

Team VaxTrax


VaxTrax Application Presentation Handouts

Team VaxTrax PowerPoint Slides

Slide 1

TEAMVAXTRAX



Jeremy Wilson, Matthew Brinkmann, Dennis Dyer



Slide 2

COVID-19 BACKGROUND & CDC RESPONSE

- First known cases reported in Wuhan, China in late 2019
- CDC confirmed the first case in the US in January 2020 and activates its Emergency Response System
- January 2020, CDC begins screening passengers on returning flights from Wuhan
- February 2020, CDC develops testing kits for Covid-19
- In March 2020, President Trump declares a nationwide emergency, US states begin to shut down
- Most US states reported widespread cases by April 2020, CDC announces new mask and social distancing guidelines



Slide 3

VACCINE DEVELOPMENT

- March 2020, first human vaccine trial begins, conducted by Moderna
- April 2020, President Trump launches an initiative to produce a vaccine for Covid-19 as quickly as possible
- December 2020
 - FDA and Drug Administration issues Emergency Use Authorization for the first Covid-19 vaccine, made by Pfizer
 - First American outside of a clinical trial receives vaccine
 - FDA issues EUA for the second Covid-19 vaccine, made by Moderna
- February 2020, FDA issues EUA for Johnson & Johnson one-dose vaccine
- Mid-April 2020, all US adults become eligible to receive Covid-19 vaccines



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MEET TEAM VAXTRAX

Dennis Dyer

- Application Development Lead
- Handled writing code for the entire application
- Designed all User Interfaces in the application

Matthew Brinkman

- Database Design Lead
- Responsible for building and maintaining VaxTrax database and tables
- Moved and restored the database through several different iterations of hosting

Jeremy Wilson

- Documentation Lead
- In charge of documenting deliverables and the overall state of the application
- Documented current state of application, successes, and failures for every sprint report

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PROJECT OBJECTIVE & DELIVERABLES

Objective

- Develop an application to be used by the state of Missouri for recording and tracking vaccination records of residents

Deliverables in "User Story" Format

- Login Functionality
- Adverse Reaction Reporting
- Daily Vaccination Report Generation
- Ability to input new patient information
- Ability to retrieve existing patient information
- Vaccination Refusal Logging
- Vaccination Event and Dose Tracking

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SPRINT HISTORY

Sprint 1

- Conducted Project Scope Blitz
- Assembled List of Business Events to Use as Guideline of Project Deliverables
- Created Screen Mock-Ups for the User Interface of the Application
- Created an Early Draft of an ERD

Sprint 2

- Actual Development Begins
- Business Events Chosen to be Deliverables:
 - Vaccinator Logs into the System
 - Vaccinator reports adverse reactions to the CDC
- Login Functionality implemented successfully
- Adverse Reaction Reporting implemented successfully
- Vaccinator table created in Database

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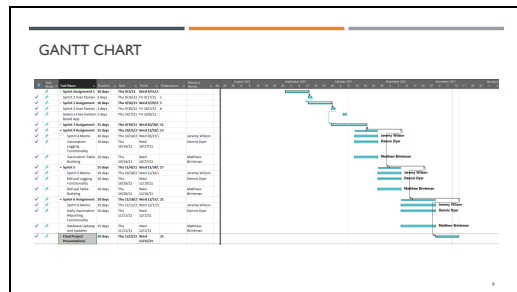
Slide 7

SPRINT HISTORY	
Sprint 3	Sprint 4
<ul style="list-style-type: none"> Business Events chosen to be Deliverables: <ul style="list-style-type: none"> Vaccinator retrieves patient information from the system Vaccinator inputs patient information Ability to input new patient information implemented successfully Ability to retrieve existing patient information implemented successfully Patient Table created in Database 	<ul style="list-style-type: none"> Business Events chosen to be Deliverables: <ul style="list-style-type: none"> Vaccinator asks pre-screening questions and inputs refusal information if needed Vaccinator inputs vaccine dose information Ability to log and store vaccine dose information implemented successfully Ability to input refusal information was not implemented successfully in this sprint Vaccine Table created in Database Insurance Table created in Database

Slide 8

SPRINT HISTORY	
Sprint 5	Sprint 6
<ul style="list-style-type: none"> Business Events chosen to be Deliverables: <ul style="list-style-type: none"> Vaccinator asks pre-screening questions and inputs refusal information if needed Ability to input refusal information implemented successfully Refusal Table created in Database 	<ul style="list-style-type: none"> Business Events chosen to be Deliverables: <ul style="list-style-type: none"> System sends vaccination events to CDC daily Ability to generate vaccination event reports that are ready to be sent to the CDC implemented successfully

Slide 9



Slide 10



Slide 11

EXPECTED BENEFITS

- Ease of logging vaccination events
- Reporting vaccination events to the CDC will be made easier by generated, ready-to-send reports
- Centralized database of resident vaccination status, easier for statistical tracking at the state level
- Runs on all recent Windows Operating Systems, which many healthcare providers already use throughout the state
- Can also be used on tablets that run Windows Operating Systems, which provides a level of portability and ease of use to healthcare providers

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COST-BENEFIT ANALYSIS

Costs & Benefits

- The costs for development were calculated at a rate of \$30 per billable hour for all three people on the development team
- Total Billable Hours: 132 hours at \$30/hour
- Total Cost of Development: \$3,960
- As of right now, there are no expected financial benefits, but the outlined benefits stated on the previous slide should be taken into consideration

Cost Chart

Cost of Development Over Time

Hours	Cost (\$)
0	\$0.00
132	\$3,960.00

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IN SUMMARY

- Team VaxTrac strongly believes that our VaxTrac application would be extremely helpful to the state of Missouri for recording and tracking vaccination events.
- The application would be available to all healthcare providers to implement as needed, but we assume that a state-sponsored application would be favored by many providers, and thus would be quickly implemented by a majority of them
- The application also provides a great starting place for future functionality to be built upon, such as implementing vaccine event logging for children, who are now approved to receive vaccinations. More information on this potential expansion can be found on the next slide.

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PROPOSED EXPANSION TO TRACK CHILD VACCINATIONS

Costs

- Continued rate of \$30/hour
- Expected development time of 60 hours to implement new functionalities
- 60 hours at \$30/hour = \$1800
- Previous Development Costs: \$3960
- Total Development Costs after Expansion: \$5760

Benefits

- No Financial Benefits
- Tracking Child Vaccination Status in Missouri
- Easy reporting for all age groups
- Centralized Database that records vaccination status for all age groups

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CLASS RESPONSIBILITY COLLABORATOR CARDS

Patient CRC Card (FRONT)

Patient CRC Card (FRONT)	
Responsibilities (Methods)	Collaborating Classes
AddPatient	Vaccine
GetPatient	Refusal
PatientExists	Insurance
UpdatePatientAddress	

Patient CRC Card (BACK)

Patient CRC Card (BACK)	
Attributes (Properties)	
patient_ID	
First_Name	
Middle_Name	
Last_Name	
Date_of_Birth	
Sex	
Street1	
Street2	
City	
County	
State	
Zipcode	
Homecity	
Work	

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[illegible]

Slide 17

The diagram illustrates the structure of a Refusal CRC Card, showing both the front and back sides. A horizontal line at the top separates the header from the main content area.

Refusal CRC Card (FRONT)

Refusal CRC Card (FRONT)	
Responsibilities (Methods)	Collaborating Classes
getTodayAndWeekends	User
todayRefusalReasons	

Refusal CRC Card (BACK)

Refusal CRC Card (BACK)
Attributes (Properties)
version: 0.0
RefusalReason
date
User ID

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The diagram illustrates the structure of a User CRC Card. It consists of two parts: the front and the back.

User CRC Card (FRONT)

User CRC Card (FRONT)	
Responsibilities (Methods)	Collaborating Classes
Fields	Message
Attributes	Refined

User CRC Card (BACK)

User CRC Card (BACK)
Attributes (Properties)
Name, ID
User Name
Password

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CLASS RESPONSIBILITY COLLABORATOR CARDS

Insurance CRC Card (FRONT)

Insurance CRC Card (FRONT)	
Responsibilities (Methods)	Collaborating Classes
getInsurance	Person
insuranceExists	
setInsurance	
updateInsurance	

Insurance CRC Card (BACK)

Insurance CRC Card (BACK)	
Attributes (Properties)	
insurance_ID	
insurance	
primary_holder	
expiry_date	

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THANK YOU FOR LISTENING

Questions?



