

# **Individual Project Proposal**

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**CSC 415 Fall 2019**

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## **Important Information:**

VM: [student1@csc415-server06.hpc.tcnj.edu](mailto:student1@csc415-server06.hpc.tcnj.edu)

Path: Move\_Again/Move\_Again/src

Github Repository Name: Move\_Again

Repository Path: [https://github.com/Brian-Dawson/Move\\_Again](https://github.com/Brian-Dawson/Move_Again)

## **Project Title:**

Move\_Again

## **Social Issue:**

Many elderly people are no longer able to drive themselves to places or events. This often makes them disheartened and can cause them to become distant from communities that they have been involved with for years if not decades. This is a big issue as it isolates them and deprives them of their freedom.

## **Project idea in one sentence:**

Restoring the ability for elderly people to attend events important to them through a computational solution.

## **Option Choice with rationale:**

I choose Option 2 because this is a social issue that I am interested in. I believe that my solution can realistically improve the issue and provide a solution to the people affected by the problem.

## **Web based or mobile app with rationale for language, framework, and platform as appropriate:**

I am planning to create my application in a web app based on Ruby with some HTML, CSS, and Javascript. This framework I will be using will be Ruby on Rails.

## **Why innovative or interesting and how addresses social issue:**

This project is interesting because it addresses an issue that is often overlooked, the lack of mobility in elderly people once they are no longer able to drive themselves to places. It provides a computational solution that will make the process of arranging transportation for these people

much easier and efficient. This will allow them to stay mobile for longer and continue to do the things that they like.

### **Algorithm and rationale:**

The algorithm I will be using will be a search and sorting algorithm designed to match the seniors with volunteers who are able to drive them to the event. I will be using this kind of algorithm as I feel it fits the best for the problem and is best suited to be able to match effectively and efficiently.

### **Data structure(s) and rationale:**

The data structures I will be using will be a combination of hashes and arrays. I will use these as they are best suited for the kind of data I will be collecting and holding. I will change between the two depending on which one is best for the situation.

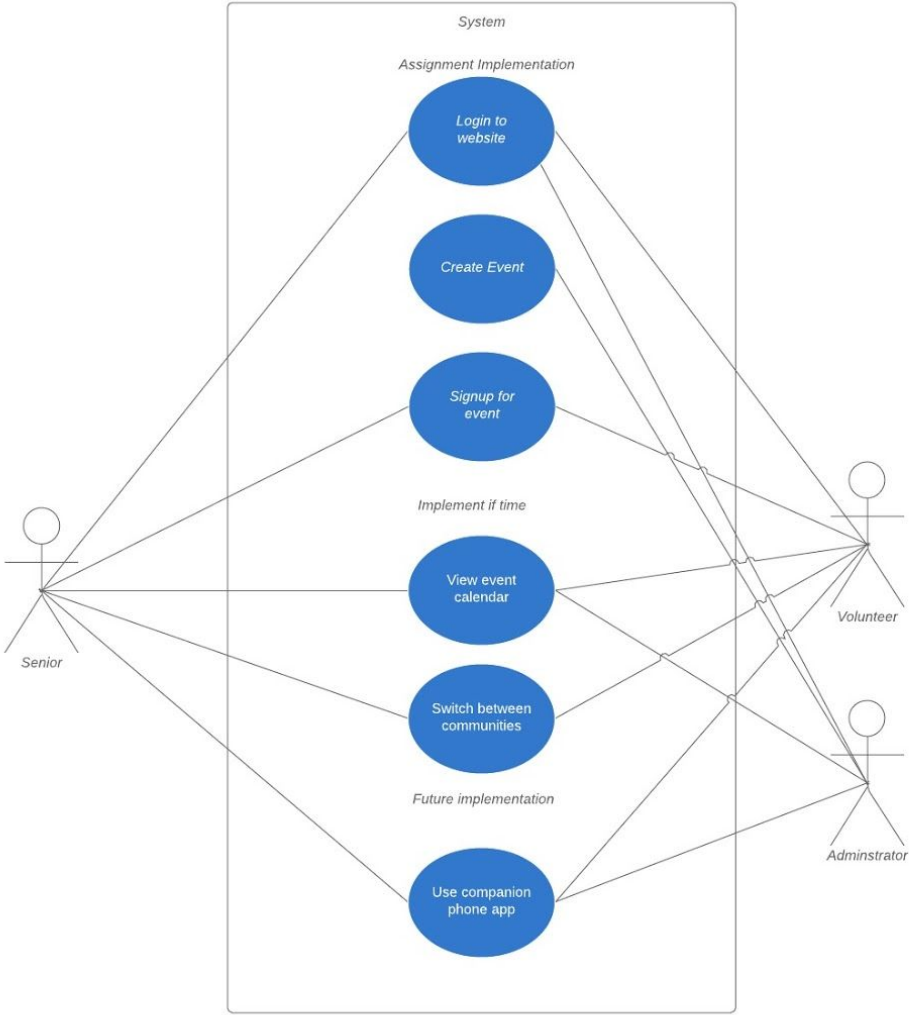
### **New software engineering concepts or concepts to reinforce:**

I expect to both learn some new software engineering concepts as well as reinforce several concepts I already have learned. Some of the new concepts include learning about how to create a web application from a software engineering perspective and how to code in a secure fashion as this application will require security to make sure data isn't leaked or lost. Choosing the correct process model and following each step is one concept I expect to reinforce during this assignment. I also expect to reinforce the concepts of the different diagrams created when doing a project such as a use case diagram or a system sequence diagram.

### **Use case diagram:**

Move\_Again Use Case Diagram

Brian Dawson | October 2, 2019



## Project timeline:



## Resources:

Agile Web Development with Rails 5.1

<https://guides.rubyonrails.org/index.html>

<https://www.railstutorial.org/book/beginning>