Heart Screening Management System - Milestone 5

Team Members
Carlo Campanini
Chris Newberry
Drew Dunkelberger
John Dewey
Noah Wilson

Client
Evan Ernst, CEO
Klynton Holmes, Tech Advisor

Faculty Sponsor
Dr. Eraldo Ribeiro

Milestone 5 Overview

- Accountant role
  - Tables for payments in UI
  - Refunding, cancelling, and flagging participants
  - Search/Filter backend functionality
  - Exporting payments to spreadsheet
- Participant status changes
- QR code generation
- Bug fixes
  - Event editing
  - Payeezy Test Payment
  - Remove registration limit and time slots
- Created poster for showcase
- Created ebook for showcase

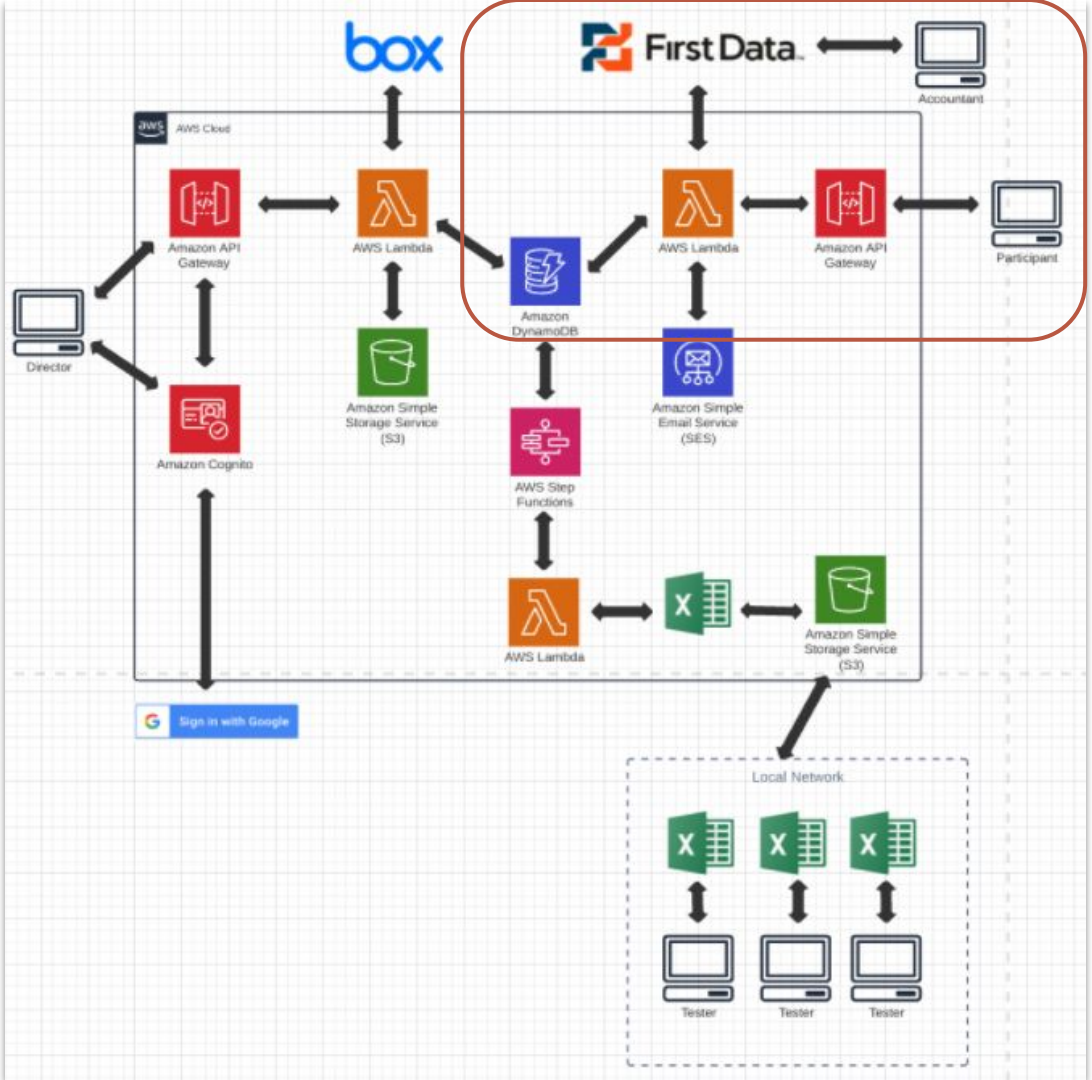
Task	Completion %	Carlo	Chris	Drew	John	Noah	TODO
1.Accountant Role	90%			50%	50%		Create dedicated GSuite account
2.QR Code Generation	99%	50%				50%	In future, implement internal QR code generation for improving user experience
3.Bug Fixes	80%		25%	25%	25%	25%	Implement solution for event-editing bug
4.Project Poster	100%	10%	80%	10%			
5.Ebook Page	100%	75%	25%				