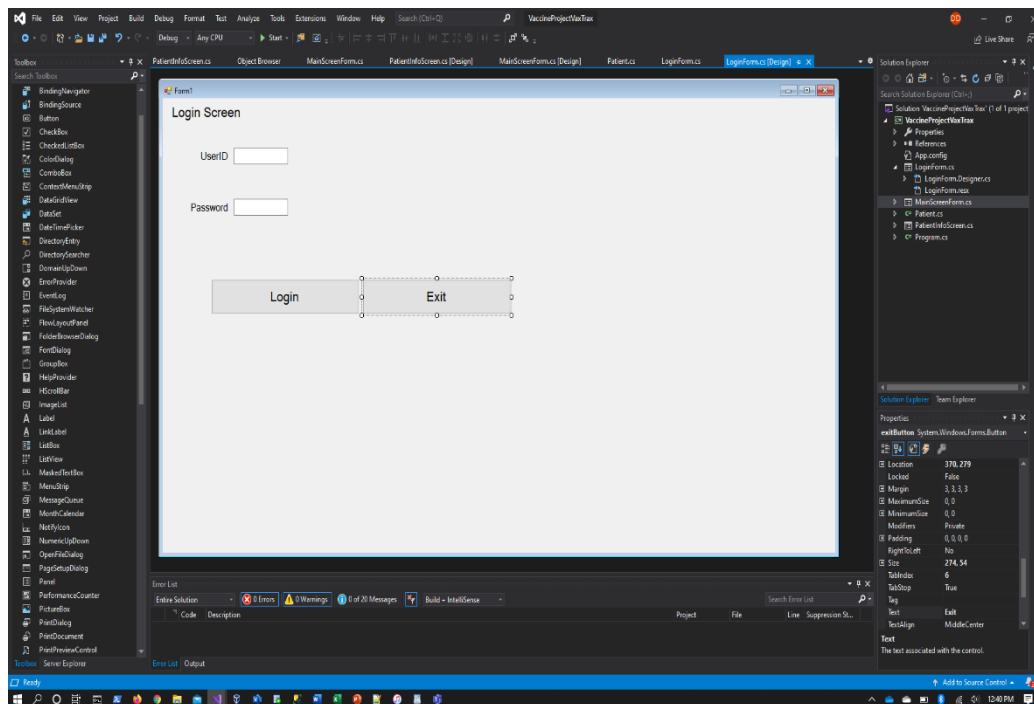
20

Accomplishments for Each Sprint

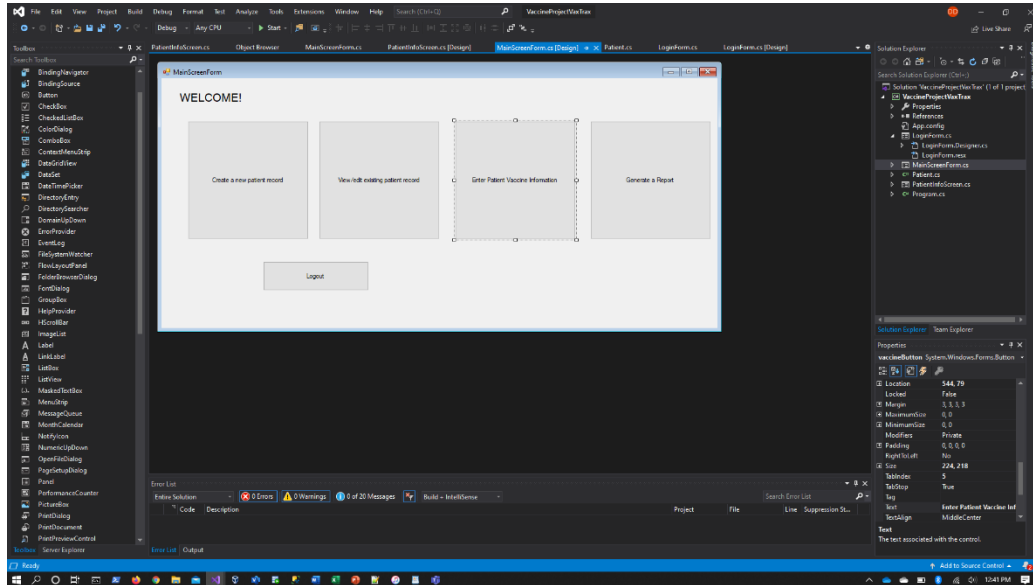
Sprint 1

- Conducted Project Scope Blitz
- Created Screen Mock-Ups
- Created Sample ERD

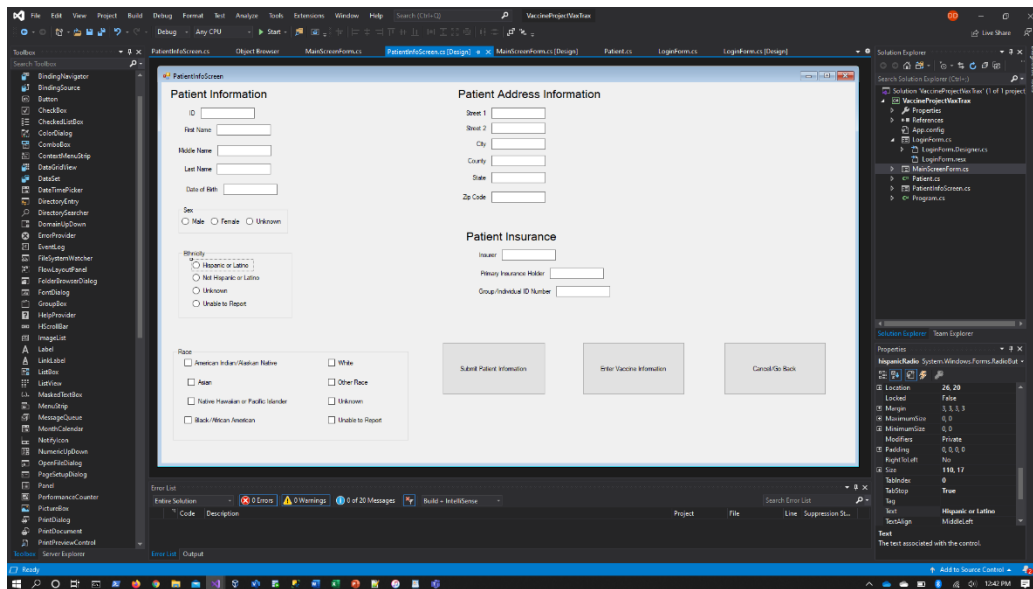
Login Page



Main Menu



Patient Information Screen



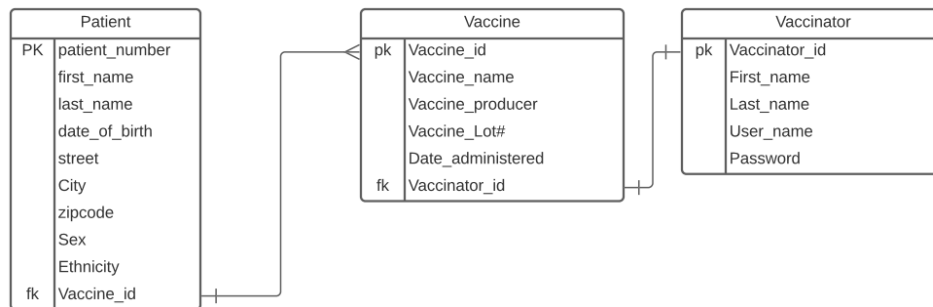
Patient Table

Column Name	Data Type	Allow Nulls
patient_ID	int	<input type="checkbox"/>
First_Name	varchar(50)	<input type="checkbox"/>
Middle_Name	varchar(50)	<input checked="" type="checkbox"/>
Last_Name	varchar(50)	<input type="checkbox"/>
Date_of_Birth	date	<input type="checkbox"/>
Street	varchar(50)	<input type="checkbox"/>
City	varchar(50)	<input type="checkbox"/>
County	varchar(50)	<input type="checkbox"/>
Zipcode	varchar(50)	<input type="checkbox"/>
Sex	varchar(1)	<input checked="" type="checkbox"/>
Ethnicity	varchar(1)	<input type="checkbox"/>
vaccine_id	varchar(10)	<input checked="" type="checkbox"/>

Column Properties	
(General)	
(Name)	patient_ID
Allow Nulls	No
Data Type	int
Default Value or Binding	
Table Designer	
(General)	

Properties	
[Tbl] dbo.Patient	
(Name)	Patient
Database Name	is253_brinkmann
Description	
Schema	dbo
Server Name	mc-sluggo
Table Designer	
Identity Color	
Indexable	Yes
Lock Escalation	Table
Regular Data: PRIMARY	
Replicated	No
Row GUID Co	
Text/Image Fi	PRIMARY
(Identity)	

ERD



Sprint 2

- Business Events chosen to be completed:
 - As a Vaccinator, I want to log in to the system, so that I can access patient information and input vaccine information
 - As a Vaccinator, I want to report adverse reactions, so that the CDC can monitor vaccine safety
- Additional Screen Mock-Ups
- Vaccine Table created in Database
- Object-Relationship Diagrams
- Business Process Diagrams

Screen Mock-ups created by Dennis Dyer

Login Screen

Login Screen

Welcome to the VaxTrax Immunization Information System!

UserID

Password

Login Exit

Windows taskbar: 4:28 PM

Main Screen

MainForm

Look Up Patient Information First Name: Middle Name: Last Name:

denny Logged In

Patient Information	Patient Address	Vaccine Information
First Name <input type="text"/>	Street 1 <input type="text"/>	Type <input type="text"/> Product <input type="text"/>
Middle Name <input type="text"/>	Street 2 <input type="text"/>	Lot Number <input type="text"/>
Last Name <input type="text"/>	City <input type="text"/>	Manufacturer <input type="text"/>
Date of Birth <input type="text"/>	County <input type="text"/>	Date Administered <input type="text"/> Expiration Date <input type="text"/>
Sex <input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Unknown	State <input type="text"/>	# Wasted <input type="text"/> Dose Number <input type="text"/>
Ethnicity <input type="checkbox"/> Hispanic or Latino <input type="checkbox"/> Not Hispanic or Latino <input type="checkbox"/> Unknown <input type="checkbox"/> Unable to report	Zip Code <input type="text"/>	Vaccinator <input type="text"/>
Race <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Asian <input type="checkbox"/> Native Hawaiian or Pacific Islander <input type="checkbox"/> Black/African American <input type="checkbox"/> White <input type="checkbox"/> Other Race <input type="checkbox"/> Unknown <input type="checkbox"/> Unable to report	Patient Insurance Insurer <input type="text"/> Primary Insurance Holder <input type="text"/> Group/Individual ID Number <input type="text"/>	Missed Appointment <input type="radio"/> Yes <input type="radio"/> No Comorbidity <input type="radio"/> Yes <input type="radio"/> No Refused Vaccination <input type="radio"/> Yes <input type="radio"/> No If Yes, Provide Reason <input type="text"/>
	Vaccine Administration Site <input type="radio"/> LA (left arm) <input type="radio"/> RA (right arm) <input type="radio"/> LE (lower extremity) Left <input type="radio"/> LE (lower extremity) Right Administration Route C28161 (intramuscular)	Received EUA Fact Sheet for Recipients <input type="radio"/> Yes <input type="radio"/> No

