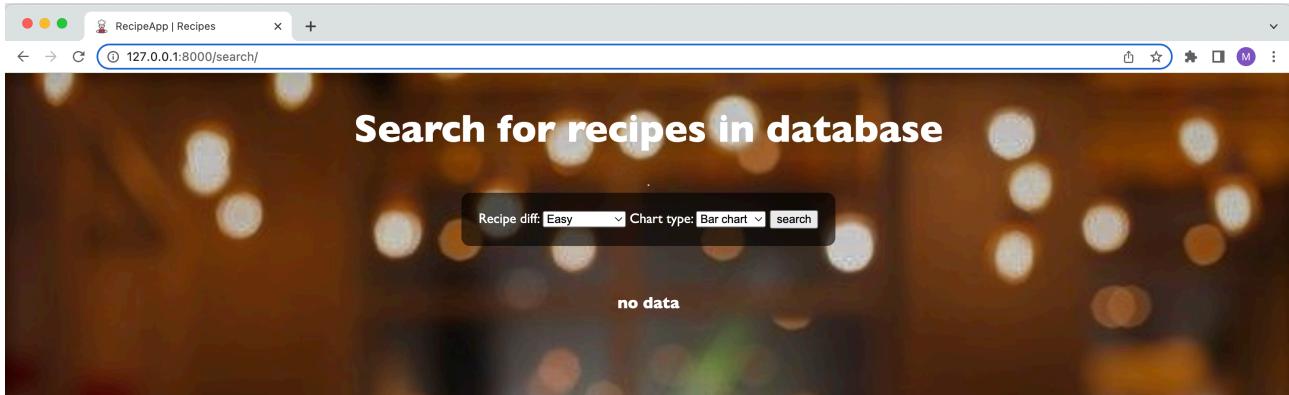


I am adding a new feature to this Recipe App – Search Using Recipe difficulty level. Using this feature, users should be able to choose the difficulty level of recipes from the database and the type of chart on which they want the data to be displayed.



According to the search criteria entered by the user (recipe difficulty and chart type), the app should extract the recipes needed from the database as QuerySet, convert the QuerySet to pandas DataFrame, and display the results as a table.

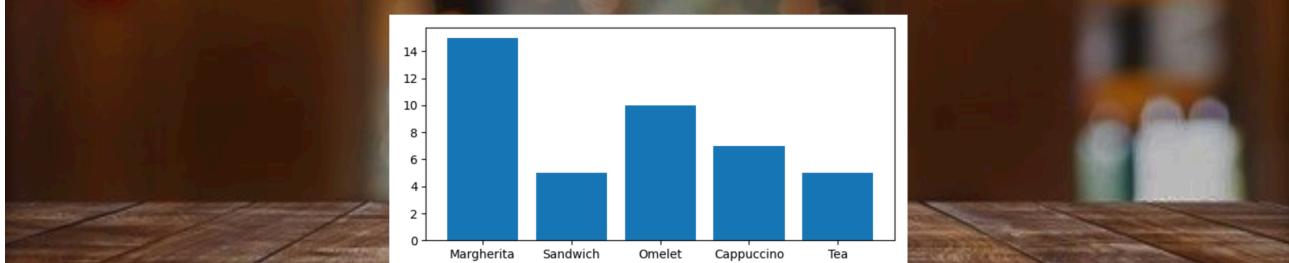
ID	Name	Cooking Time	Ingredients	Description	Picture
0 1	Margherita	15.0	dough, tomato, mozzarella, basil, olive oil	Margherita pizza, a classic Italian delight, features a thin crust topped with tangy tomato sauce, creamy mozzarella cheese, and aromatic fresh basil. Baked to perfection, it delivers a harmonious balance of flavors and textures. With its simplicity and quality ingredients, Margherita pizza exemplifies the essence of traditional Italian cuisine.	recipes/margherita.png
1 2	Sandwich	5.0	bread, ham, cheese, lettuce, tomato, mayonnaise	A classic sandwich made with your choice of deli meat, cheese, fresh veggies, and condiments, all layered between slices of bread. Quick and versatile, this satisfying creation is perfect for a quick lunch or on-the-go meal. Customize with your favorite ingredients for a tasty and convenient bite.	recipes/sandwich.png
2 3	Omelet	10.0	eggs, butter, vegetables, cheese	Quick and versatile, an omelet is a classic dish made by whisking eggs, adding fillings like cheese and veggies, then folding it over. Cooked to perfection, it's a satisfying and customizable option for breakfast, brunch, or any meal. Enjoy the fluffy goodness in just a matter of minutes!	recipes/omelet.png
3 4	Cappuccino	7.0	coffee, milk, sugar, cinnamon	Cappuccino, a classic coffee beverage, combines rich espresso with frothed milk for a creamy and indulgent treat. With a perfect balance of bold flavors and velvety texture, this popular drink is enjoyed worldwide. Sip and savor the comforting warmth and delightful aroma of a homemade cappuccino.	recipes/cappuccino.png
4 5	Tea	5.0	tea leaves, water, sugar	A soothing cup of tea is a timeless beverage enjoyed worldwide. Steeped in hot water, tea leaves or bags release their flavors and aromas, offering a moment of relaxation. Customize with sweeteners, milk, or lemon to your liking. Indulge in the simple pleasure of a warm and comforting homemade tea.	recipes/tea.png

In the above image, I have chosen the ‘Easy’ difficulty level on the form, and the app displayed three recipes with ‘intermediate’ cooking difficulties.

