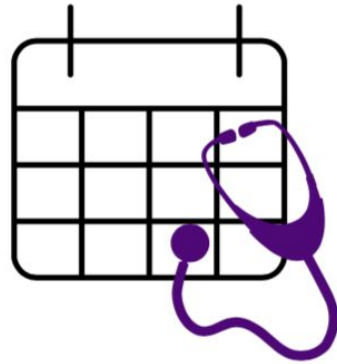


School of Medicine Volunteer Scheduler



WHO ARE WE ?

**Maria
Amoros**



Team Lead

**Riley
Durbin**



**Technical
Lead**

**Jeshua
Suarez-Lugo**



**Full-Stack
Developer &
Website
Manager**

Lydia Pape



**Full-Stack
Developer**

**Peyton
Freeman**



**Full-Stack
Developer**

**Emerson
Wolf**



**Full-Stack
Developer**

WHY?

Dr. Ric Bonnell



Service Learning
Director, Assistant
Professor

— TCU and UNTHSC —
School of Medicine

Service Learning
Requirement for Graduation

Through Compassionate Practice

INSPIRING THE PHYSICIANS OF TOMORROW

Software Development Plan

Our use cases:

Use Case 4: Generates Report for One User

Use Case 5: Generates Report for All Users

Feature Delivered: Report Generator

First Iteration



GitHub

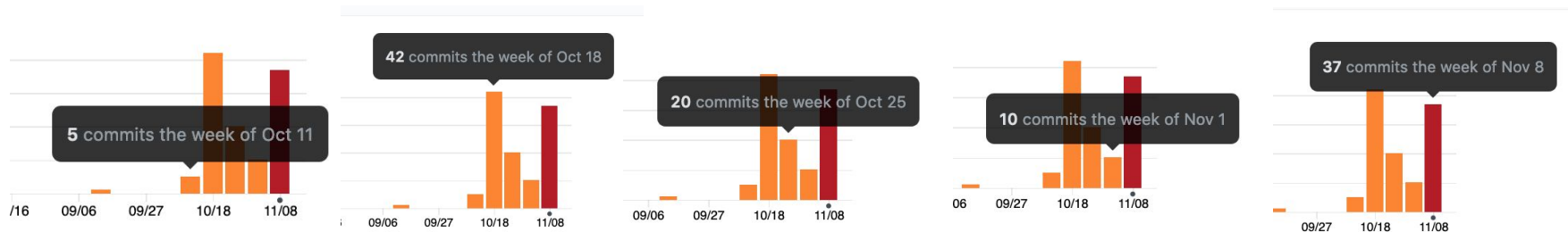
Sep 13, 2020 – Nov 13, 2020

Contributions: Commits ▾

Contributions to master, excluding merge commits



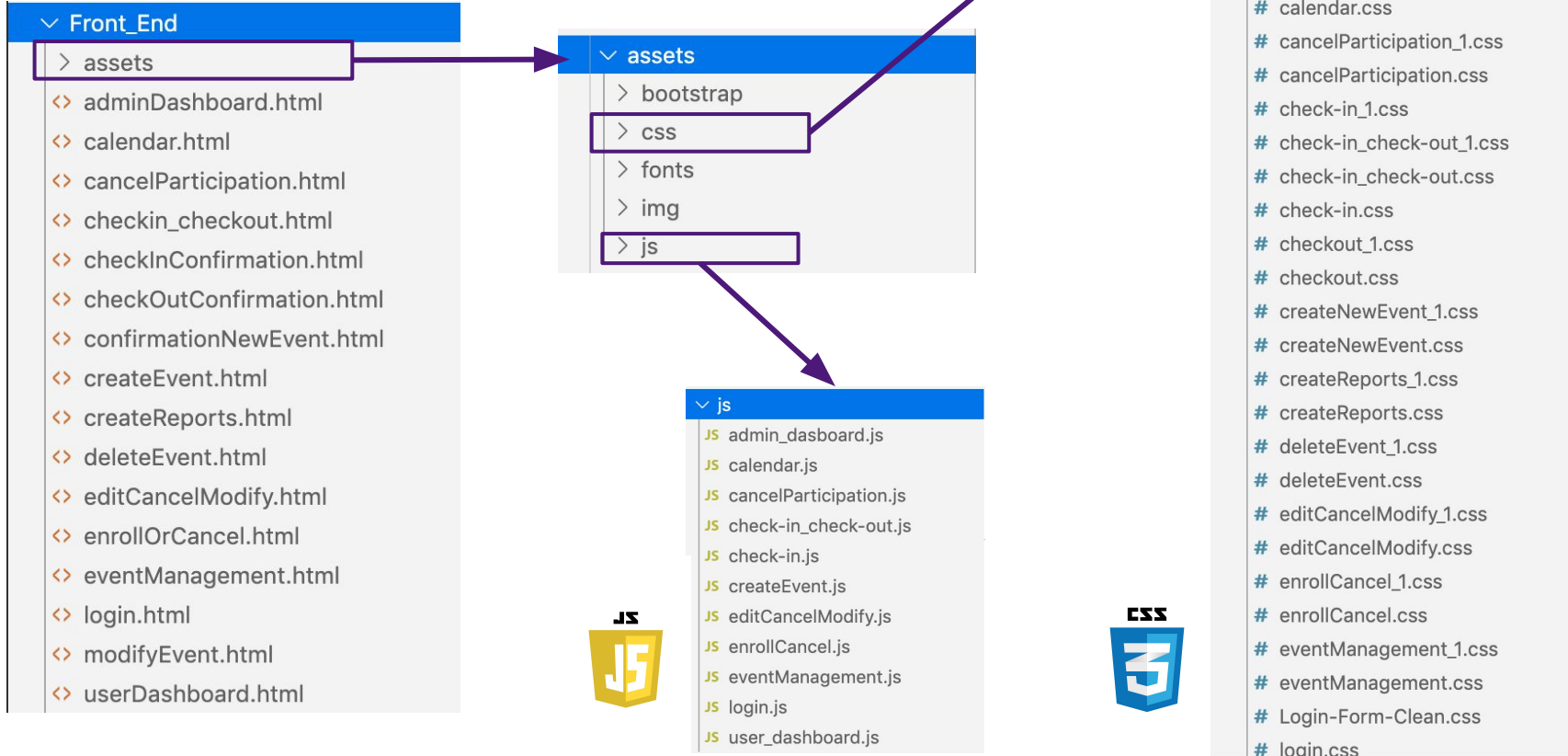
Excluding merges, **6 authors** have pushed **38 commits** to master and **47 commits** to all branches. On master, **554 files** have changed and there have been **1,360 additions**



First Iteration