Add New Patient Record Update Patient Record Report Adverse Reaction to VAERS Exit

Windows taskbar: 4:28 PM

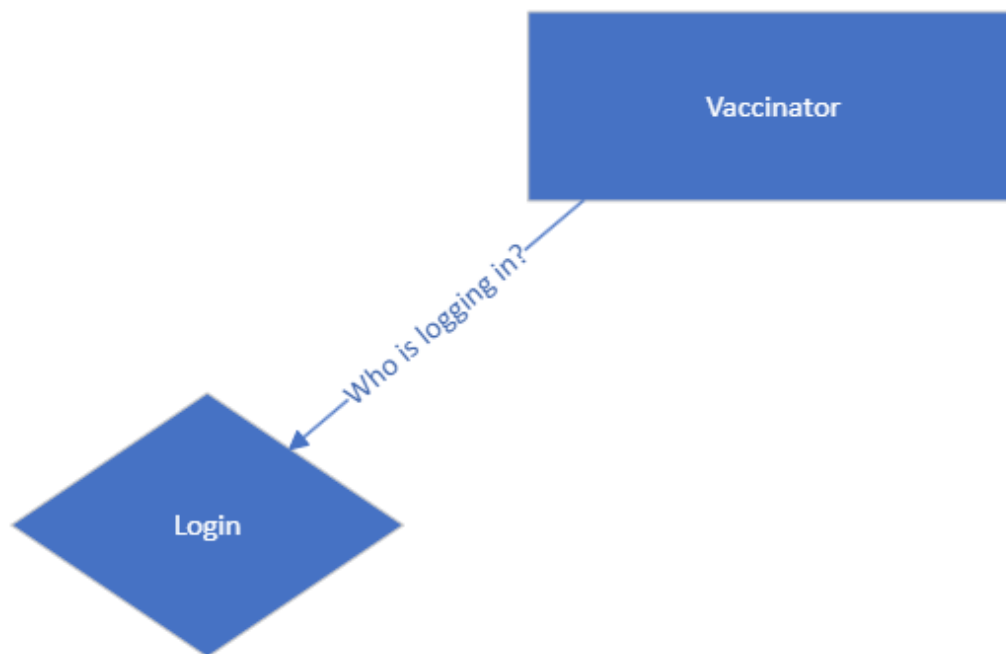
Table made by Matthew Brinkman

MC-SLUGGO.is253_b...- dbo.Vaccinator			
	Vaccinator_id	UserName	Password
	1	Test1	Test1
▶*	NULL	NULL	NULL

Object-Relationship Diagram:

Note: There is no O-R Diagram for the business event "Vaccinator reports adverse reactions to the CDC" because that event will be handled externally and therefore we will not be handling data for it.

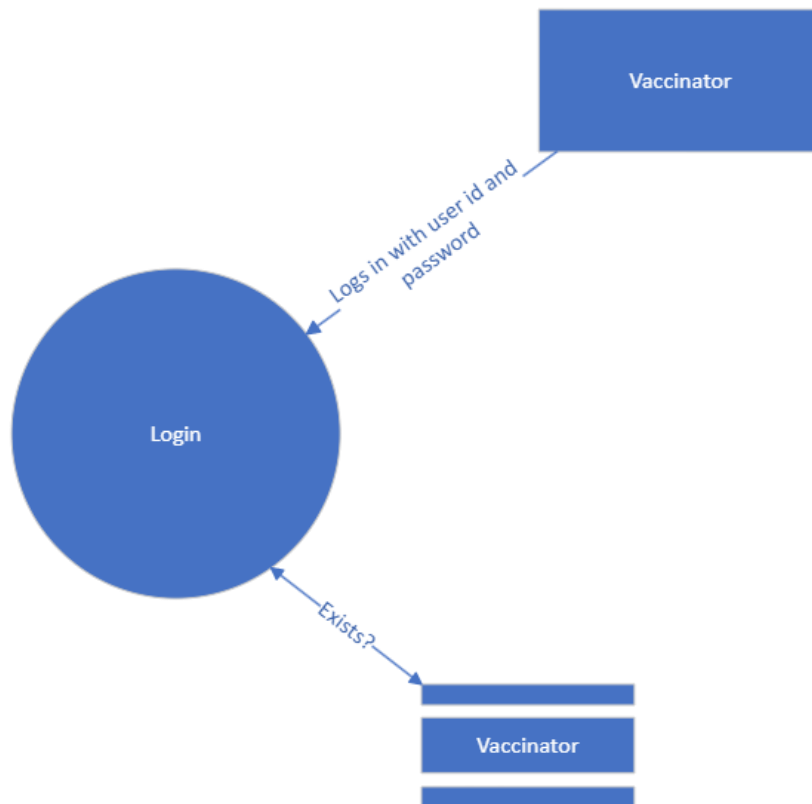
User Story "As a Vaccinator, I want to log in to the system, so that I can access patient information and input vaccine information."



Business Process Diagram:

Note: There is no Business Process Diagram for the business event “Vaccinator reports adverse reactions to the CDC” because that event will be handled externally and therefore we will not be handling data for it.

User Story “As a Vaccinator, I want to log in to the system, so that I can access patient information and input vaccine information.”

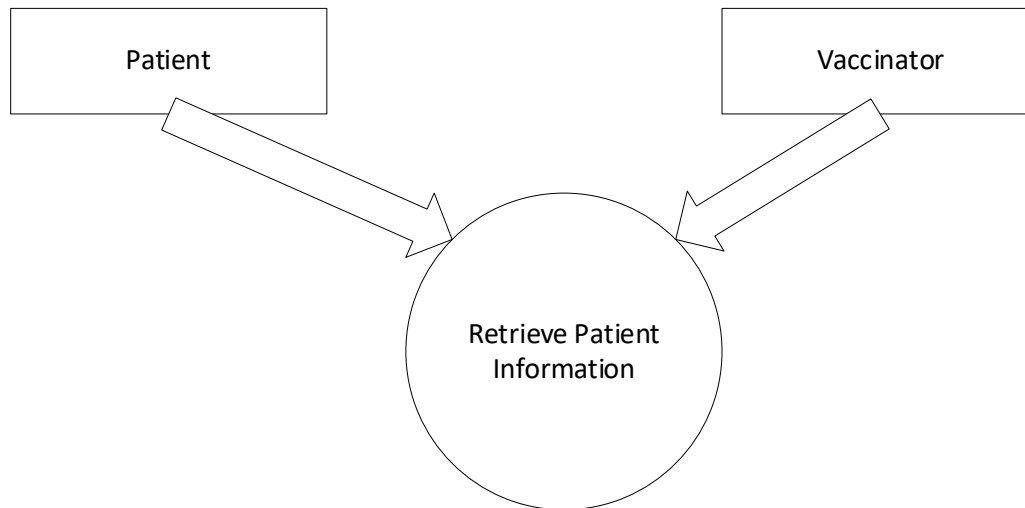


Sprint 3

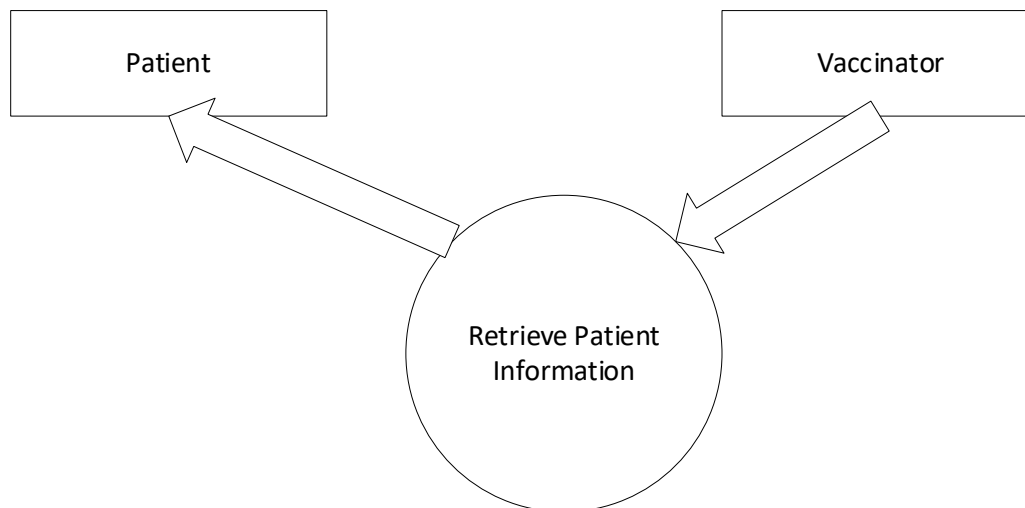
- Business Events chosen to be completed:
 - As a Vaccinator, I want to retrieve patient information, so that I can know that patients are eligible and give the correct vaccines.
 - As a Vaccinator, I want to input patient information, so that their information is accurate and up to date.
- Patient Table created in Database
- Object-Relationship Diagrams
- Business Process Diagrams

Object-Relationship Diagrams:

User Story “As a Vaccinator, I want to retrieve patient information, so that I can know that patients are eligible and give the correct vaccines.”

