



BarTinder

EC327: Introduction to Software Engineering App Project

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BarTinder Origin

Early in the fall semester of 2015, John and Derek began brainstorming app ideas for the EC327 app project. Together they came up with a rough idea of an app to take in ingredient inputs and output drinks that can be made. After running the idea by Nicole and Zoe, they proceeded to fine tune the idea, and BarTinder became a well crafted idea. We continued brainstorming the strategy of the app, the result being an app that would receive a list of ingredients being provided or already available to them as an input and assist the user by providing a suggestion list of creative alcoholic drinks.

App Description

BarTinder is an easy and fast way for somebody hosting a party to figure out various types of alcoholic drinks that can be made with the provided ingredients. The user selects alcohol and mixers available to them via an Alcohol checklist and Mixers checklist. With one push of the “Mix It Up!” button, the user is brought to another screen displaying the possible drinks that can be made! BarTinder will also suggest drinks that can be made as long as one ingredient is available, so the user is informed of the needed ingredients to make specific drinks.

BarTinder hopes to make planning a party easier and organized, so as to avoid complications of having too much of one ingredient or not having enough. The app BarTinder confirms the user’s age to ensure they meet the legal drinking age requirement of 21, as enforced in the United States.

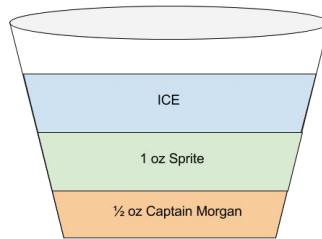
Marketability

The focus customer group of BarTinder is people over the age of 21, and interested in mixing alcoholic drinks, gaining slight exposure to bartending, hosting parties with alcoholic drinks, and attending parties with alcoholic drinks. In a few simple steps, any user may easily check off the available drinks and receive creative suggestions for their next drink endeavor. There is also a visual appeal to BarTinder, playing with simplistic logo designs and color schemes.

Future Developments

As of right now, when the user inputs the alcoholic and non-alcoholic beverages, a list will come up including types of drinks the user can make. Underneath each drink, a list of the ingredients is shown. Some of the drinks include all the ingredients the user has chosen and some include ingredients that if the user got, they could make a whole new drink. In the future, we look to add more recipes, hopefully via a drink database. This would unfortunately change the architecture of our code, but would prove more beneficial in the end. Using a database takes more time to develop and understand, but allows for easier modification if we wished to add more drinks, remove some, or modify the existing list. We also hope to add quantities to each ingredient in the

recipes of the drinks, accompanied by a diagram of a bar-standard glass with visual amounts of each ingredient as displayed below.



A reach goal for BarTinder is to create a unique server for users to join events that a host creates and allow members to message each other what drinks they are bringing. This is an ambitious goal; however it would excel BarTinder into an elite class of Android apps. In addition we envision connecting BarTinder to Facebook as a way to encourage social networking with our app, which would increase our users.

Front-end and Back-end Code

Coming into this project, our team did not have much experience with Java, apart from John who made a connect-4 game called “Connect Catz” in high school. As John had the most experience he handled the lead on the back-end code with Derek supporting him and focusing on the interface. Nicole and Zoe wanted to learn how to use Android Studio and chose to construct the front-end code. From our research and past experience with apps, our team identified certain features we wanted to include in our app. The main features we liked were dialog boxes, the toast feature, and lists. As our app required user input we had to decide if we wanted to have the user type or click their input. We chose to have them click their input in order to avoid dealing with typing errors.

In order to construct the front end code Nicole and Zoe used youtube videos as a primary resource. Using these videos, they were able to create buttons, lists, checkboxes, and link pages through buttons. They handled a bit of back-end code in creating the links between the pages using the buttons. When deciding how to create the lists, we had two options, have the alcohol and mixer buttons take the user to another page where they would select their ingredients from a list. Then the user would have to click a button to take them back to the selection page. The second option was to have dialog boxes pop-up when the alcohol and mixer buttons were clicked. These dialog boxes would have the ingredients in a list for the user to select. We chose the dialog box design because it looked the most elegant and required the least amount of steps for the user. Another feature we wanted to include was an age-verification, to ensure that our user was legally able to consume alcohol.

With the Back End, most of the work was done in the results page. Some code was added to the classes developed by the UI team to help store the values selected by the user. This was then gathered and passed to the Results activity. All the ingredients selected by the user are combined into a singular List. The recipes are then all converted into Lists and combined into a List of Lists. An enhanced for loop then goes through the list of ingredients and compares them to the requirements of each recipe. If the user has all the ingredients for a drink, it's sent to the results page. If they have only some, then it is sent to the results page with a "Suggestion" tag. These are combined into a List of Maps for easy output to the list. A SimpleAdapater was developed to work with our data structure and the data is pushed to the UI.

After designing a working app, the team came together and made choices about the aesthetics of the app. We decided to go for a whimsical vibe in order to make the app user friendly. Derek used paint to design the shot glass BarTinder design featured on the main page.

Link to our app via GitHub: <https://github.com/dtkenyon/BarTinder.git>

Download today!