Senior Project Proposal:

Date Idea Web Application

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1 Motivation

After a few dates with the same person, people typically begin to struggle with thinking of novel things to do and places to go. Further exacerbating this issue is the possibility that trying something new may lead to a poor experience. As a result, people are drawn to the safer alternative, repeating date itineraries.

2 Proposed Solution: Date Idea Web Application

I propose solving this idea dilemma with an online application that allows those in need of a date idea to request customized date itineraries from contributing users (“planners”) for a fee and to possibly view “on-demand” date ideas for free. The goal of this application is to make it easier for users to find new, exciting ideas that are tailored to their preferences while still incentivizing “planners” to provide thoughtful recommendations.

At the outset, this application will be geared towards couples and those beginning to date, but over time the application can be expanded to include recommendations for groups of friends.

3 Technologies Employed

To develop this website, the following technologies will be employed:
MEAN Stack  Mongo DB, Express.js, Angular.js and Node.js

Jasmine or Mocha  JavaScript BDD framework for testing JavaScript code

Karma  JavaScript Test Runner

NPM Modules and JavaScript Libraries

4  Application Features

In building this application, an extensive REST API on an asynchronous backend will need to be constructed. This API will serve as the core of the application, and mostly all of the application’s functionality will be derived from it. The backend will also handle routing and the persistence of user sessions and roles in an effort to secure the API and provide a role-tailored experience.

Features for all users:

• User login.

• User profiles containing preferences, personal information, reviews, timeline of recommended dates, etc.

• K-means clustering of users based on provided preferences and ratings of recommended date itineraries. This will allow for a better user experience by dynamically catering to users’ preferences through the reordering/presentation of content.

• Account linking for couples.

• Request date ideas from “planners.”
  – Rate experience and itinerary.
  – Stretch goal: Payment system.

• List of favorite “planners” [and maybe recommendations and/or places/things to do].

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1I have never used the MEAN Stack, but one of my goals is to make this application scalable. As such, I would like to learn this framework as I develop the website.

2Testing, and more specifically testing with Jasmine or Mocha, will also be a learning experience.
• Stretch goal: Foursquare [Yelp and Facebook] integration. This will allow users to reference their previous reviews of places when creating itineraries, and will also provide a partial source of verification that the person has been to or done what is being recommended.

• Stretch goal: Ability to purchase concierge service to facilitate the making of reservations, etc.

Features for “planners”:

• Set price for recommendations.
• Set number of itinerary revisions.
• Become “elite” or top-rated in categories and places based on check-ins and user reviews.
• Receive and respond to requests.
  – Rate the requesting user.

• Creation and storage of date itineraries.
  – Stretch goal: Add useful information about the place (attire, menu, average age).

5 Deliverables

1. The main deliverable will be a website with a majority of the described API and functionality, tests, and documentation.

2. Learn and have a good understanding of behavioral driven development and the MEAN Stack.

3. Present data from user testing and surveying. Draw conclusions on the viability of the application.