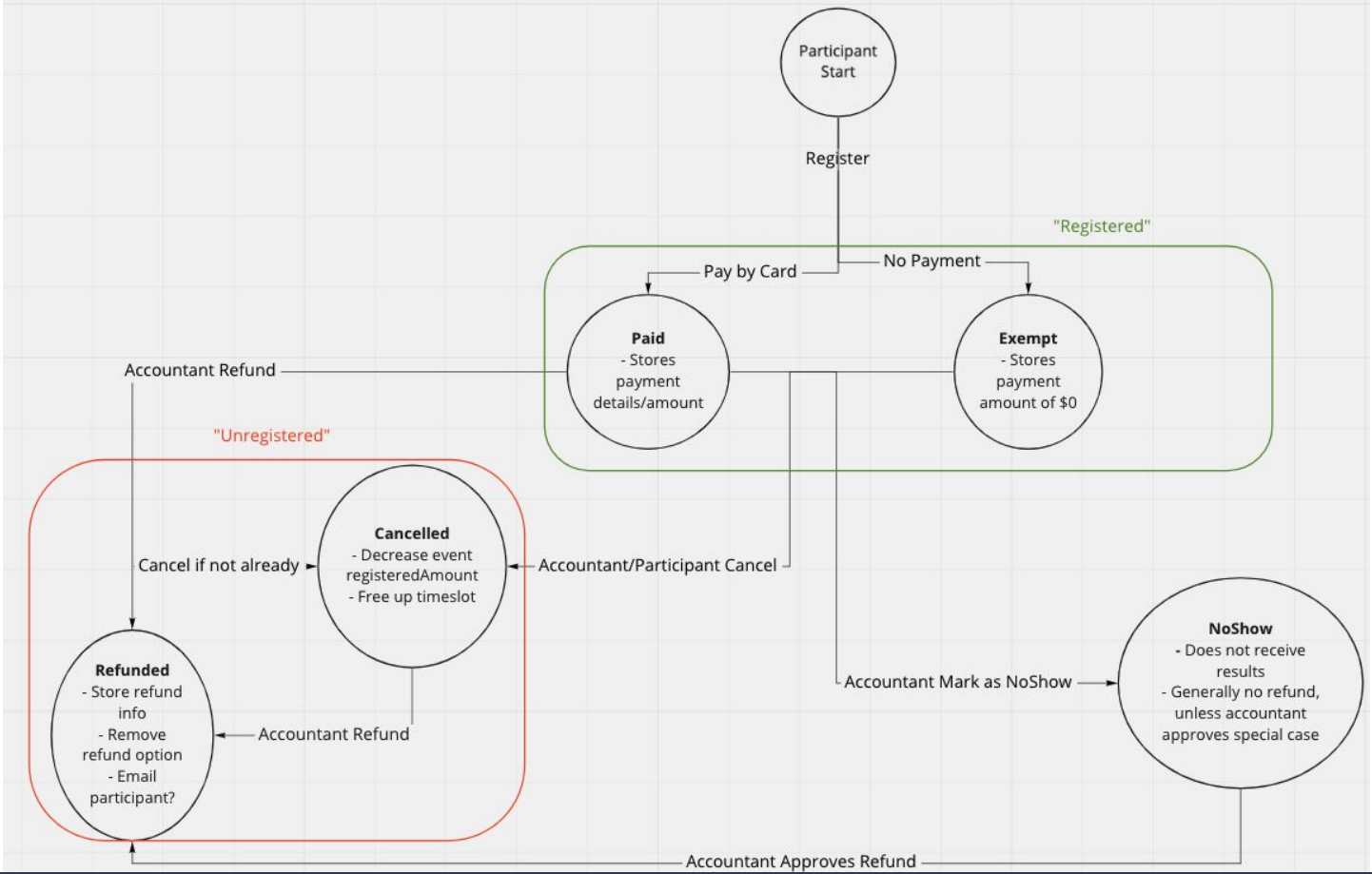
Current Progress Matrix

Milestone 5 Areas of Focus

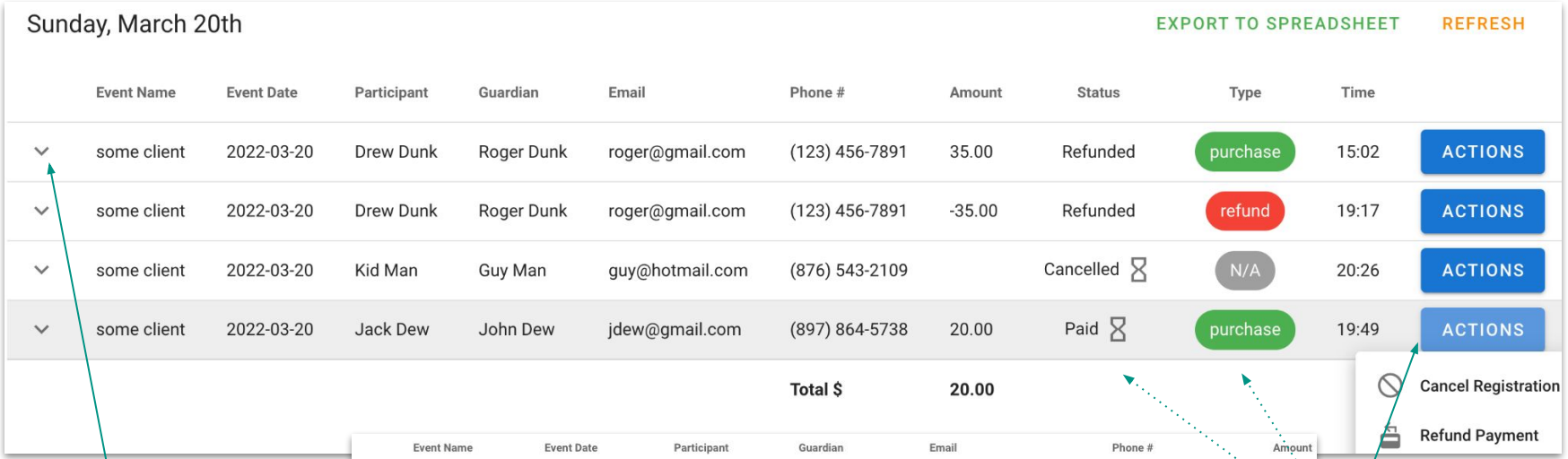
Accountant Role/UI

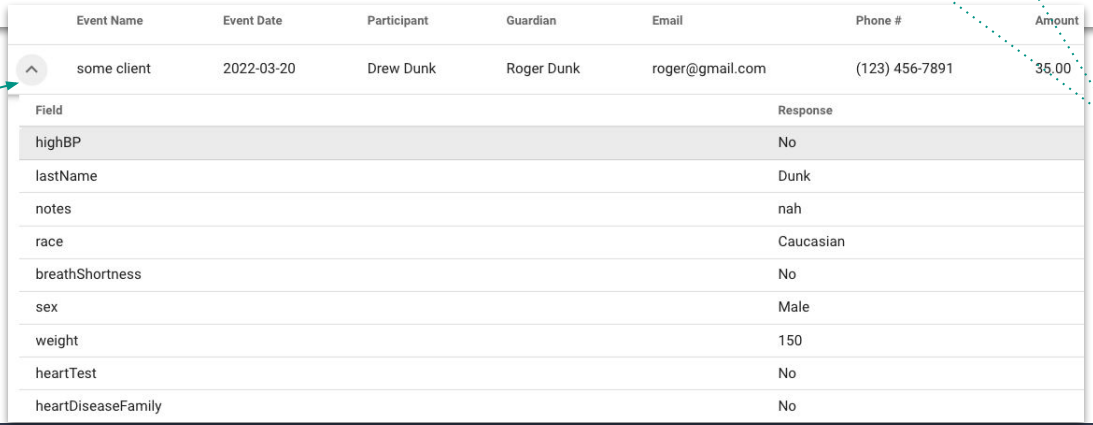
On-site registration





Participant State Diagram - Controlled by Accountant Actions

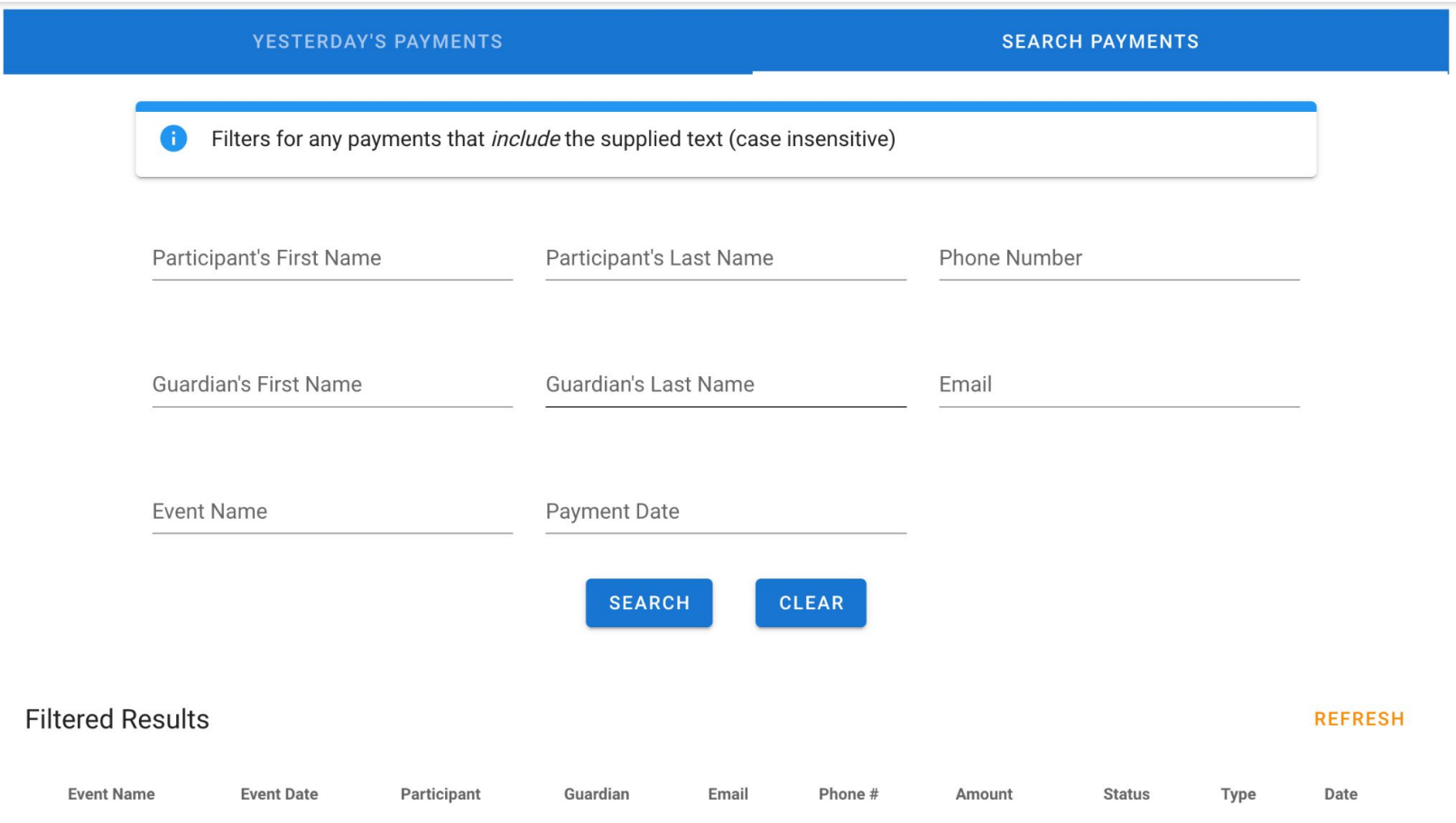




Dropdown questionnaire responses

Actions adjust based on participant **Status** and payment **Type**

Accountant UI - Yesterday's Payments Tab



Accountant UI - Search Tab

Project Poster

NORTHROP GRUMMAN
ENGINEERING & SCIENCE
STUDENT DESIGN SHOWCASE
FLORIDA TECH

Heart Screening Management System

Carlo Campanini, Christopher Newberry, Drew Dunkelberger, John Dewey, Noah Wilson

Faculty Advisor: Dr. Eraldo Ribeiro, Dept. of Computer Engineering and Sciences, Florida Institute of Technology

Motivation

- In America, heart disease is responsible for the death of one person every 36 seconds, and is the leading cause of death for more than 8.5 million student athletes.
