**E-Spotter**

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1. **Introduction**

Currently, there are many student associations in the University of Puerto Rico at Mayaguez that have different activities every day. Nowadays, the most common way to learn about these activities is by either checking your emails sent by “el cartero” to see if you have received information about the activity or by checking the Facebook page of each corresponding association. This method is not efficient because students receive multiple emails every day and will probably skip over the emails announcing the associations’ activities. The other alternative is by checking Facebook for information about the event but you need to know the association’s name. Our product aims to ease these problems and help the student body by creating a web app that will consolidate and facilitate all of the associations’ announcements of their events and let the students track and discover events that they find attractive all in one place. On a more technical note, we will implement the front-end with HTML5, CSS3 and Javascript, using the view library ReactJS together with Redux and Bootstrap for styling. The server side application is going to be implemented in Node.js and the actual database will be managed with the relational database system called PostgreSQL.

**2.**    **Client App Description**

There will be two ways to sign up in our app, as a regular user or as an official student association. Both signup processes require email verification, in the case of an association account there will be further verification to validate their legitimacy. The regular user will be able to view all of the events that registered associations have at the time being and also give a review of them. These events appear by most viewed, most recent, most interested and closest date depending on the tab that the user is currently viewing. In addition, he may also follow any of the associations in the app, this way the user will be informed immediately when their preferred associations will have a new event or if they have made any updates to their existing events only if they flagged it as “interesting”. As a result, it will appear in a special tab where they can view the events carefully since some events will require payment and attendance confirmation.

On the other side, the associations will take a more active role than that of a regular user since they are the ones who can create and post the events that the regular user will react to. The registered associations will have access to statistics regarding their event such as the number of users that are interested, user payment transactions and the amount of users who confirmed their attendance. Meanwhile they can also keep updating the events if any unpredicted changes occur prior to the activity.

There are various technologies used to create the front-end of an application. We will implement the front-end with HTML5, CSS3 and Javascript, using the view library ReactJS together with Redux and Bootstrap for styling to helps us develop all of these features that our users will interact with.

**3.**    **Server Side Description**

The server side application is going to be implemented in Node.js which will hold all the business logic of the application. It will also provide a RESTful API that will respond to our client’s request. Furthermore, we will be using the relational database system called PostgreSQL to store and manage all the sensitive information of our application. For signup and account confirmation and to support payment in our application a third party API is most likely going to be used such as Paypal and SendGrid. The server will contain ten tables. These tables are Users, Associations, Live Events, Transactions, Statistics, Past Events, Sponsors and Faculties.

Table Descriptions:

1. Users - this table will include all the attributes that identifies the regular user in our system.
2. Associations - this table will include the list of associations that are registered in our system and it will include all the attributes that describe an association and will differentiate it from a regular user.
3. Live Events - this table will include all of the events that are currently “running”.
4. Transactions - this table will include all of the transactions that happened prior the event.
5. Statistics - this table will include the attributes that will be data mined for generating reports about past events and how good the event was.
6. Past Events - this table will list all the events that have been finished to avoid having a huge Event table that has both old data and new data.
7. Sponsors - this table will have the list of companies that sponsor the associations.
8. Faculties - this table will include all of the different faculties that have associations. This will be used to see from which faculty is the association from.
9. Category - this table will include the different event category types.
10. Reviews- this table will include the review that the regular user can post about an association.

**4.** **Division of Labor**

Each team member will work on the backend as well as the front end in each of their respective tasks, to make sure everyone has knowledge of each aspect of the project.

* Mario Orbegoso
  + Association Profile Page
  + Event information Page
  + Association Past Events Page for Data Mining
* Graciany Lebron
  + Regular User Profile Page
  + User Navigation
  + UI Design
* Carlos Ojeda
  + Home Page
  + Payment transactions
  + Sign in Authentication