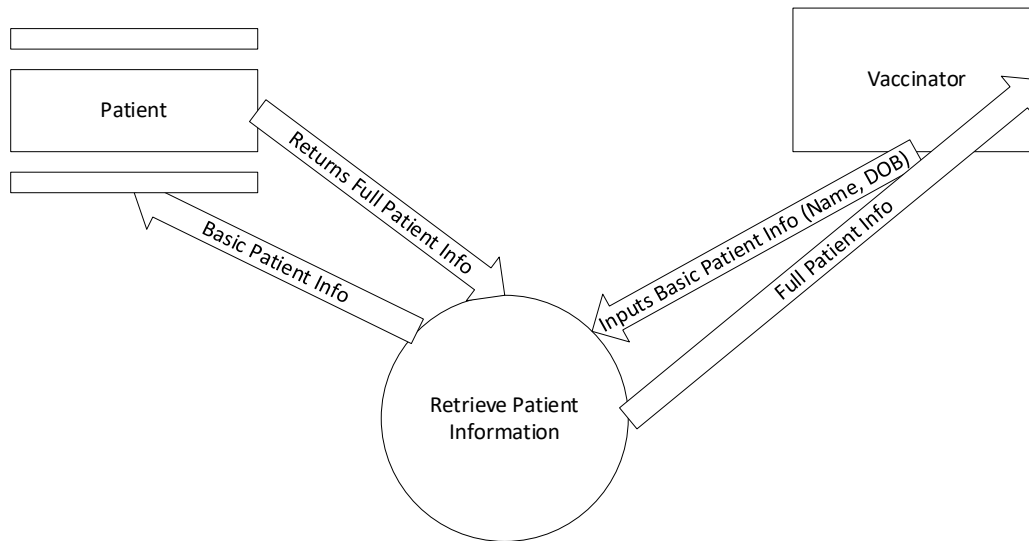


User Story “As a Vaccinator, I want to input patient information so that their information is accurate and up to date.”

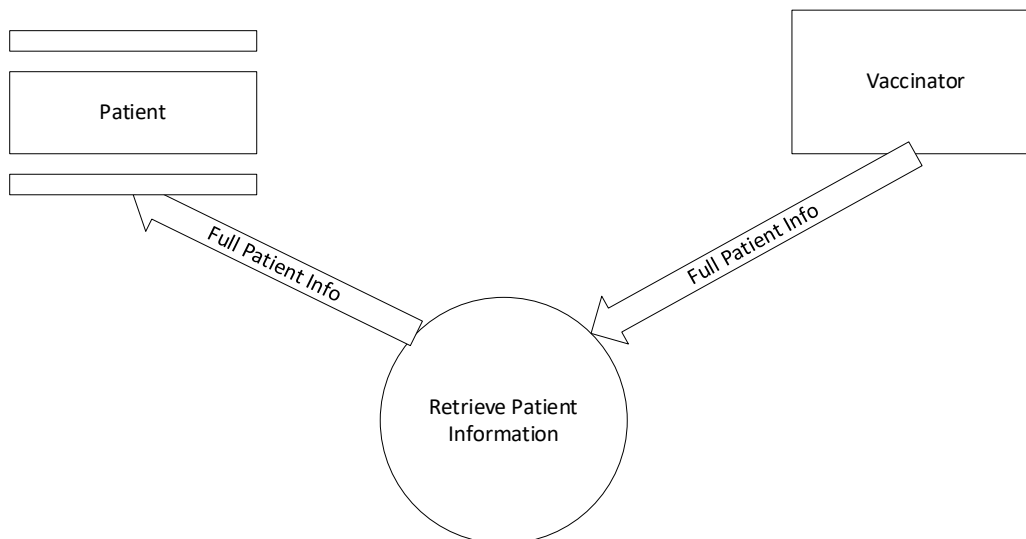


Business Process Diagrams:

User Story “As a Vaccinator, I want to retrieve patient information, so that I can know that patients are eligible and give the correct vaccines.”



User Story “As a Vaccinator, I want to input patient information so that their information is accurate and up to date.”

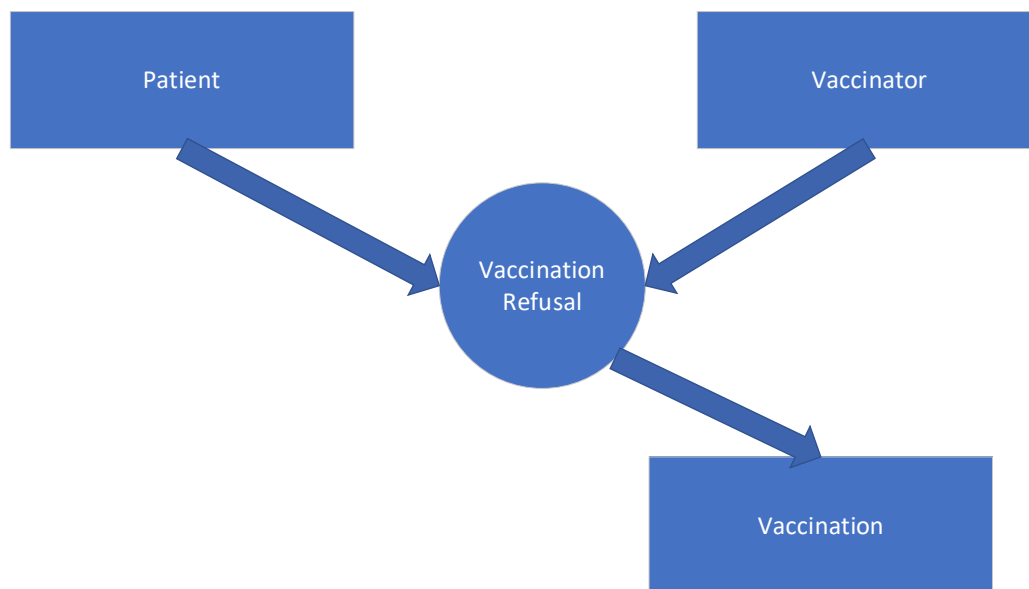


Sprint 4

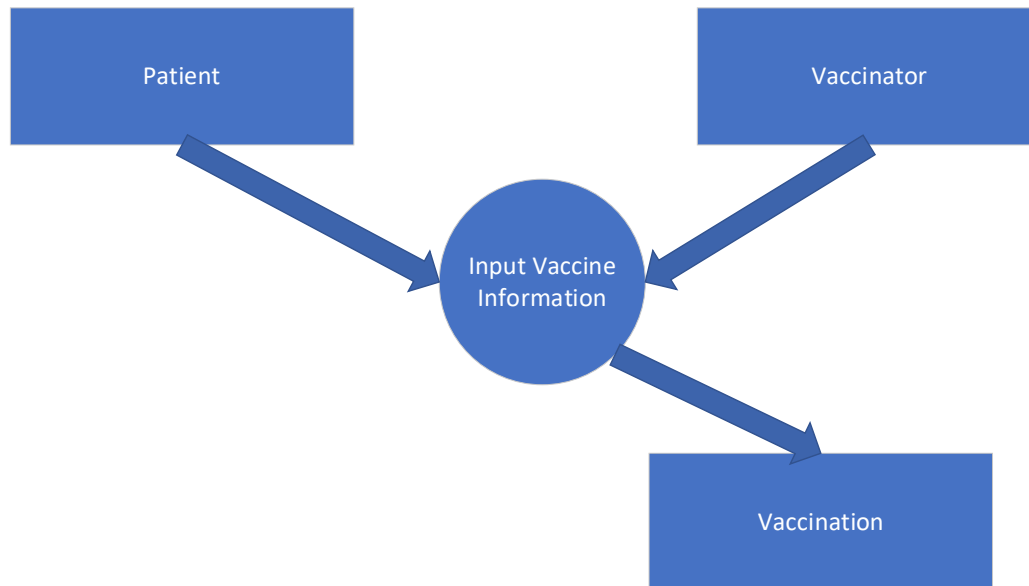
- Business Events chosen to be completed:
 - As a Vaccinator, I want to ask pre-screening questions, so that I can refuse vaccination if there is a health risk and report the reason to the CDC. (Not Delivered)
 - As a Vaccinator, I want to input vaccine information, so that I can know the patient's vaccine history and track which doses they have received.
- Vaccine Table created in Database
- Insurance Table created in Database
- Object-Relationship Diagrams
- Business Process Diagrams

Object-Relationship Diagrams:

User Story "As a Vaccinator, I want to ask pre-screening questions, so that I can refuse vaccination if there is a health risk and report the reason to the CDC."

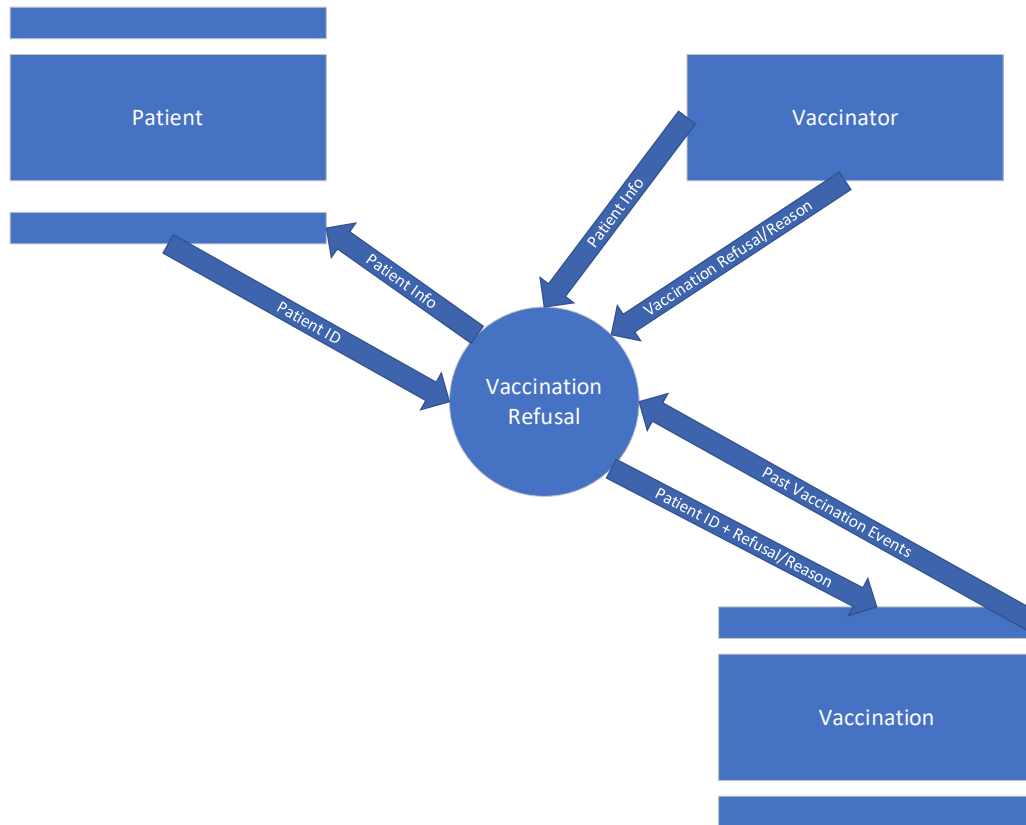


User Story “As a Vaccinator, I want to input vaccine information, so that I can know the patient’s vaccine history and track which doses they have received.”

