CS 190 Project Requirements Proposal

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GeoEvent

1. **Title: GeoEvent**

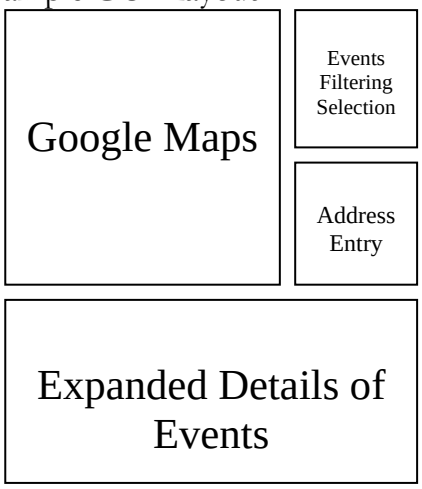
2. **Description**

   GeoEvent is designed for Rhode Islanders looking for something to do. Often people want to go out and do something but lack the motivation, time, or energy to put in the effort to actually find that something. Newspaper listings lack the ability to adapt to any of the specific needs of the user and can be hard to use. GeoEvent will be able to mesh the current events listings from the newspaper (the Providence Journal since it is Rhode Island based) with the Google Maps API to provide a much more interactive and intuitive way to look for interesting activities. One current example of a similar project can be found at http://api.local.yahoo.com/eb/demo/. GeoEvent will go beyond, however, and provide additional useful features (specified in section 3 below).

3. **Feature Set/Priorities** *(Rated 1-6: 1 being the highest priority)*

   (The priority rating is a result of responses to questions from possible users and an attempt to mirror similar existing interfaces in order to increase the intuitiveness of the project's use)

   a. Basic Sample GUI Layout



   b. Google Maps API with flags marking the location of local events that qualify for the filter parameters provided. [1]
      i. This will be a frame on the page containing a Google Map of the area. When GeoEvent is first opened up, the default map should be of

Providence and all filter types of events should be included on the map. All events are marked by a flags which can be clicked for details (more details in section d below.)

c. Be able to enter in a 'base' address (the address the user will be starting from, for example their home address or the address of their office if they are leaving from work [2]
d. Clicking on an event on the map should:
    i. Essentially, when an event's flag is clicked, the flag should expand to show the brief details of the event in a concise, readable, and consistent manner.
    ii. Display the event location [2]
    iii. Display the event time [2]
    iv. Display the price of the event [2]
    v. Show the distance from specified base address (if there is one, other wise this field should not be included in the flag information) [3]
e. An interface (preferably, and most intuitively a calendar) for choosing the dates to search over[2]
    i. Be able to choose more than one date at a time [4]
f. Ability to filter types of events (e.g. choose only Theatre & Museum) [2]
g. Be able to get directions to a specific event [3]
h. Display below the map window a list of the filtered events [1]
i. Have an interface that will learn from past usage and be able to 'suggest' events [6].
    i. Using past inputs (searches and events the directions were found for) from the user, GeoEvent would be able to find and 'suggest' similar types of events that the user might enjoy

The first priority (priority one) is having a map that shows and lists the events around Rhode Island. This is absolutely essential. For this project to have real usefulness, all items in priority two should be implemented. This includes event details including time, location, and price. The third set of priorities are extremely useful and what would make this project more useful than what is currently available since it would integrate the direction creating capabilities of Google Maps into the project, but is not essential to the overall functionality of the project. Beyond that, other items are helpful and added bonuses, but not what truly define the project.

4. Usage Scenarios

Usage Scenarios outlines a couple of scenarios under which GeoEvent could be used. It helps to solidify the needs of different types of users.

a. A college student opens up GeoEvent looking for something to do for the weekend. When it is opened up the page defaults to the center of Providence with corresponding events. The student then selects the filter type of 'music' and enters in the dorm location. When the search is inputted GeoEvent re-

centers the map around the location of the dorm and displays flags for all events listed by the Providence Journal under the music filter. The student clicks them for details (sees prices, times, locations, and distances from the dorm) and then retrieves directions for the cheapest interesting sounding even that there is. For the student, access to the prices and a quick description is essential).

b. A couple who has recently moved to Providence opens up GeoEvent trying to get an idea of what there is to do in the city. Enters in their address so that the window refocuses on their address. They then zoom out to see more of the city so they can look at a lot of the options. Here, the important features are the centering on a location and *quick* searching every time that the map is resized.

5. **Usage Requirements**
   a. Since this product would be of public interest it would need to be reliable under a high usage.
   b. As in the usage example 4.b above, any longer of a response time than 5-10 seconds would be inadequate since multiple searches or refinements of searches (different types of events, the zoom factor on the map) could be made in short succession.
   c. GeoEvent must be consistent.
      i. If a user searches around a base address and certain type filters and finds an event they like, if they come back an hour later to get directions, they should easily be able to find it with the same search parameters.
      ii. Essentially, searches with the same parameters should return the same results.
6. **Testing**
   Besides testing to ensure that the project responds in the specified amount of time, it is essential that it continues to do so as the user usage increases.
7. **Divisibility**
   a. This project should end up being sufficiently divisible for the projected size group for this year's class. Different elements include
      i. Overall GUI
      ii. Google Maps API interaction
      iii. Parsing of the Providence Journal's Events Page information
      iv. Filtering and searching of the event information once parsed
8. **Specific Challenges to the Project**
   a. It is unclear at the moment how well organized the Providence Journal's Events information is (it is not expected to be highly so). The largest difficulty could lie in deciphering this language so that it is in a useful enough of a format to use.