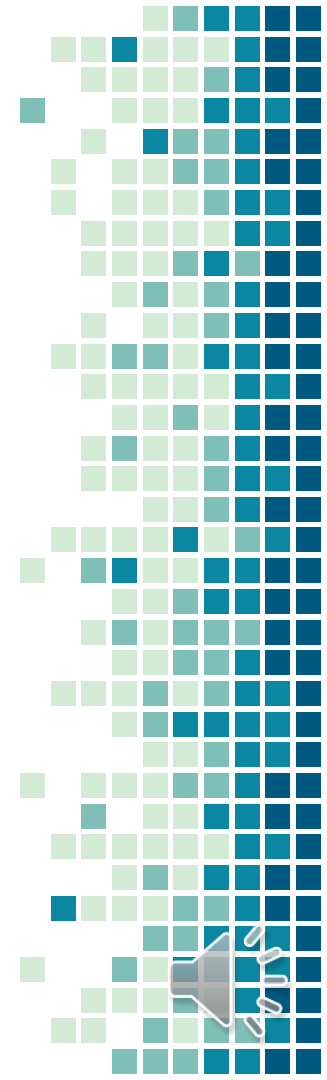
3. Project Plan



Project Plan

General Plan of Attack:

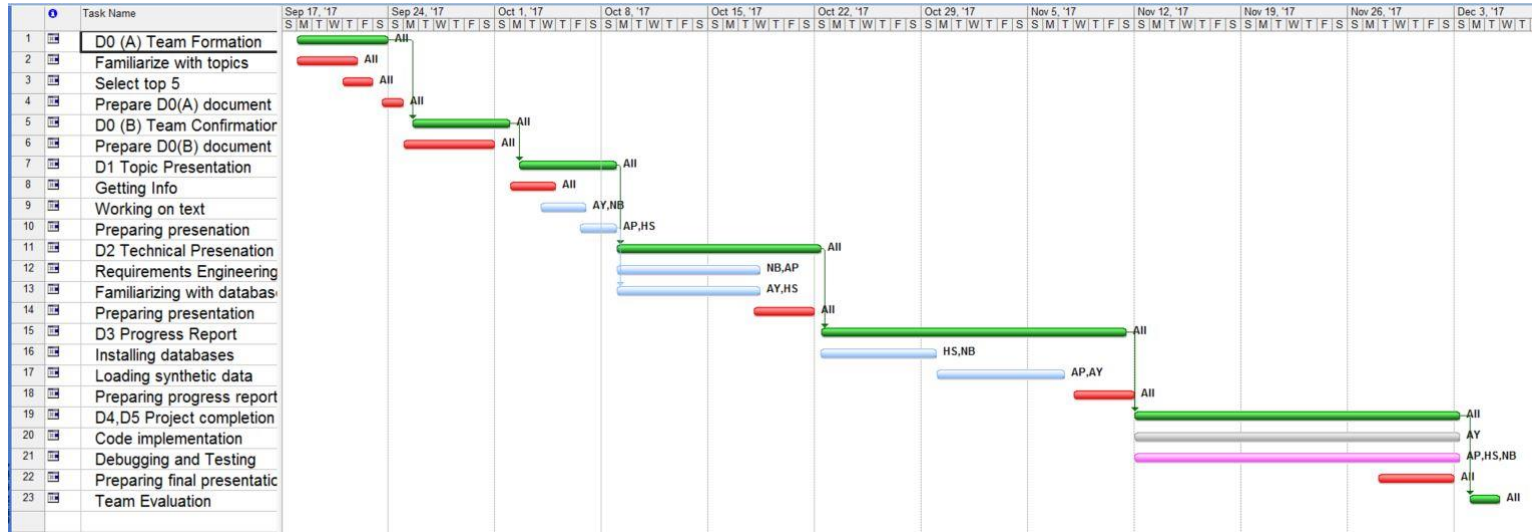
1. Finalizing the requirements – input / output details of the required web service
2. Familiarizing with dohMPI (PostgreSQL Database)
3. Familiarizing with EDEN (MySQL Database)
4. Populating dohMPI and EDEN synthetic test databases using DDL provided by the mentors
5. Selecting optimal technology for accessing the data
6. Selecting optimal technology for RESTful web service development
7. Implementing the code base for the solution
8. Testing the performance against the synthetic data.
9. Considering further implications, possible connections to FHIR technology.



4. GANTT Diagram



GANTT Diagram



THANKS!