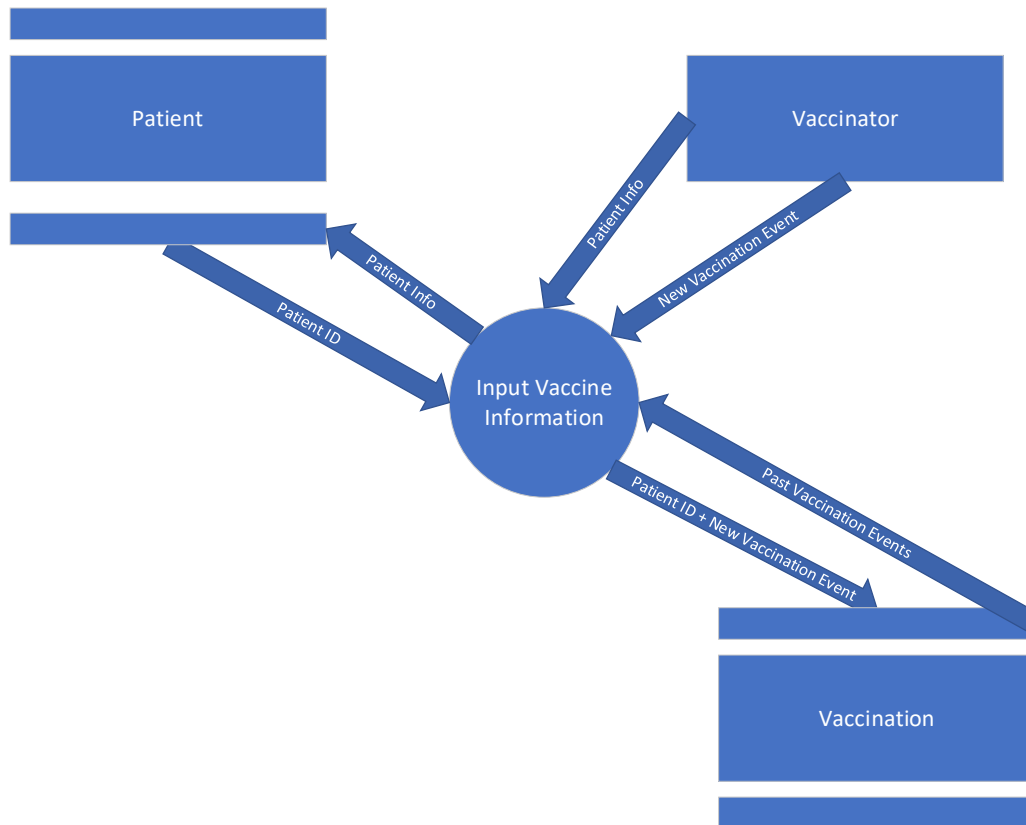


Business Process Diagrams:

User Story “As a Vaccinator, I want to ask pre-screening questions, so that I can refuse vaccination if there is a health risk and report the reason to the CDC.”



User Story “As a Vaccinator, I want to input vaccine information, so that I can know the patient’s vaccine history and track which doses they have received.

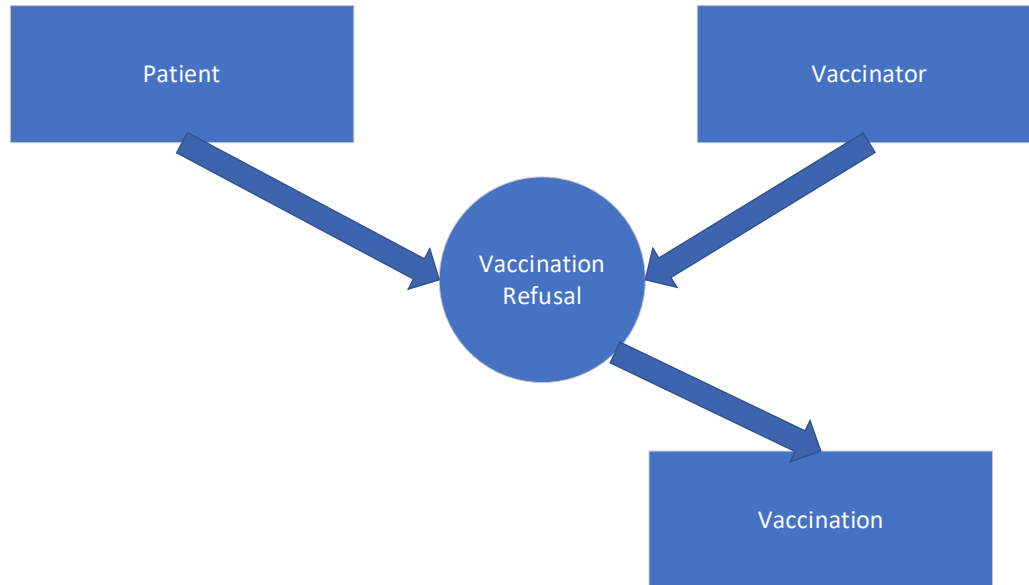


Sprint 5

- Business Events chosen to be completed:
 - As a Vaccinator, I want to ask pre-screening questions, so that I can refuse vaccination if there is a health risk and report the reason to the CDC.
- Refusal Table created in Database
- Object-Relationship Diagrams
- Business Process Diagrams

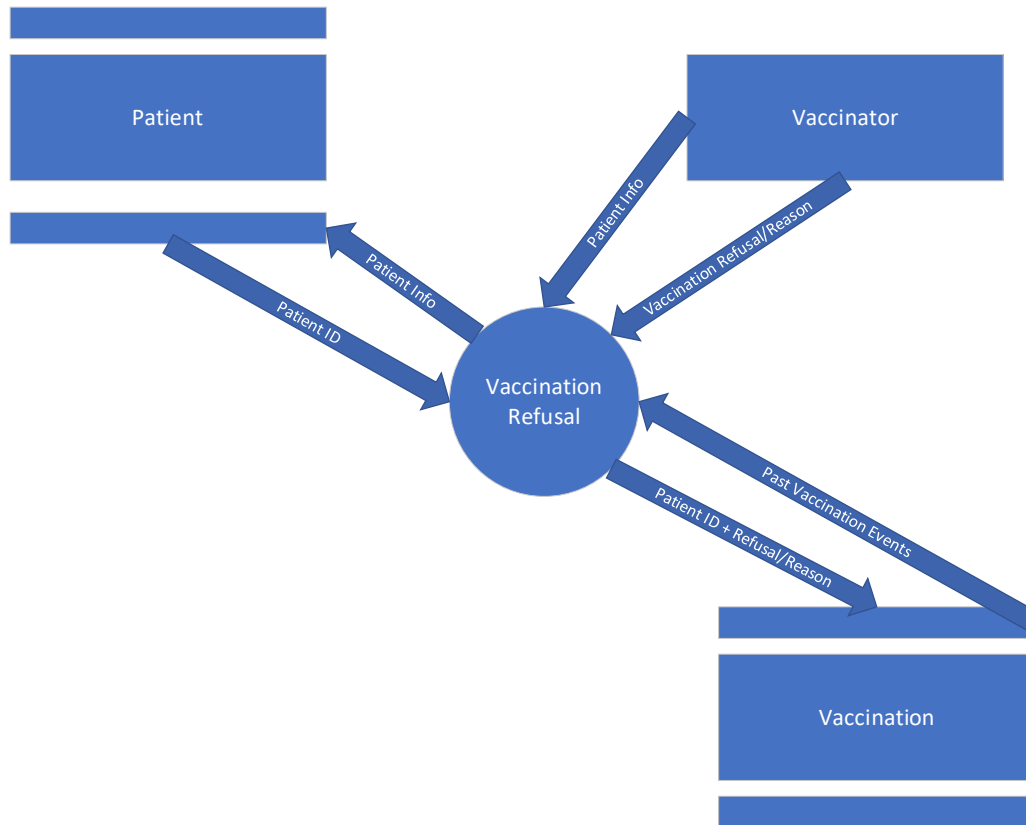
Object-Relationship Diagrams:

User Story “As a Vaccinator, I want to ask pre-screening questions, so that I can refuse vaccination if there is a health risk and report the reason to the CDC.”