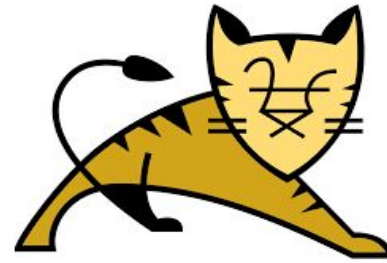
Name/Description	Priority	Size Estimate (Points)	Assigned to	Effort Estimate (Man Days)
Create DB schema	High	2	Lydia	2
Initialize DB with Spring Boot	High	1	Riley	1
Connect the screens HTML	High	2	Maria	2-3
Program login page UI	Medium	2	Maria	2-3
Program sign up page UI	High	2	Maria	2
Program DB functionality for log in page	Low	2	Riley	2
Program DB functionality for sign up page	Low	2	Riley	2
Program calendar UI	High	3	Maria	2-3
Program DB functionality for populating calendar	Medium	2	Riley	3
Program create event UI	High	1	Maria	1
Program remove event UI	High	1	Maria	1
Program DB functionality for creating event	High	1	Riley, Lydia	1
Program DB functionality for removing event	High	1	Riley, Lydia	1
Program import accounts from excel doc	Medium	2	Emery	3
Program Student/Faculty dashboard UI	High	6	Jeshua, Peyton	4
Program user signing up for event	High	2	Jeshua	
Write tests for user signup	Low	1	Jeshua, Emery	
Write tests for user login	Low	1	Jeshua	1
General Announcements from Admin	Low	2	Jeshua	2
Connect forms to DB	Medium	3	Peyton	2
Draw ER Diagram	High	1	Lydia	2
Total				

Front End Structure



FRONT END DEMO!

