**Lewis University**

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**Community Events Website**

**Group Name: Community Site**

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Contents

[Project Proposal/Description 3](#_Toc102109835)

[Features 3](#_Toc102109836)

[Software Environment 3](#_Toc102109837)

[Framework Specification 3](#_Toc102109838)

[Team Responsibility 4](#_Toc102109839)

[Test Plan 4](#_Toc102109840)

[Potential List of Features to Consider: 5](#_Toc102109841)

[Requirements: Software Installation 5](#_Toc102109842)

[Database Diagram (dbdiagram.io) 19](#_Toc102109843)

[Website navigation diagram (Visio) 20](#_Toc102109844)

[Web page descriptions 20](#_Toc102109845)

[Landing 20](#_Toc102109846)

[Register Volunteer 20](#_Toc102109847)

[Register Organization 20](#_Toc102109848)

[Login 21](#_Toc102109849)

[Dashboard 21](#_Toc102109850)

[Create Profile 21](#_Toc102109851)

[Edit Profile 21](#_Toc102109852)

[Create Event 21](#_Toc102109853)

[Edit Event 21](#_Toc102109854)

[View Positions 21](#_Toc102109855)

[Add Position 21](#_Toc102109856)

[Edit Position 22](#_Toc102109857)

[Event Details 22](#_Toc102109858)

[Find Event 22](#_Toc102109859)

[Conclusion 22](#_Toc102109860)

# Project Proposal/Description

Our template for a community event website can be used by any community to organize events. Organizations can create events, request specific skills, and be knowledgeable of how many volunteers will be helping. Volunteers can view open community events and sign up for positions. An example of the template site can be accessed via <https://capstone-community-site.herokuapp.com/>.

# Features

* Organizations and volunteers can create accounts
* Organizations can create events and modify existing events
* Organizations can request specific skills for positions on an event
* Volunteers can view open events and events they have signed up for
* Volunteers can list their skills on their profile which organizations can view

# Software Environment

Software tools used for development:

* Microsoft Visual Studio Code: Integrated development environment
* MongoDB Atlas: Cloud database
* Github: Source code management
* Heroku: Website hosting

# Framework Specification

* JavaScript
* NodeJS: back end
* React: front end
* HTML/CSS

# Team Responsibility

* Darryl Karney – Volunteer/Organizer profile, event, and position functionality. Account dashboard functionality and landing page. MongoDB Atlas setup and management. Heroku setup and management.
* Adiba Mohammed – Volunteer/Organizer login and registration functionality. Project manual.

# Test Plan

|  |  |
| --- | --- |
| Feature | Input Tested |
| Create organization account and add event | Created organization Fair Oaks Community Center with email as foaks@gmail.com. Set profile information as Fair Oaks, IL. Created June Food Drive event under Fair Oaks account. Created 1 driver position, 5 bagger positions, and 1 supervisor position. |
| Create volunteer account and sign up for events | Created volunteer account for Austin Benz with email [abenz@gmail.com](mailto:abenz@gmail.com). Set profile information as Fair Oaks, IL with IT Hardware Support, Paintin, and Construction skills. Signed up as a bagger for the Fair Oaks food drive event. |

# Potential List of Features to Consider:

* Calendar reminders: The ability to have a user add an event to their personal calendar via an ics file or another format.
* Email notifications: The ability for organizations to email volunteers or get email reminders about events signed up for.
* Multi-day events: Currently, events can only be schedule for a specific date and time requiring multi-day events to need to be created as multiple events. Multi-day event scheduling would help alleviate this.
* Filtering events: A large community may have dozens of events planned. This would make it more difficult for users to look through the list of all events.

# Requirements: Software Installation

* Microsoft Visual Studio Code - <https://code.visualstudio.com/download>
  + Recommended extensions: Auto Rename Tag, Bracket Pair Colorizer, ES7+ React/Redux/React-native snippets, Prettier – Code formatter

Microsoft Visual Studio Code is free software offered by Microsoft which allows the user to have a simple development environment that supports many features such as project file viewing/traversal, project keyword search, source control management, debugger, extensions, testing, and an in-window terminal. It can be downloaded from the link above.