Business Process Diagrams:

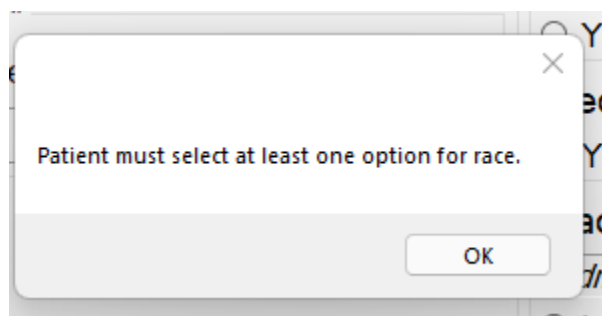
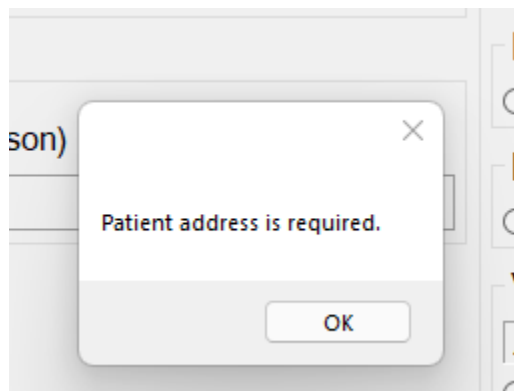
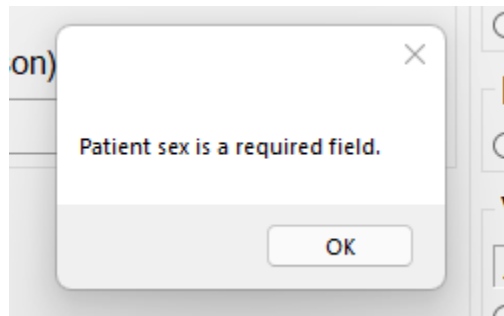
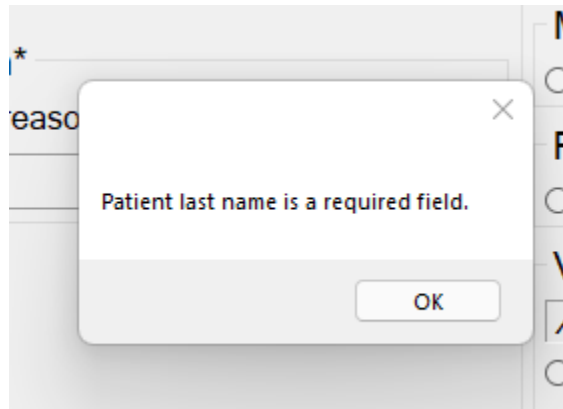
User Story “As a Vaccinator, I want to ask pre-screening questions, so that I can refuse vaccination if there is a health risk and report the reason to the CDC.”

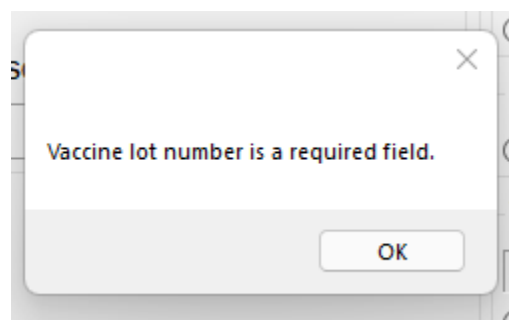
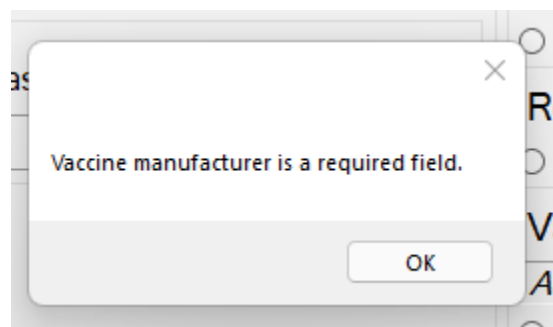
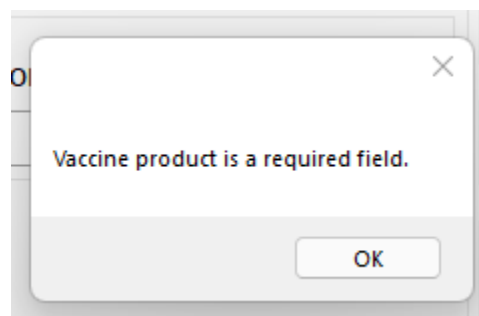
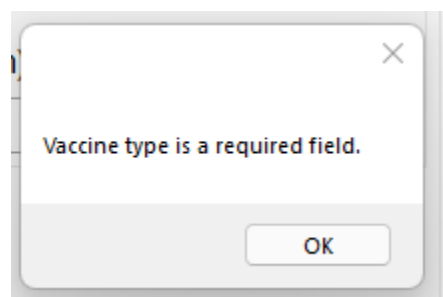
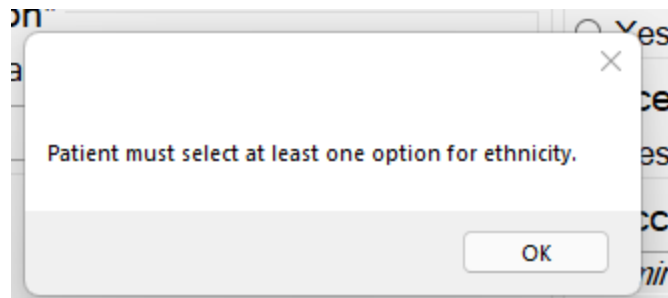


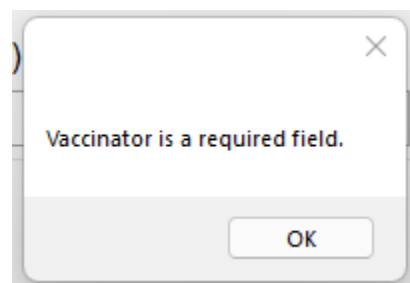
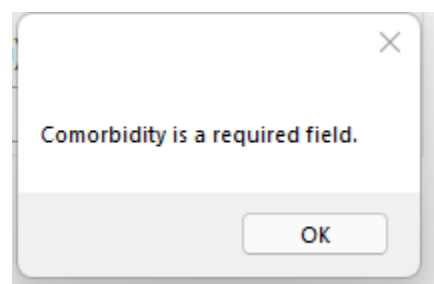
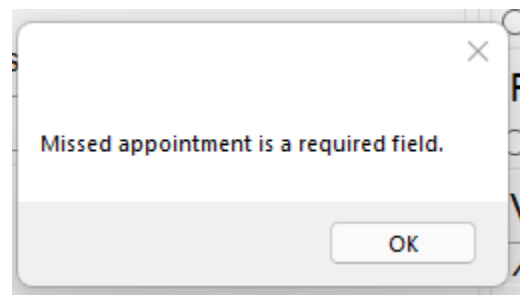
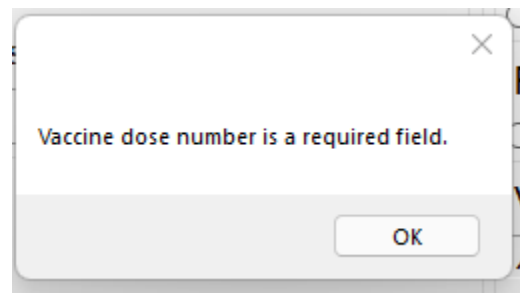
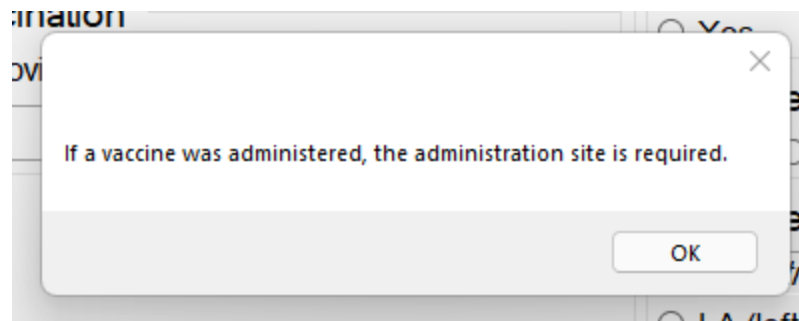
Sprint 6

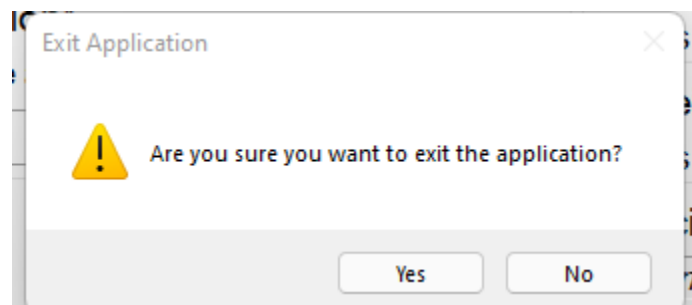
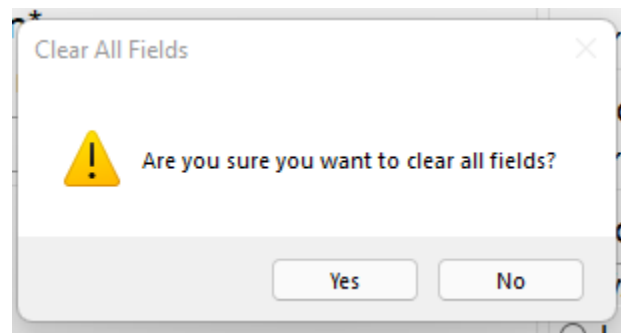
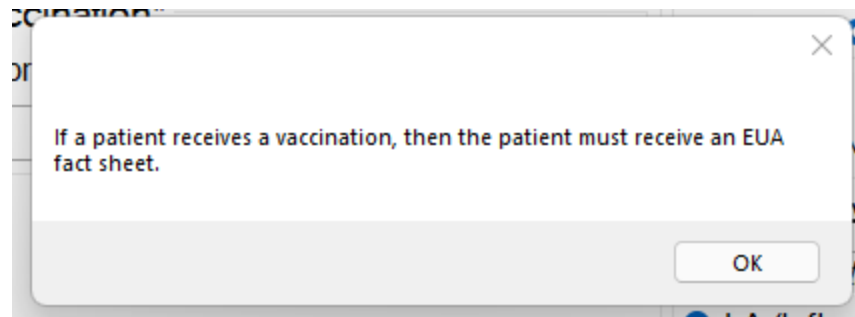
- Business Events chosen to be completed:
 - As an administrator, I want to report vaccination events to the CDC daily, so that I can meet the requirements of vaccine reporting.
- Input Validation and Error Message Screenshots
- Final ERD
- Object-Relationship Diagrams
- Business Process Diagrams

