

## **Final Project Project Proposal**

**Group:** Arrays Start at 1

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### **Overview**

For the final project we are proposing that we develop a secure web application to track activities and if time permits travel. For example the web application can be used to track activities such as skiing running, biking, hiking, etc and will be able to see statistics on each activity. Using skiing as an example, a user would be able to track where they skied, number of runs they took, what pair of skis they used, the cost of lift tickets, etc. Besides logging activities the user will be able to view metrics such as but not limited to how many days they have skied each year, how much they have spent on lift tickets, how many times they have skied each mountain. This concept can also be applied to the other activities mentioned above and possibly others that we think of as we develop.

If time permits we would also like to incorporate a travel tracker aspect into the application. This part of the application would provide the user a place to keep track where they have traveled particularly where they have flown. A user would be able to create a trip with starting and destination airports and the application would be able to calculate the amount of miles flown (using gps coordinates using data obtained from OpenFlights) as well as track airline, plane ticket cost, etc. Like the activity portion of the application, it would also show metrics on number for flights taken, number of miles flown to name a few.

### **Core Features**

1. Authentication - Ability to register, login, and change password and basic user information
2. Track an activity- The ability for the user to log(insert) an activity into the database. This will most likely consist of a form to collect information related to a particular type of activity. For example skiing would have runs and lift ticket cost while hiking could have miles and elevation gain.
3. Edit a logged activity entry- the ability for a user to edit an activity that they have logged.
4. Delete a logged activity entry- the ability for a user to delete an activity that they have logged
5. Dashboard: a dashboard showing metrics (possibly graphs if we can use javascript graph libraries) to show information about the log activities.
  - a. Some information can include number of times you perform each type of activity as well as summing certain fields for each activity type ie: total miles hiked
6. Home page showing anonymous metrics like total number of user activities tracked by the application

### **Extra Features**

1. Travel tracking: the ability to track travel such as flights.
  - a. Add a travel entry: ability for user to add a travel entry
  - b. Edit a travel entry: ability for user to edit a travel entry

- c. Delete a travel entry: ability for user to delete a travel entry
- 2. Travel Dashboard: a page that displays metrics (possibly graphs if we can use javascript graph libraries) on travel ie: total miles flown, total number of flights taken, top destinations and airlines.
- 3. Add custom activities: The ability for a user to create and log an activity that we do not build into the app