- Our group, alongside Who We Play For, represent the thousands of children each year that suffer sudden cardiac arrest from detectable heart conditions.

Project Goal

- Our Goal is to work with Who We Play For to provide a large-scale web application that will be used by volunteers across America to conduct and manage heart screenings for millions of student-athletes each year.

Project Purpose

- Our Purpose is to detect harmful heart conditions, prevent sudden cardiac arrest, and save the lives of student athletes.
- By developing this application for Who We Play For, we provide them the necessary tools to reduce SCA on a nationwide level.

How It Works

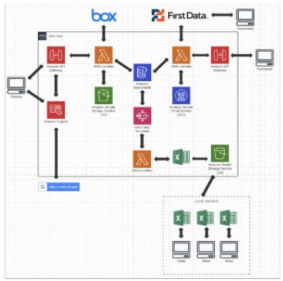
- Event directors create and manage their events through a custom interface. Student-athletes register online via a public registration page or a private link and receive payment confirmation and a reminder for the event. If participants show up before registering online, they can register on-site by scanning a QR code. Who We Play For volunteers then conduct an electrocardiogram (EKG) on the participant. The EKG data is then processed by external software to determine if there are any cardiovascular irregularities. Once that has been determined, participants receive an email with their results.

Features

- Participant
  - On-Site Registration
    - QR code generation
    - Periodic updates to registration spreadsheets on local machines from cloud storage
- Director
  - Event Finalization
    - Automatic email reminders to participants on the night before an event
    - Automatic online public registration closure
  - Private Events
    - Unique registration links
- Accountant
  - Filter past payments by participant, guardian, email, phone number, event name, or date
  - Export daily summary of payments to excel spreadsheet
  - Authorize refunds, cancel registration, and mark participants as absent

System Architecture

- Stack/Framework: Amazon Web Services, Terraform, Vue.js, Node.js



User Interface

- In order from top to bottom: director dashboard, director event creation, participant registration page, and accountant search page

Acknowledgments

- Dr. Eraldo Ribeiro and Dr. Philip Chan for academic guidance.
- Evan Ernst and Klynton Holmes for the opportunity to work with Who We Play For.
- Every person and organization providing continuous support and inspiration for Who We Play For.

Demo: Accountant UI

Milestone 6 Tasks

1. Demo Video
2. User/Developer Manual
3. Finish up Accountant Role
    a. Google suite authentication
    b. Address beta testing feedback
4. Begin Admin UI (tentative)
    a. Ability to approve deletion of events
5. Perform Beta Testing

Questions?