Back End Structure



- **Technologies**

- Java Spring Boot
- Maven
- Tomcat server
- Hibernate
- SQL database (H2 for development)

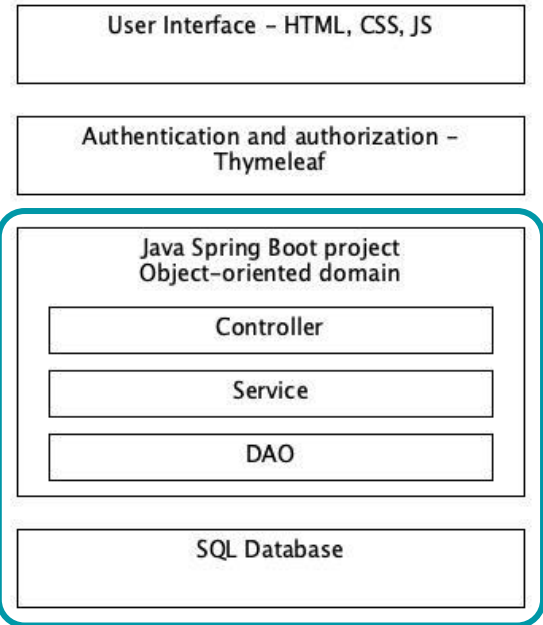


+

Maven™

- **Keeping track of the data**

- Java does it through “objects”
- The Database does it using tables



What Use Cases Look Like From Back End

Table for students:

```
SELECT * FROM STUDENT;
```

STUDENT_ID	EMAIL	FIRSTNAME	GRAD_YEAR	LASTNAME	STATUS
110027064	riley.durbin@tcu.edu	Riley	2021	Durbin	APPROVED
222222222	jim.croce@tcu.edu	Jim	2022	Croce	APPROVED
998898899	abc.def@tcu.edu	abc	2047	def	APPROVED

(3 rows, 1 ms)

Table for events:

```
SELECT * FROM CALENDAR_EVENT;
```

EVENT_ID	CATEGORY	END_DATE_TIME	FACULTY_CAPACITY	START_DATE_TIME	STUDENT_CAPACITY	TITLE	PARTNER_ID
998888899	null	null	5	null	100	Election	null
889999988	null	null	40	null	200	Festival	null
10	TEST1	2020-11-11 10:30:52.495	25	2020-11-11 10:30:52.495	50	Event 1	555
11	TEST1	2020-11-11 10:30:52.495	25	2020-11-11 10:30:52.495	50	Event 2	555
12	TEST1	2020-11-11 10:30:52.495	25	2020-11-11 10:30:52.495	50	Event 3	555
989898989	TEST1	null	4	null	3	aaA	898989898

(6 rows, 1 ms)

Table for waitlists:

```
SELECT * FROM STUDENTS_WAITLISTED;
```

EVENT_ID	STUDENT_ID
989898989	998898899

(1 row, 2 ms)

Table for signup lists:

```
SELECT * FROM FACULTY_SIGNED_UP;
```

EVENT_ID	FACULTY_ID
989898989	889989988

(1 row, 2 ms)

Table for event attendance with hours (in progress):

```
SELECT * FROM STUDENT_ATTENDANCE;
```

CHECKIN	CHECKOUT	HOURS	STUDENT_ID	EVENT_ID
---------	----------	-------	------------	----------

(no rows, 2 ms)

BACK END DEMO!

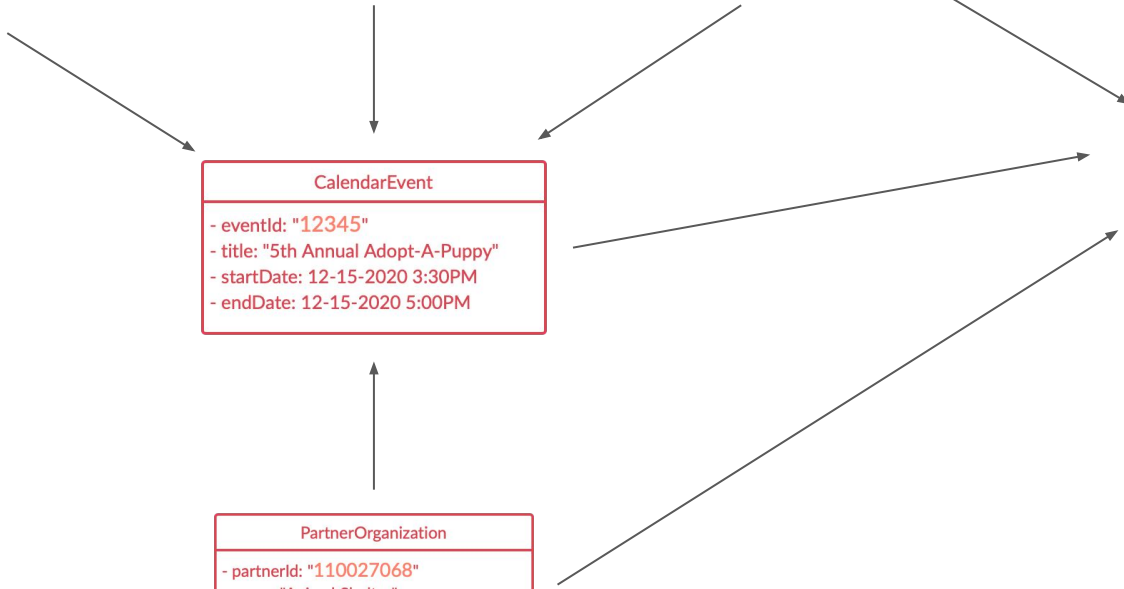
Student
- studentId: "110027065"
- firstName: "Peyton"
- lastName: "Freeman"
- email: "peyton.freeman@tcu.edu"
- gradYear: 2021
- ACCOUNT_STATUS: APPROVED

