CS 411 Final Project

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| ***Team Name*** | The Avengers |
| ***Members Names (NetIDs)*** | Nathaniel Rupsis (nrupsis2),  Sri Pakanati (srp5), Carl Franklin (carlsf2),  Matthew Morris (mem18) |
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| ***Captain*** | Nathaniel Rupsis (nrupsis2) |
| ***Project Title*** | Drinking Buddies |
| ***Project Summary*** | Using a one or more datasets from Kaggle, and data provided from the Untapped API, our database application aims to connect beer drinkers together, and provide the best Friday night experience possible. |
| ***Project Description*** | * **Description of an application of your choice.** We want to connect beer drinkers together. Our application aims to help drinkers find others with similar favorites, while allowing them to search for their next favorite bar/beer. * **Usefulness.** Our application is useful because it allows users to explore new types of beers and bars. The overall goal is to find new drinking buddies, and to make the most out of a Friday night. Our application is definitely similar to Untapped but offers Machine Learning to predict what types of Bars and Beers you might like to try next. In additional to a recommender system, our application allows you to search for nearby users that also have similar taste in bars & beer and tries to connect you with a drinking buddy to make the most of a Friday night. * **Dataset.**  For our database, we’ll be using at least 3 data sets from Kaggle to compose out data. Our main data set (downloaded from Kaggle) gives us information about Beers, Breweries, Bars/Pubs and Users/Reviews and will be the basis for our application. Depending if we need any additional data, we might integrate the Untapped API to pull in additional data as needed. * **Description of the functionality that you plan to offer.** This is where you talk about how to meet the advanced functionality requirements. There are two types of functions you need to offer:   + **Basic Functions**: The Crud functions for this website will be the ability to create/update/delete/search for reviews for Beers and Bars. In addition to reviews, users will have the ability to favorite a bar and/or beer.   + **Advanced Functions:**     - Recommender System for Bars & Beers based on a user’s current favorite (Bar/Beer), and other factors such as season, location, friend’s favorites, etc.     - Map view of Drinkers/Bars in your area, and the ability to reach out and find/chat with other drinkers with similar taste in Bars/Beers * Advanced Techniques. Use 5 or more advanced techniques from the following list. (You can decide this later)  We’re going to decide later, but we at least want to include   + Indexing   + Parallel query execution   + Constraints |
| ***ER Design*** | ER Diagram Link: https://docs.google.com/drawings/d/148X7QXgVbthGPuvEcEZtcfhaHvgm9YV180K4uLGSjjQ/edit?usp=sharing   * Some of the assumptions we’ve made for the ER diagram are:   + A user can be friends with another user (One-to-one)   + A user can have tried (visited/drank) 0 or more bars/beers   + A user can have 0 or more favorite bars/beers   + A user can only have one review per bar/beer (one-to-many)   + A beer can have a beer type (potentially more than one)   + A beer is brewed by a brewer (One-to-one)   + A bar can serve 1 or more beers   + A bar can have a type (I.e., sports bar, gastropub, etc.)   + A Brewery can potentially be a bar. We’re not completely sure how to handle this case |
| ***Development Plan*** | * The relational schema of your database. Remember to include all keys and dependencies (e.g., functional dependencies) as appropriate. * Describe the final choice of databases and software platforms/languages that you will be using. Check the guidelines under Tools and Resources to see what tools can be used. * Describe where and how you will get data for your application. Do you get it from the Web, some other application, or do you make it up. * Describe the labor division among group members. * A project timeline with milestones. |
| ***System Demo UR***L | Insert the link to the system page. |
| ***Initial Demo Video*** | Insert the link to the initial demo video here  **Initial Demo Video Requirement:** each group needs to demonstrate all of the following using web page or mobile app interface connected with SQL queries. We won't accept the basic queries directly written in cPanel/SQL editor at the demo time.   * Have all the data you need in your database and it should be enough to demo the basic functionality (other requirements for this stage). * Functionality:   + Show how to insert records to the database   + Show at least one query that searches the database and list or print the returned records   + Show how to update records   + Show how to delete records * **NOTE:** This should not be your page login information (insert username/delete etc). We want to see some actual records from your project updates, else you will get no credits. * Talk about your plan for the next stage of the project, including what advanced functions do you plan to support. Having clear idea about advanced functions is very important. Please, make sure you can articulate the challenge clearly.   The initial demo video should be uploaded to MediaSpace at [https://mediaspace.illinois.edu](https://mediaspace.illinois.edu/) by the team captain.  The team captain will need to log in (with your NetID and AD password). Select “Add New” and then “Media Upload” (at the top corner of the page). The team captain will be asked to fill in a form describing the uploaded video. Make sure to:   1. Name the initial demo video as “Project TeamName Initial Demo” 2. Use the tag “CS411-SPRING-2018” 3. Add all group member names to the “team members” field (using “Add” to expand the form for additional members). 4. Check “unlisted” as the type of upload at the bottom (which would allow others to see your video). 5. After uploading, the initial demo video should appear under “My Media”. Make sure to test it. 6. If the team is satisfied, click “Share” beneath the video-playing frame. This gives a shareable link to the initial demo video. |
| ***Project Files*** | Link to all the project files here  Pack all your project files in a zip archive, upload the archive to one of the file hosting services (e.g. Dropbox, Box, Github), and add the link to the archive to your project page. All project teams are also required to share the repository with All TAs. |
| ***Final Demo Video Link*** | Link to the final demo video  Final Demo Video Requirements:   * Introduce your group's project and walk your audience through its goals and features. (We don't expect a professional movie from you, just record a quick screencast with your narration) * Basic Functions:   + Show how to insert/update/delete records to the database (repeat from the Initial Demo)   + Show how to search the database and list or print returned results. You need to show a few different interesting queries over your database. **One of the queries must involve join of multiple (at least 2) tables**. * **Demo Two Advanced Functions**: Give a brief overview of your advanced functions and their link with your project. **You have to be able to clearly define the technical challenge in advanced functions and articulate it during the presentation**. * Explain the **Advanced Techniques** used in the project: Use 5 or more advanced techniques from this list   + Indexing   + Parallel query execution   + Transaction   + Approximate query processing   + Triggers   + Partitioning\Sharding   + Stored procedure   + Prepared Statements   + Compound Statements   + Constraint   + View   The final demo video should be uploaded to MediaSpace at [https://mediaspace.illinois.edu](https://mediaspace.illinois.edu/) by the team captain.  The team captain will need to log in (with your NetID and AD password). Select “Add New” and then “Media Upload” (at the top corner of the page). The team captain will be asked to fill in a form describing the uploaded video. Make sure to:   1. Name the final demo video as “Project TeamName Final Demo” 2. Use the tag “CS411-SPRING-2018” 3. Add all group member names to the “team members” field (using “Add” to expand the form for additional members). 4. Check “unlisted” as the type of upload at the bottom (which would allow others to see your video). 5. After uploading, the final demo video should appear under “My Media”. Make sure to test it. 6. If the team is satisfied, click “Share” beneath the video-playing frame. This gives a shareable link to the final demo video. |