The recommended extensions help in the following ways. Auto Rename Tag makes it easier to rename both opening and closing tags of an HTML element at the same time. Bracket Pair Colorizer colors each start and end brackets that match to be the same color. This makes it easier to find issues with missing or excess brackets. ES7+ React/Redux/React-native snippets gives Visual Studio Code support for React/Redux and React-Native syntax. Prettier – Code formatter improves readability of code by coloring different components different colors.

* MongoDB Atlas - <https://www.mongodb.com/atlas/database>

1. Create a MongoDB Account: <https://account.mongodb.com/account/register>
2. Once your account is created and signed in, create a new project

Graphical user interface, text, application

Description automatically generated

1. Name your project and click next (The name does not matter).

Graphical user interface

Description automatically generated with medium confidence

1. Add permissions to additional accounts if necessary. Your account will automatically be set as the project owner. Afterwards, click Create Project.

Graphical user interface, text, application

Description automatically generated

1. Click Build a Database

Graphical user interface, text, application, chat or text message

Description automatically generated

1. Click Create on the free Shared option

Graphical user interface, application

Description automatically generated

1. Leave all settings on the next page and click Create Cluster at the bottom of the screen.
2. You will automatically be navigated to the Security Quickstart screen. Create a user that will be used to connect to the database.

Graphical user interface, text

Description automatically generated

1. Click Network Access on the bottom left menu.

Graphical user interface, text, application, chat or text message

Description automatically generated

1. Click Add IP Address

Graphical user interface, text, application, website

Description automatically generated

1. Click ALLOW ACCESS FROM ANYWHERE and then click Confirm.

Graphical user interface, text, application, email

Description automatically generated

1. Click Database on the menu on the left side of the screen.

Graphical user interface

Description automatically generated with low confidence

1. Click on the Connect button on the cluster.

Graphical user interface, text

Description automatically generated

1. Click on Connect your application

Graphical user interface, text, application, email

Description automatically generated

1. Copy the connection string from the box circled in red

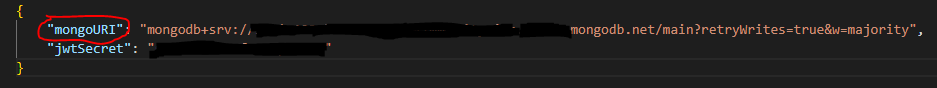
Graphical user interface, text, application

Description automatically generated

1. Paste this connection string in the mongoURI property in both the default.json and production.json files in the config folder of the project. Modify the username and password in the string to the username and password you created in step 8.

Graphical user interface, text

Description automatically generated



1. Go back to MongoDB Atlas and click Browse Collections.

Graphical user interface, text, application, chat or text message

Description automatically generated

1. Click Add My Own Data

Graphical user interface, text, application, chat or text message

Description automatically generated

1. Enter Main as the Database Name, eventstatuses as the collection name, and click Create.

Graphical user interface, text, application

Description automatically generated

1. Click Insert Document on the upper right.

Graphical user interface, application

Description automatically generated

1. On the window that pops up, add one property named status which is a string. You will need to add three different records. The three status values should be Open, Full, and Completed. Your collection should look like this (with different object ids) once complete.

Graphical user interface, application

Description automatically generated

MongoDB Atlas allows you to create a cloud-based MongoDB database which your website can access for data storage. Using the instructions listed, a free database can be set up. Please not that if your database size becomes too large, you will need to start paying a small fee to continue the hosting of the database. MongoDB is a NO SQL database that makes it easy to add new fields or even have records with a differing number of fields. This is different from typical relational databases such as MS SQL Server in which each record must have the same columns, even if some records have the data in the column set to NULL.

* Github - <https://github.com/>
  + Create an account
  + Clone existing repository into a new one on your account
  + Make changes necessary for your community

Github is a useful site for code collaboration and project file hosting. The general-purpose version of the site can be found at <https://github.com/DarrylK92/MERN-CommunitySite>. Clone the repository from that link into a repository on your own account. From there, clone your repository locally to begin making your changes.