Student
- studentId: "110027066"
- firstName: "Lydia"
- lastName: "Pape"
- email: "lydia.pape@tcu.edu"
- gradYear: 2021
- ACCOUNT_STATUS: APPROVED

Faculty
- facultyId: "110027067"
- firstName: "Bingyang"
- lastName: "Wei"
- email: "b.wei@tcu.edu"
- ACCOUNT_STATUS: APPROVED

CalendarEvent
- eventId: "12345"
- title: "5th Annual Adopt-A-Puppy"
- startDate: 12-15-2020 3:30PM
- endDate: 12-15-2020 5:00PM

PartnerOrganization
- partnerId: "110027068"
- name: "Animal Shelter"
- email: "ftw.animalshelter@gmail.com"

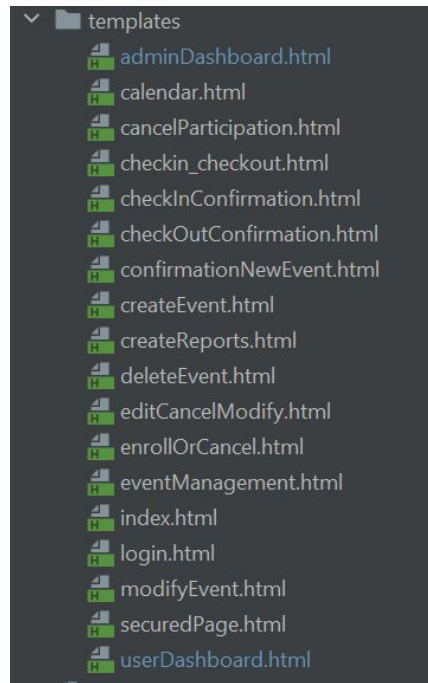


Connecting the Front and Back End



- From static to dynamic
- Turn HTML into thymeleaf templates
- Connect the View to the Model

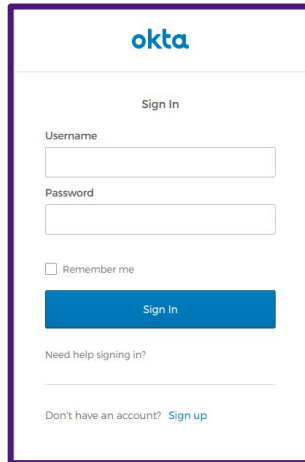
```
<!DOCTYPE html>
<html xmlns:th="http://www.thymeleaf.org">
<div class="col-lg-3">
  <p style="...">Name: </p>
  <p><span th:text="${firstName} ${lastName}"></span></p>
  <p style="...">Class:</p>
  <p><span th:text="${gradYear}"></span></p>
```



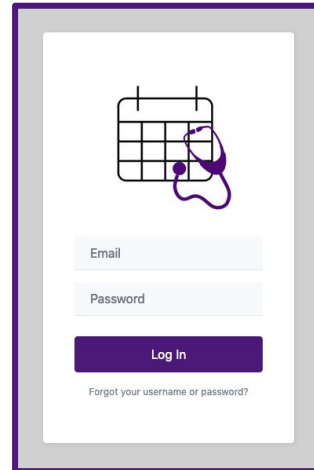
Authentication

- Using Thymeleaf and Spring Security
- Okta to manage all users

```
<div class="login-clean">  
  <form th:action="@{/login.html}" class="text-primary" method="post">
```