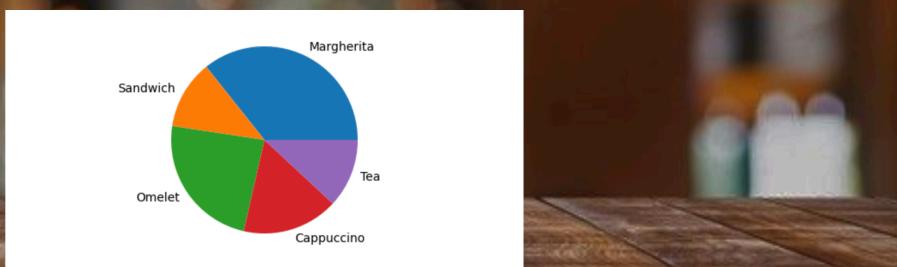
## Data Analysis

The app also gives data visualization on the search page using ‘matplotlib’ library. According to the chart type chosen by the user, it displays a chart of the recipes searched names against their respective cooking times. The following images are the charts of recipes on the database with ‘intermediate’ difficulty and their cooking times compared.

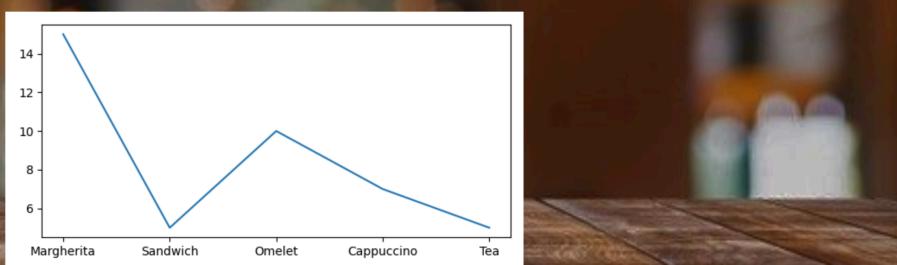
3 4	Cappuccino	7.0	coffee, milk, sugar, cinnamon	Cappuccino, a classic coffee beverage, combines rich espresso with frothed milk for a creamy and indulgent treat. With a perfect balance of bold flavors and velvety texture, this popular drink is enjoyed worldwide. Sip and savor the comforting warmth and delightful aroma of a homemade cappuccino.	recipes/cappuccino.png
4 5	Tea	5.0	tea leaves, water, sugar	A soothing cup of tea is a timeless beverage enjoyed worldwide. Steeped in hot water, tea leaves or bags release their flavors and aromas, offering a moment of relaxation. Customize with sweeteners, milk, or lemon to your liking. Indulge in the simple pleasure of a warm and comforting homemade tea.	recipes/tea.png



			cheese	perfection, it's a satisfying and customizable option for breakfast, brunch, or any meal. Enjoy the fluffy goodness in just a matter of minutes! Cappuccino, a classic coffee beverage, combines rich espresso with frothed milk for a creamy and indulgent treat. With a perfect balance of bold flavors and velvety texture, this popular drink is enjoyed worldwide. Sip and savor the comforting warmth and delightful aroma of a homemade cappuccino.	recipes/cappuccino.png
3	4	Cappuccino	7.0	coffee, milk, sugar, cinnamon	recipes/tea.png
4	5	Tea	5.0	tea leaves, water, sugar	



			cheese	perfection, it's a satisfying and customizable option for breakfast, brunch, or any meal. Enjoy the fluffy goodness in just a matter of minutes! Cappuccino, a classic coffee beverage, combines rich espresso with frothed milk for a creamy and indulgent treat. With a perfect balance of bold flavors and velvety texture, this popular drink is enjoyed worldwide. Sip and savor the comforting warmth and delightful aroma of a homemade cappuccino.	recipes/cappuccino.png
3	4	Cappuccino	7.0	coffee, milk, sugar, cinnamon	recipes/tea.png
4	5	Tea	5.0	tea leaves, water, sugar	



## User Flow

The user flow consists of the following steps:

- Login Screen:** The user logs in to the Recipe App.
- Recipe Details:** The user views the details for a specific recipe, such as "Sandwich".
- Search Results:** The user performs a search query, resulting in a list of recipes like Margherita, Sandwich, Omelet, Cappuccino, and Tea, each with a cooking time and difficulty rating.
- Logout Confirmation:** The user successfully logs out of the app.