

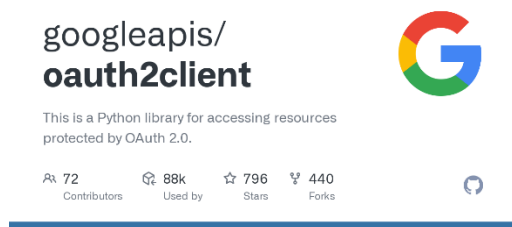
Data Sense

The purpose of this project is to develop a Python app, named Data Sense, that can analyze the sales data of the food industry stored in a Remote Database. The app provides both visual and numeric analysis of the data and offers a GUI interface for users to access and analyze the data directly from the Remote Database in fraction of time.

Libraries and APIs Used

The app utilizes the following libraries and APIs:

- ***oauth2client*** module to authorize the user to the Google Database.



- ***Google Drive API*** and ***Google Sheets API*** to create a link between the user and the Google Sheet.

Google APIs

- ***gsread*** module to access the sales data from the Remote Database.



- ***NumPy*** for performing numerical analysis on the data.



- ***Matplotlib*** for creating graphs and visualizations of the data.



- *requests* library, *Python Image Library (PIL)*, and *Input/Output(io)* library for GUI enhancement and data handling.



- *SecuriPy*, a library developed by the app's developer, for security-related functionalities.

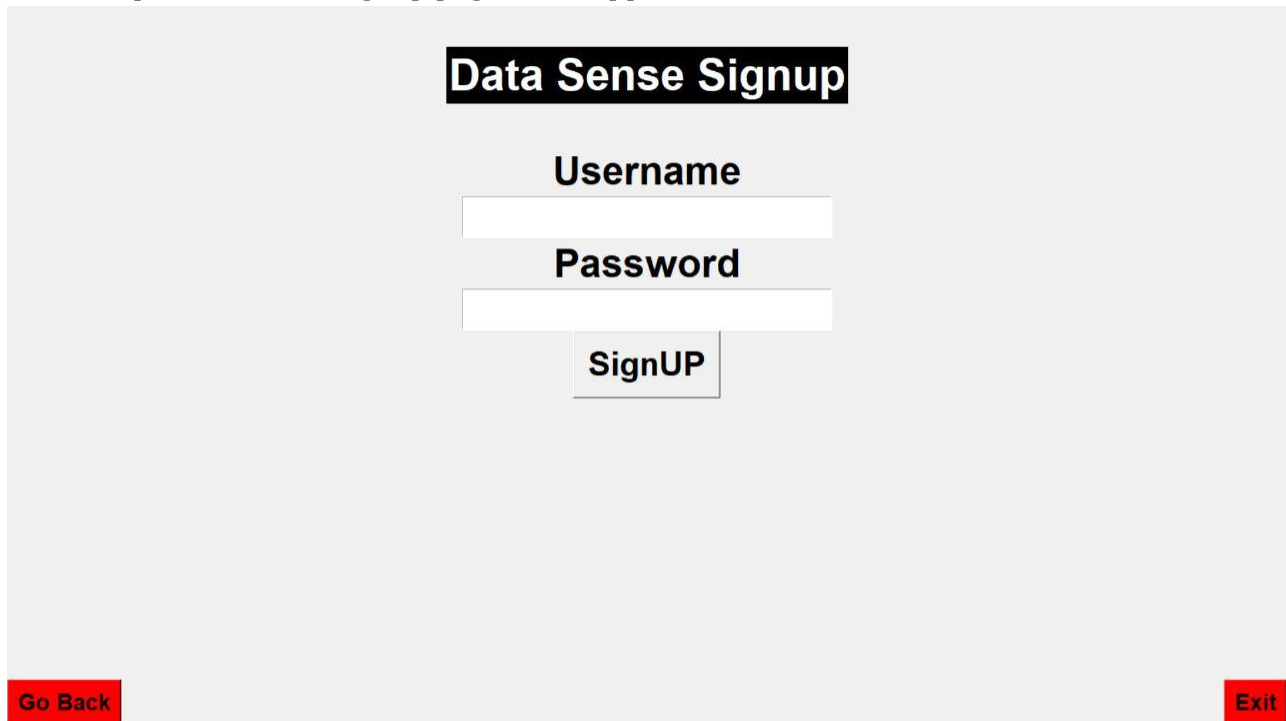
Features Offered

1. **Accountability** for safe and secure access to big data. The app offers a safe and secure account management system with encrypted credential storage to security.

Here is a preview of the login page of the app.