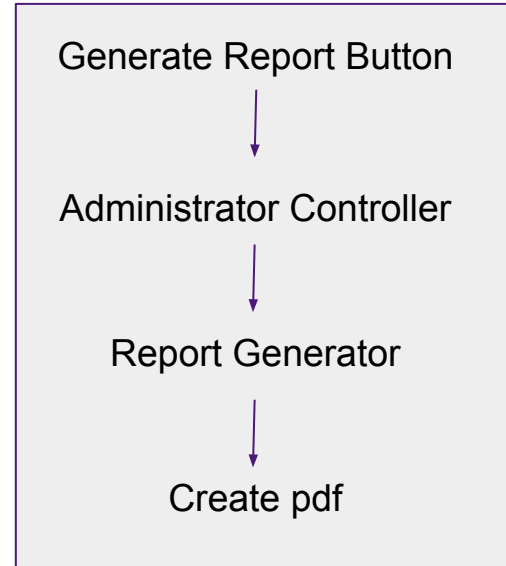
The image shows a screenshot of the Okta Sign In form. At the top, the Okta logo is displayed in blue. Below it, the text "Sign In" is centered. The form contains two input fields: "Username" and "Password". Below the password field is a checkbox labeled "Remember me". A blue "Sign In" button is positioned below the checkbox. At the bottom of the form, there is a link "Need help signing in?" and another link "Don't have an account? Sign up".



The image shows a screenshot of a custom login form. At the top, there is a calendar icon with a purple stethoscope overlaid on it. Below the icon are two input fields: "Email" and "Password". A purple "Log In" button is located below the password field. At the bottom of the form, there is a link "Forgot your username or password?".

Functionality: Generating Reports

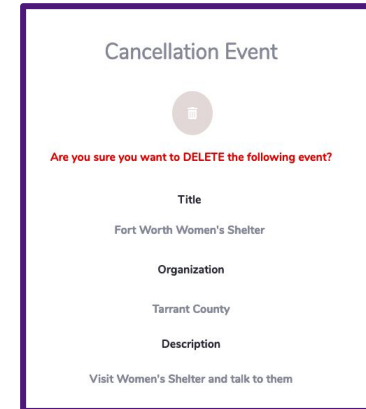
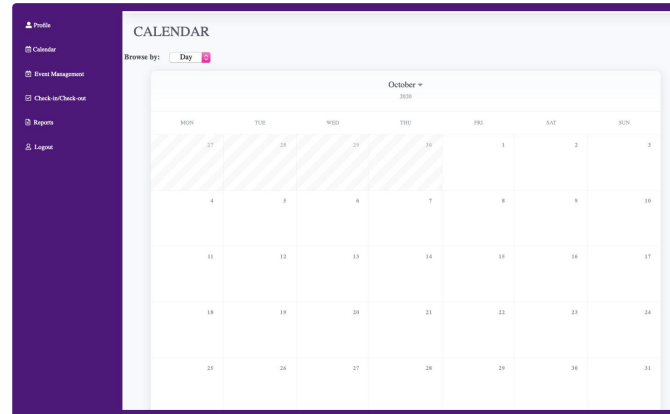
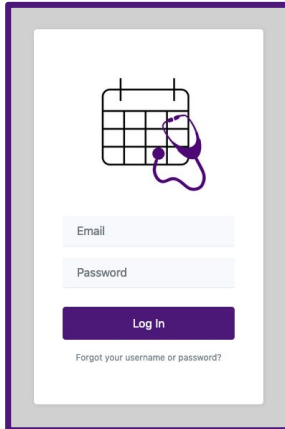
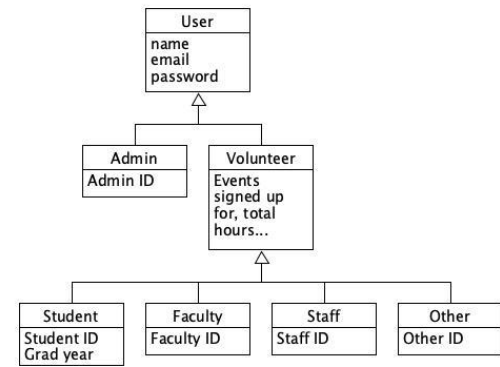
- Dr. Bonnell asked for the capability to see reports of students generated by the application
- Process:
 - Administrator clicks to generate report
 - Admin Controller receives request and creates a new instance of “Report Generator”
 - Report Generator takes all of the relevant data from a List of every student and formats it into a pdf
 - Pdf is named, dated, and downloaded
- Next: expand to generate reports of more specific groups, Ex:
 - Who worked on a specific volunteer project
 - All students from a specific class



