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**ALY6040 : DATA MINING APPLICATIONS**

**Module 5 – Technique practice**

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1. **Introduction:-**

This code contains a Streamlit application designed to help a wine firm deal with typical problems related to wine choosing. Customers may quickly locate wines that suit their tastes thanks to the application's user-friendly layout. The code makes it easier to create an interactive online application by utilizing the Streamlit library, which improves user experience and efficiency when choosing wine.

1. **Synopsis of the Code:**

* The code makes use of Streamlit, a framework designed to make building online apps simple.
* The loaded wine dataset (merged\_df) probably includes important features like brand, ratings, and other pertinent information.
* A UI built using Streamlit has a sidebar with a minimum rating slider and a dropdown menu for selecting brands.
* Based on user choices, the algorithm filters the dataset to produce a more curated list of wines that satisfy the selected brand and minimum rating requirements.
* On the main page of the program, the filtered results are presented in an easily readable way.

1. **How it Addresses the Wine Company's Problems:**

* **User-Friendly Interface:** The Streamlit program makes it easier to navigate through large wine collections by providing an intuitive interface.
* **Effective Filtering:** By deciding on a certain brand and establishing a minimum rating, users may rapidly reduce the number of possibilities available to them, which speeds up the decision-making process.
* **Improved Decision-Making:** The program helps users make decisions more quickly and intelligently by providing a short list of wines that match their tastes.

1. **The functions of the product are as follows:**

* **Simplified Wine Selection:** Using brand loyalty and required quality levels (minimum rating), users may locate wines quickly and easily with the help of this application.
* **Customized Search Criteria:** Users may design their own search parameters to get a personalized wine choosing experience based on their preferred brands and quality standards.
* **Better Customer Experience:** By streamlining the wine selection process and making it more fun and efficient, the application improves the entire customer experience.

1. **Process on how to use it:-**

The product is a wine finding application that uses Streamlit and lets users search and filter wines by brand and minimum rating. It offers clients a simple and eye-catching method of finding wines that fit their requirements. The product's ultimate goal is to increase customer satisfaction and engagement by improving the user experience and making the process of selecting the ideal wine easier.

1. **Examine the Sidebar:**

* The wine finder interface will appear in a web browser window after the application has started.
* There are two filters on the sidebar:
* Select a certain wine brand using the drop-down menu.
* Minimum Rating Slider: Use the slider to choose the wines' minimum rating.

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1. **View the Filtered Outcomes:**

* The program constantly filters the dataset when you choose a brand and establish a minimum rating.
* The application's home screen shows the filtered wine list.

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1. **Examine the Wine List Filtered:**

* Examine the curated wine list, containing wines that correspond with the chosen brand and fulfill or surpass the designated minimum rating.

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1. **Repetition or Filter Adjustment:**

* The procedure can be repeated with alternative brand and rating choices.
* Once you identify the wines that most closely match your tastes, you may refine the filters.

1. **Delight in a Simplified Wine Selection:**

* With the help of this application, you may quickly and easily pick wines depending on your preferred brands and quality standards, streamlining the wine choosing process.
* You may improve your wine selecting experience by using the Streamlit wine discovery program effectively by following these steps.

**References:-**

*Jupyter/ipython Notebook quick start guide¶*. Jupyter/IPython Notebook Quick Start Guide Jupyter/IPython Notebook Quick Start Guide 0.1 documentation. (n.d.). <https://jupyter-notebook-beginner-guide.readthedocs.io/en/latest/>

PyCoach, T. (2021, June 10). *12 Jupyter notebook extensions that will make your life easier*. Medium. <https://towardsdatascience.com/12-jupyter-notebook-extensions-that-will-make-your-life-easier-e0aae0bd181>