Input Validation and resulting Error Message Screenshots:

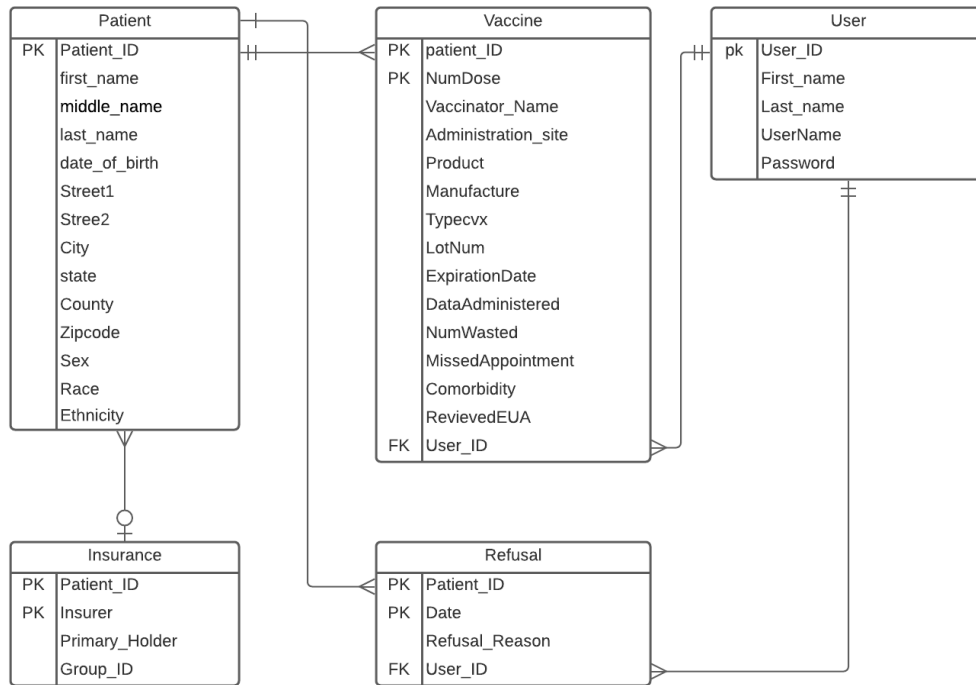






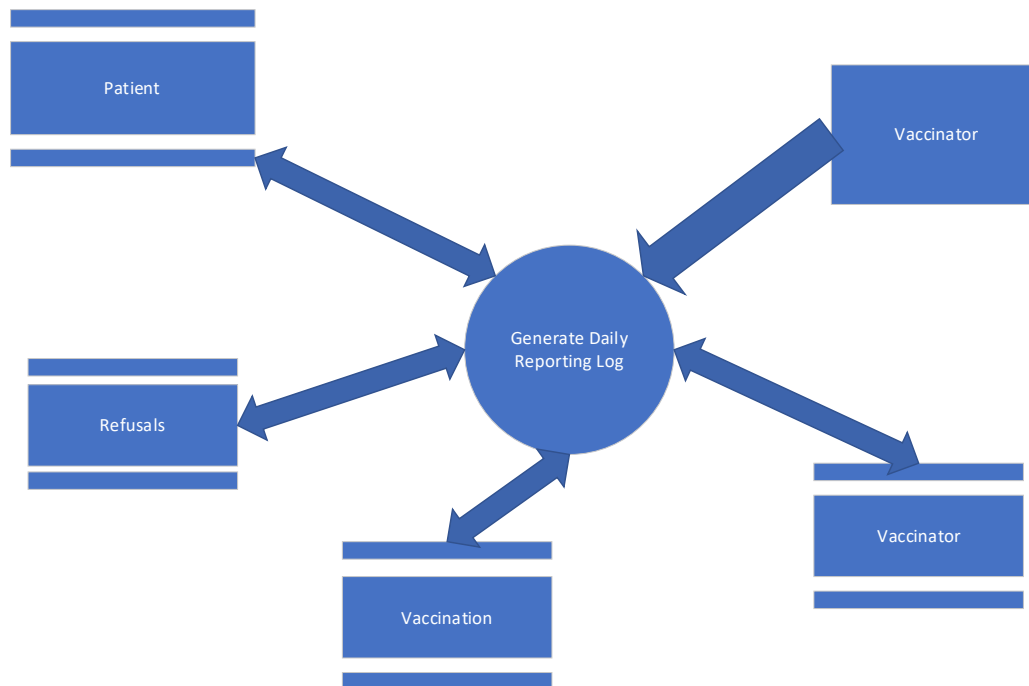


Entity-Relationship Diagram:



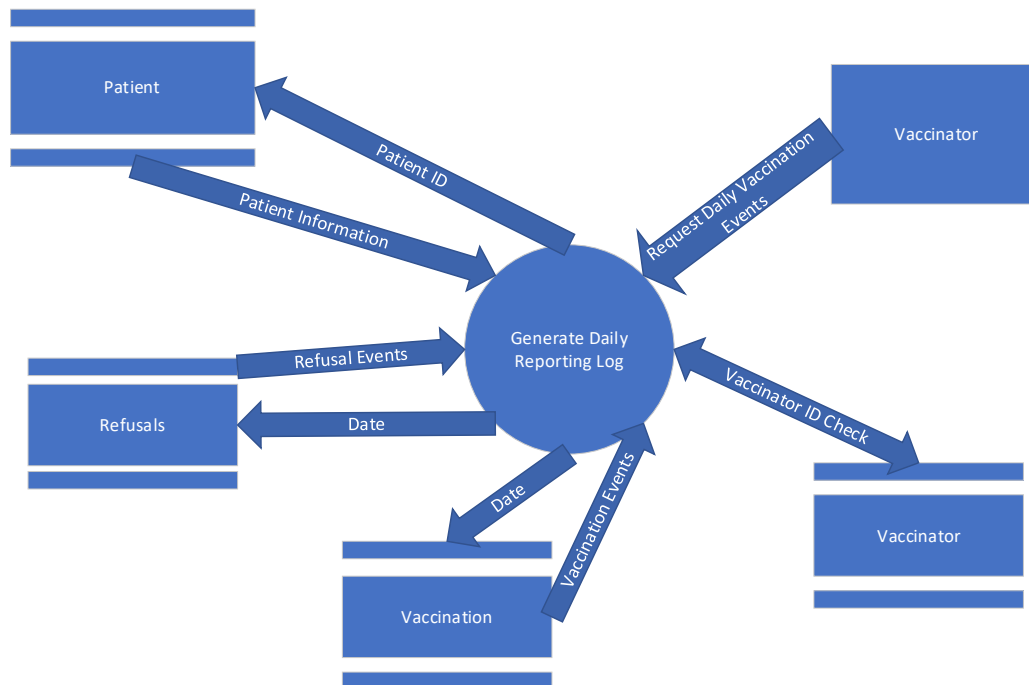
Object-Relationship Diagrams:

User Story “As an administrator, I want to report vaccination events to the CDC daily, so that I can meet the requirements of vaccine reporting.”

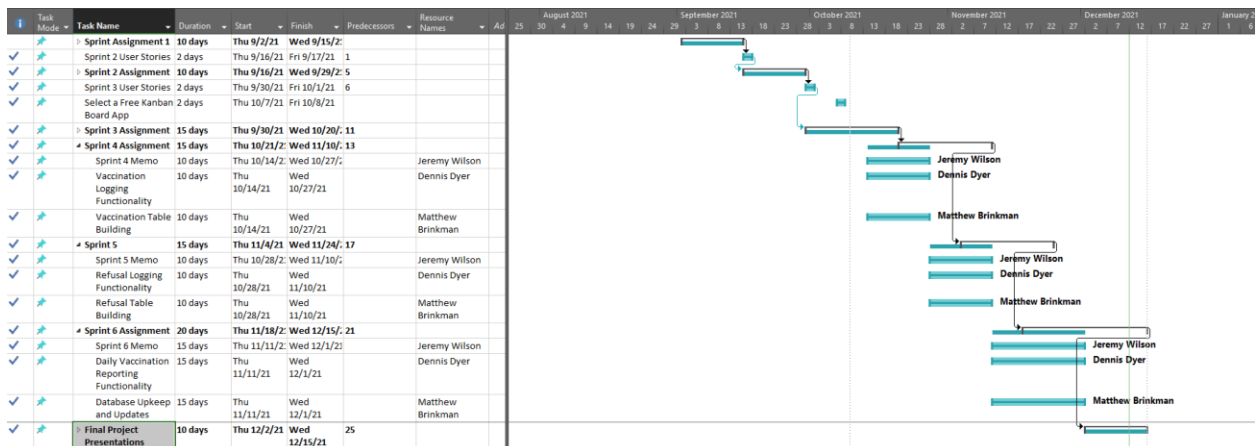


Business Process Diagrams:

User Story “As an administrator, I want to report vaccination events to the CDC daily, so that I can meet the requirements of vaccine reporting.”



Gantt Chart



End User Navigation

- Login

The screenshot shows a window titled "Login Screen" with standard Windows window controls (minimize, maximize, close) in the top right corner. The main content area has a light gray background and contains the following elements:

- A welcome message: "Welcome to the VaxTrax Immunization Information System!"
- Two text input fields: "UserID" and "Password".
- Two buttons at the bottom: "Login" (highlighted with a blue border) and "Exit".