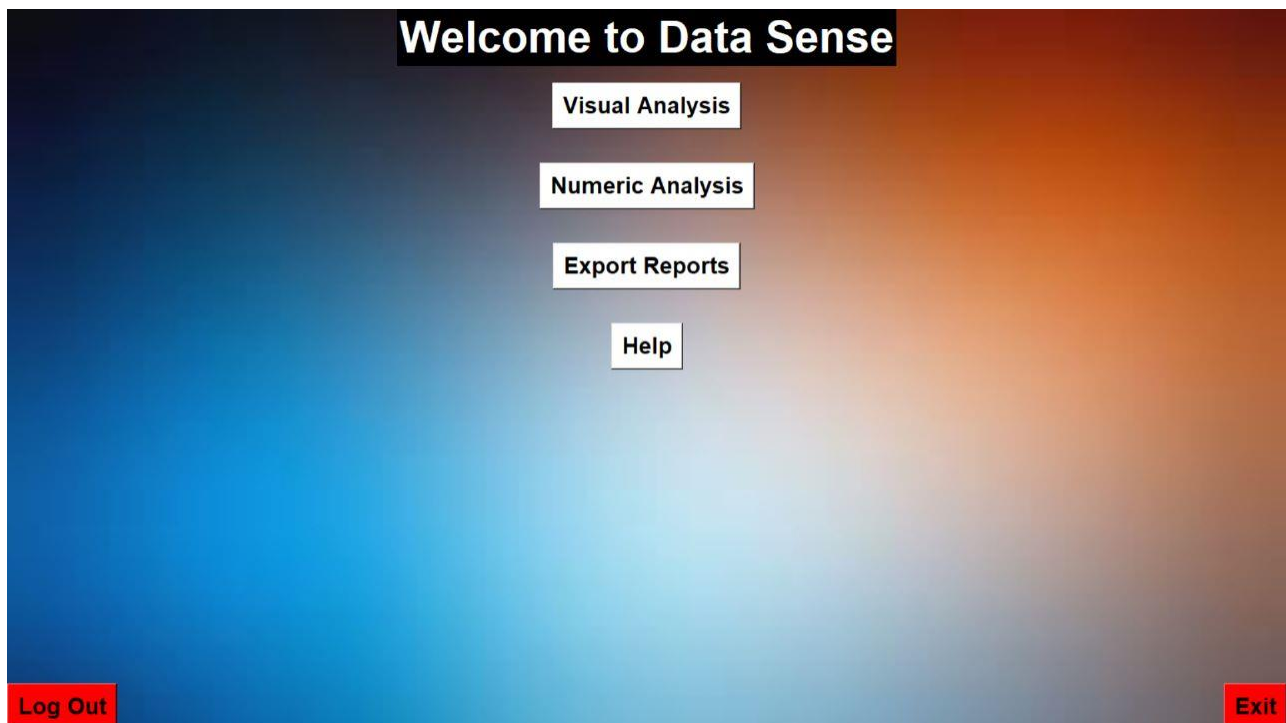
A preview of the 'Data Sense Login' page. The page has a light gray background. At the top center is a black rectangular box with the text 'Data Sense Login' in white. Below this are two white input fields. The first field is labeled 'Username' and the second is labeled 'Password'. Below the password field is a white 'Login' button. Below the 'Login' button is a blue button with the text 'Sign UP Instead'. In the bottom right corner of the page is a red button with the text 'Exit' in white.

Here is a preview of the signup page of the app.



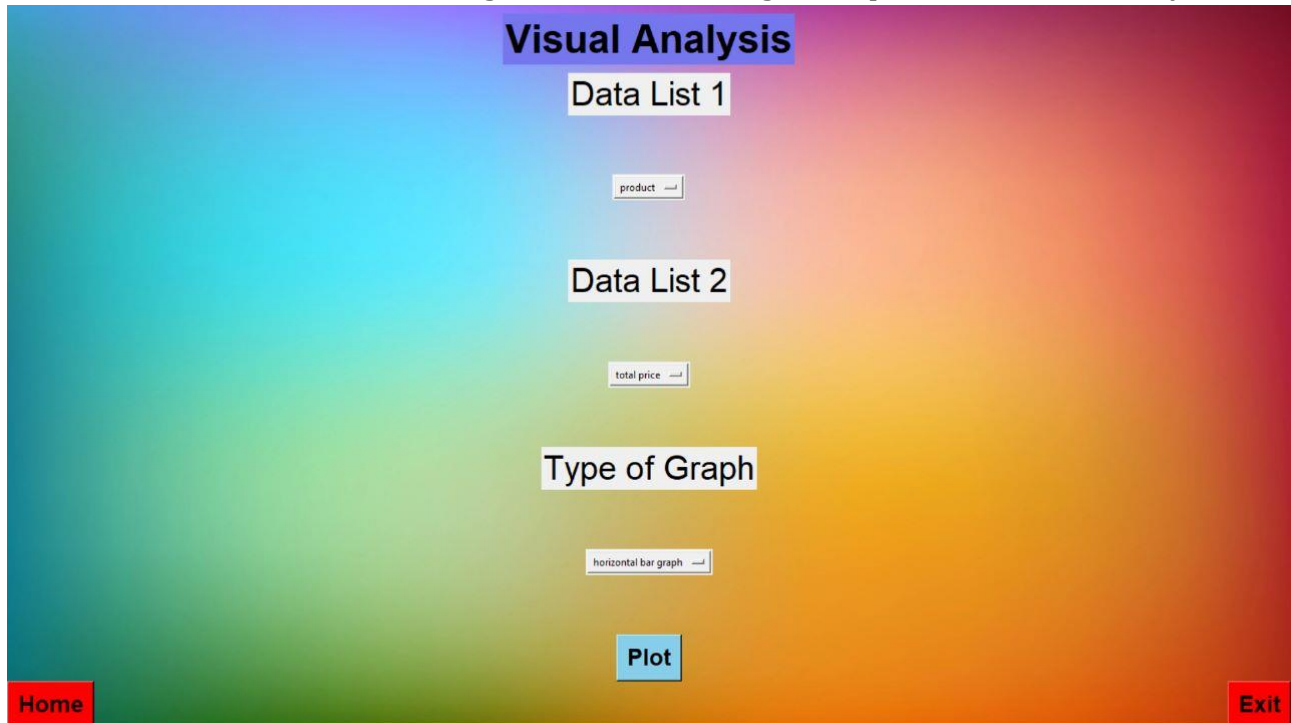
The image shows a web page titled "Data Sense Signup". It features a central form with two input fields: "Username" and "Password". Below the password field is a "SignUP" button. At the bottom left, there is a red button labeled "Go Back", and at the bottom right, there is a red button labeled "Exit". The background is a light gray.