* Heroku - <https://www.heroku.com/>

1. Create a Heroku account and sign into your account
2. Click Create a new app

Text, application

Description automatically generated

1. Add an app name, this will be in the URL for your website. Click Create app.

Graphical user interface, text, application, email

Description automatically generated

1. Install the Heroku CLI appropriate for your computer via the following link: [The Heroku CLI | Heroku Dev Center](https://devcenter.heroku.com/articles/heroku-cli#install-the-heroku-cli)

Graphical user interface, application

Description automatically generated

1. Once installed, type the following into the Git command line:



1. After you’ve logged in, follow the instructions on your Heroku project dashboard to add a remote link to Heroku. The command looks like this.



1. To perform the initial push to Heroku, run the following in the Git command line.



1. Any time you want to push changes up to Heroku, run the following.

Word

Description automatically generated with low confidence

Heroku is a site you can use to host your website for free as long as you are okay with having “.herokuapp.com” in your URL. If not, you can use one of their paid plans to host the site.

# Database Diagram (dbdiagram.io)

A screenshot of a computer

Description automatically generated with low confidence

# Website navigation diagram (Visio)

Diagram

Description automatically generated

Blue - Both

Green - Volunteer only

Orange - Organization only

# Web page descriptions

## Landing

This is the main page that will display when navigating to the website’s root. The website name and background can be customized to fit the community.

## Register Volunteer

This page has a form used to register a new volunteer. The fields in the form are Name, Email Address, Password, and Confirm Password.

## Register Organization

This page has a form used to register a new organization. The fields in the form are Organization name, Email Address, Password, and Confirm Password.

## Login

This page has a form used to sign in to either an organization or volunteer account. The fields in the form are Email Address and Password.

## Dashboard

This page is the page users of any account will be navigated to after logging in. If the user hasn’t yet created a profile, they will be asked to do so before continuing. If they already set up a profile, they will have access to the following. They can navigate to the edit profile or view profile pages or delete their account. If the user is an organization, they also have an “Add Event” button which navigates them to a form to create an event. They also have a list of events they created. Each event in the list has an edit button and a delete button. If the user is a volunteer, they have a “Find Event” button where they can find open events in their community. They also have a list of events they have signed up for. For any event in this list, they can view event details or positions for the event.

## Create Profile

This page is a form any account type can use to create their profile. If the user is an organization, this form will have City, State, and Bio fields. If the user is a volunteer, this form will have City, State, Skills, and Bio fields.

## Edit Profile

This page is a form any account type can use to edit their profile. If the user is an organization, this form will have City, State, and Bio fields. If the user is a volunteer, this form will have City, State, Skills, and Bio fields.

## Create Event

This page is a form an organization account can use to create an event. This form has the fields Event Name, Event Date, Event Description, Event Address, Event City, and Event State.

## Edit Event

This page is a form an organization account can use to edit an event. This form has the fields Event Name, Event Date, Event Description, Event Address, Event City, and Event State. This form also has an “Edit positions” button which can be used to add or edit positions to the event.

## View Positions

This page can be accessed by either account type. For either account type, a list of positions for the current event will be displayed. If the user is the organization that created the event, they will additionally have a “Add Position” button they can use to add additional positions. They also have buttons to edit or delete any existing position or remove a volunteer from a position. A volunteer account will have “Sign Up” buttons next to each position if they are not already signed up for one. If they are already signed up for an event, they will only have a “Cancel Sign Up” button next to the position they are signed up to.

## Add Position

This page is a form an organization account can use to add positions to an existing event. They have fields for Position Name, Requested Skills, and the number of positions to create. Once they submit the form, they will be navigated back to the event positions list with their new positions added.

## Edit Position

This page is a form an organization account can use to edit a position on an existing event. They have fields for Position Name and Requested Skills.

## Event Details

This page is accessible by volunteer accounts for a position. It displays information about an existing event including Name, Date, Description, Address, City, and State.

## Find Event

This page is accessible by volunteer accounts. It displays a list of open events with a position open. The volunteer can then view details about each event or positions available.

# Conclusion

In conclusion, our website will be a good template for any community that would like to set up a website to help them organize events. The repository can be cloned from <https://github.com/DarrylK92/MERN-CommunitySite> and then modified as the specified community would like. While working on this project, we learned about the different layers required to develop a website, how to collaborate with Github, how to host a website using Heroku, how to set up a MongoDB Atlas database on the cloud, and how to use the MERN stack to develop a website. The website could be further worked on by adding features under the potential list of features to consider section of the documentation.