- Enter Patient Information

All Fields Marked With An Asterisk(*) Are Required Fields

Patient Information	Patient Address
First Name*	Street 1*
Middle Name	Street 2
Last Name*	City*
Date of Birth* 1/ 1/2003	County*
Sex*	State* MO
<input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Unknown	Zip Code*
Ethnicity*	Refused Vaccination*
<input type="checkbox"/> Hispanic or Latino	<input type="radio"/> Yes (If yes, provide a reason) <input type="radio"/> No
<input type="checkbox"/> Not Hispanic or Latino	
<input type="checkbox"/> Unknown	
<input type="checkbox"/> Unable to report	
Race*	Patient Insurance
<input type="checkbox"/> American Indian/Alaskan Native	Insurer
<input type="checkbox"/> Asian	Primary Insurance Holder
<input type="checkbox"/> Native Hawaiian or Pacific Islander	Group/Individual ID Number
<input type="checkbox"/> Black/African American	
<input type="checkbox"/> White	
<input type="checkbox"/> Other Race	
<input type="checkbox"/> Unknown	
<input type="checkbox"/> Unable to report	

- Enter Vaccine Information

Vaccine Information	
Type (CVX)*	Manufacturer (MVX)*
Lot Number*	
Product*	
Date Administered*	Expiration Date*
# Wasted*	Dose Number*
Vaccinator*	
Missed Appointment*	Comorbidity*
<input type="radio"/> Yes <input type="radio"/> No	<input type="radio"/> Yes <input type="radio"/> No
Received EUA Fact Sheet for Recipients*	
<input type="radio"/> Yes <input type="radio"/> No	
Vaccine Administration Site*	
<i>Administration Route: C28161 (Intramuscular)</i>	
<input type="radio"/> LA (left arm) <input type="radio"/> RA (right arm)	
<input type="radio"/> LE (lower extremity) Left <input type="radio"/> LE (lower extremity) Right	
Patient Vaccinations	

- Submit Form

Middle Name
 Last Name*
 Date of Birth* 1/ 1/2003
 Sex*
☐ Male ☐ Female ☐ Unknown
 Ethnicity*
☐ Hispanic or Latino
☐ Not Hispanic or Latino
☐ Unknown
☐ Unable to report
 Race*
☐ American Indian/Alaskan Native
☐ Asian
☐ Native Hawaiian or Pacific Islander
☐ Black/African American
☐ White
☐ Other Race
☐ Unknown
☐ Unable to report
 Street 2
 City*
 County*
 State* MO
 Zip Code*
 Lot Number*
 Product*
 Date Administered* 12/12/2021
 # Wasted*
 Vaccinator*
 Missed Appointment*
☐ Yes ☐ No
 Received EUA Fact Sheet for
☐ Yes ☐ No
 Vaccine Administration Site*
 Administration Route: C28161 (Intra
☐ LA (left arm) ☐ RA (right arm)
☐ LE (lower extremity) Left ☐ LE (lower extremity) Right
 Patient Insurance
 Insurer
 Primary Insurance Holder
 Group/Individual ID Number
 Refused Vaccination*
☐ Yes (If yes, provide a reason) ☐ No

 Save Patient/Vaccine Information
 Create/Export Daily Vaccination CSV File
 Create/Export Daily Refusal CSV File
 Clear All Fields
 Exit Application

- Retrieve Patient/Vaccine Information

Search For Patient First Name: Last Name: Date of Birth: 1/ 1/2016
 All Fields Marked With An Asterisk(*) Are Required Fields
 Patient Information
 First Name*
 Patient Address
 Street 1*
 Vaccine Information
 Type (CVX)*

- Generate Daily Vaccination Event Reports

Primary Insurance Holder
 Group/Individual ID Number
 Create/Export Daily Vaccination CSV File
 Create/Export Daily Refusal CSV File
 Clear All Fields
 Exit Application

Cost Estimates:

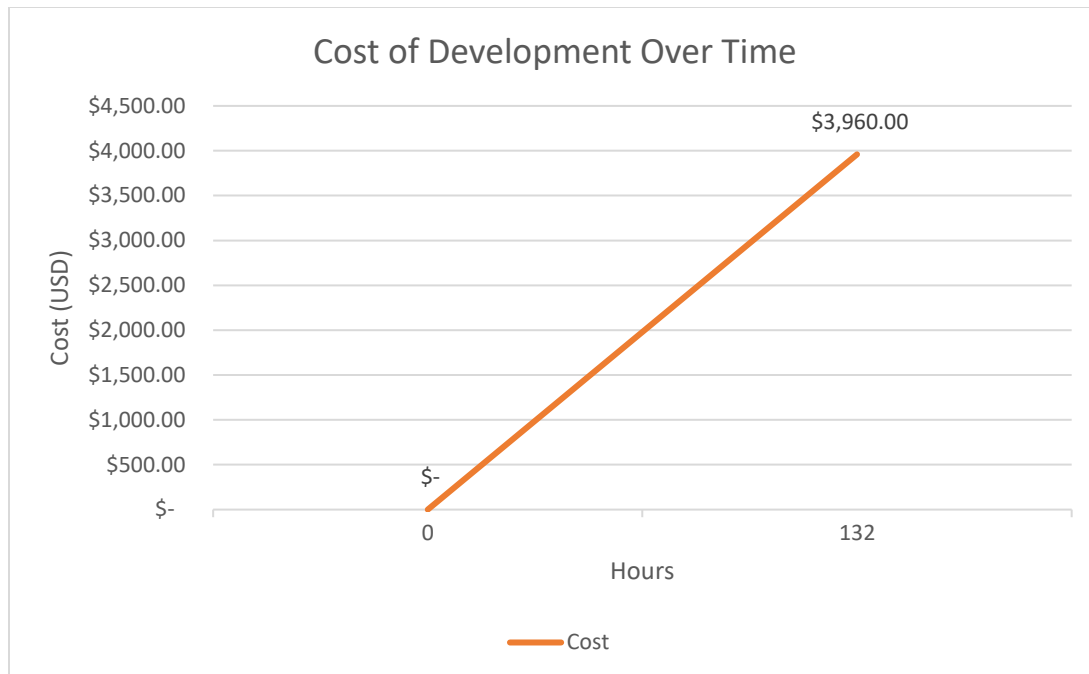
Estimated costs for developing and delivering this project are below. Costs have been calculated at the estimated expense of \$30 per billable hour for each employee.

Total Number of Development Hours: 132 hours at \$30/hour

Total Development Cost: \$3,960

Cost-Benefit Analysis:

As of right now, there are no projected benefits. It is our understanding that the state of Missouri will be providing this software as a public service that healthcare providers can request access to as needed, to help implement easier and more accurate vaccination tracking for reporting to the CDC. Because of this, there is no expected financial benefits, and therefore an expected zero percent return on investment. There may be financial benefits in the way of taxes on goods purchased while waiting for the observation period after receiving a vaccination to pass, as well as money saved on medical costs for patients who may need medical attention and are uninsured. While this may be a significant amount of money, it is purely hypothetical and thus will be incredibly hard to quantify, so for the sake of this analysis it will not be included officially. Aside from financial benefits, there are expected benefits such as ease of reporting for vaccination events, and also a centralized database that records vaccination events for Missouri residents. This leaves the state of Missouri with a cost of \$3,960 as shown in the chart below.



In Summary

Team VaxTrax strongly believes that our VaxTrax application would be extremely helpful to the state of Missouri for recording and storing vaccination events

The application would be available to all healthcare providers to implement as needed, but we assume that a state-sponsored application would be favored by many providers, and thus would be quickly implemented by a majority of them

The application also provides a great starting place for future functionality to be built upon, such as implementing vaccine event logging for children, who are now approved to receive vaccinations. More information on this potential expansion can be found on the next slide.

Propose Expansion to Track Child Vaccinations

Costs:

- Continued rate of \$30/hour
- Expected development time of 60 hours to implement new functionalities

- 60 hours at \$30/hour = \$1800
- Previous Development Costs: \$3960
- Total Development Costs after Expansion: \$5760

Benefits

- No Financial Benefits
- Tracking Child Vaccination Status in Missouri
- Easy reporting for all age groups
- Centralized Database that records vaccination status for all age groups

Class Relationship Collaborator Cards

Patient CRC Card (FRONT)	
Responsibilities (Methods)	Collaborating Classes
AddPatient GetPatient PatientExists UpdatePatientAddress	Vaccine Refusal Insurance

Patient CRC Card (BACK)
Attributes (Properties)
patient_ID First_Name Middle_Name Last_Name Date_of_Birth Sex Street1 Street2 City County State

Zipcode
Ethnicity
Race

Vaccine CRC Card (FRONT)	
Responsibilities (Methods)	Collaborating Classes
AddVaccine VaccineExists GetVaccines GetTodaysVaccines DailyVaccineExists	Patient User

Vaccine CRC Card (BACK)
Attributes (Properties)
patient_ID NumDose Vaccinator_Name Administration_site Product Manufacture Typecvx LotNum ExpirationDate DateAdministered NumWasted MissedAppointment Comorbidity RevievedEUA User_ID

Refusal CRC Card (FRONT)	
Responsibilities (Methods)	Collaborating Classes
AddRefusal GetTodaysRefusals	Patient User

DailyRefusalExists	
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Refusal CRC Card (BACK)
Attributes (Properties)
patient_ID Refusal_Reason Date User_ID

User CRC Card (FRONT)	
Responsibilities (Methods)	Collaborating Classes
IsValid	Vaccine
GetUserID	Refusal

User CRC Card (BACK)
Attributes (Properties)
User_ID UserName Password

Insurance CRC Card (FRONT)	
Responsibilities (Methods)	Collaborating Classes
AddInsurance InsuranceExists GetInsurance UpdateInsurance	Patient

Insurance CRC Card (BACK)
Attributes (Properties)
patient_ID

Insurer

Primary_Holder

Group_ID