Plans for Winter Break

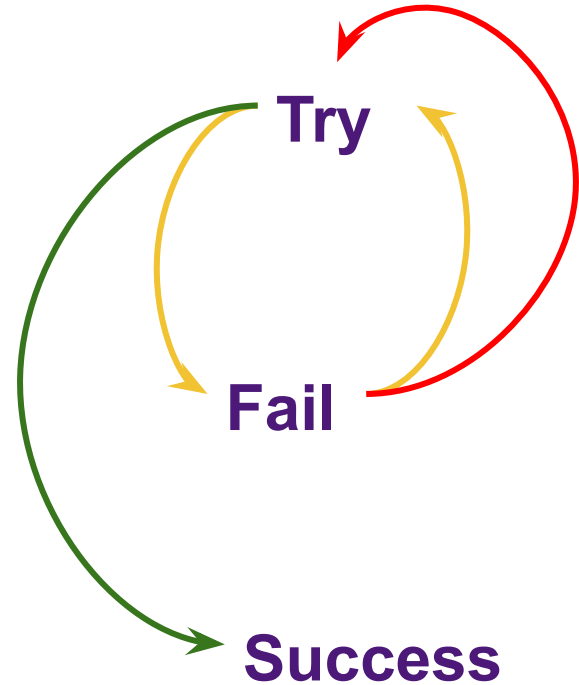
November 25th, 2020 - January 18th, 2021

- Fully implement Thymeleaf
- Set up validation for user input
- Finish functionality to store/access event attendance information and hours
 - UC 1, UC2, UC3, UC7, UC8, UC11
- Possible refactoring of back end class hierarchy



Lessons Learned

- Start small
- Importance of code review
- Seek Help When You Can't Cope on Your Own
- Keep on Learning



Plans for Spring 2021

- Acceptance and regression testing
- Any minor improvements Dr. Bonnell asks for.
- Push notifications, check-in and check-out of events.
 - UC 9, UC 10
- Delivery of the project.



=



Refer to

You can always go to

<http://riogrande.cs.tcu.edu/>

2020-2021

ReadySet Go

2020-2021

We are a senior design team dedicated to creating an online application for one of these research projects. We seek to create a platform for people to train, learn from, and play against various AI in the game of Go.

Covid Tracker

2020-2021

One paragraph summary.

Truck Detective

2020-2021

One paragraph summary.

Smart Homeopathy Doctor App

2020-2021

One paragraph summary.

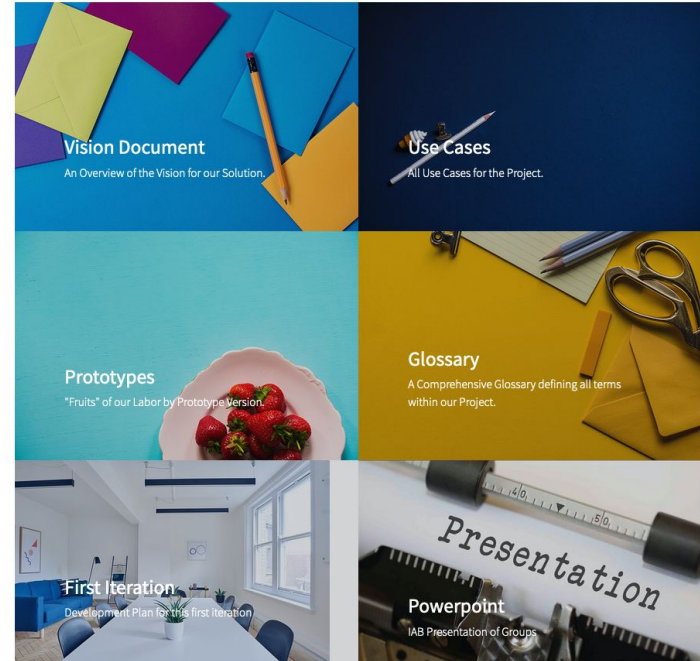


SOM Volunteering System

2020-2021

The TCU and UNTHSC School of Medicine requires its students to participate in service-learning with various non-profit partner organizations in the community. Our team's goal is to make the volunteer sign-up process easier and more convenient for med students, to automate the tracking of students' hours, and to ease the burden on faculty in charge of managing the entire process. We aim to accomplish these goals with a web application that will streamline the volunteer scheduling and hour-tracking process for students and faculty.

Deliverables



**THANK YOU FOR
YOUR
ATTENTION!**