2. **GUI interface** for accessing and analyzing sales data: Users can access the sales data directly from the Remote Database through a GUI interface and choose between visual or numeric analysis of the data.

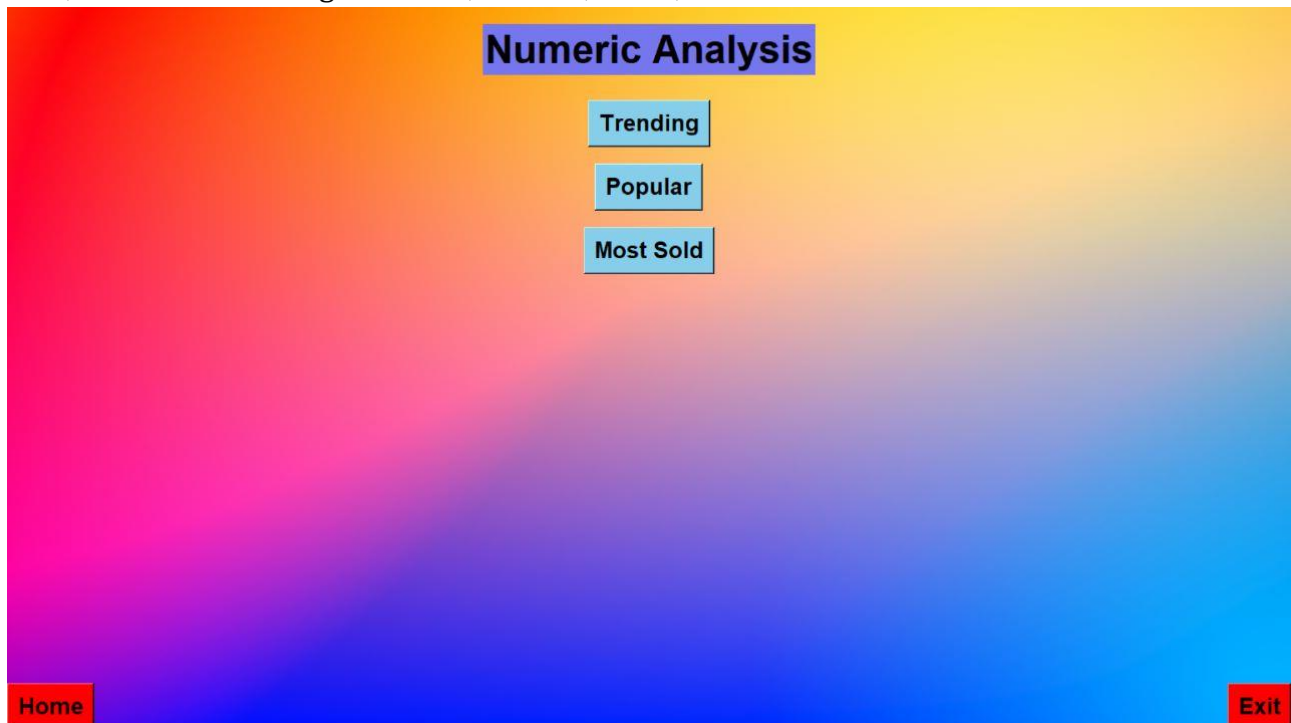


The image shows a web page titled "Welcome to Data Sense". It features a central menu with four buttons: "Visual Analysis", "Numeric Analysis", "Export Reports", and "Help". At the bottom left, there is a red button labeled "Log Out", and at the bottom right, there is a red button labeled "Exit". The background is a gradient of blue and orange.

3. **Visual analysis** of sales data: The app uses **Matplotlib** to create graphs and visualizations of the sales data, such as bar charts, histograms, etc., according to the parameters selected by the user.



4. **Numeric analysis** of sales data: The app uses **NumPy** to perform numerical analysis of the sales data, such as calculating the mean, median, mode, or standard deviation of the data.



5. **Automated** Suggestions of Analysis: The app is integrated with a system that provide suggestions based on the analysis of the sales data to enhance production and sales.

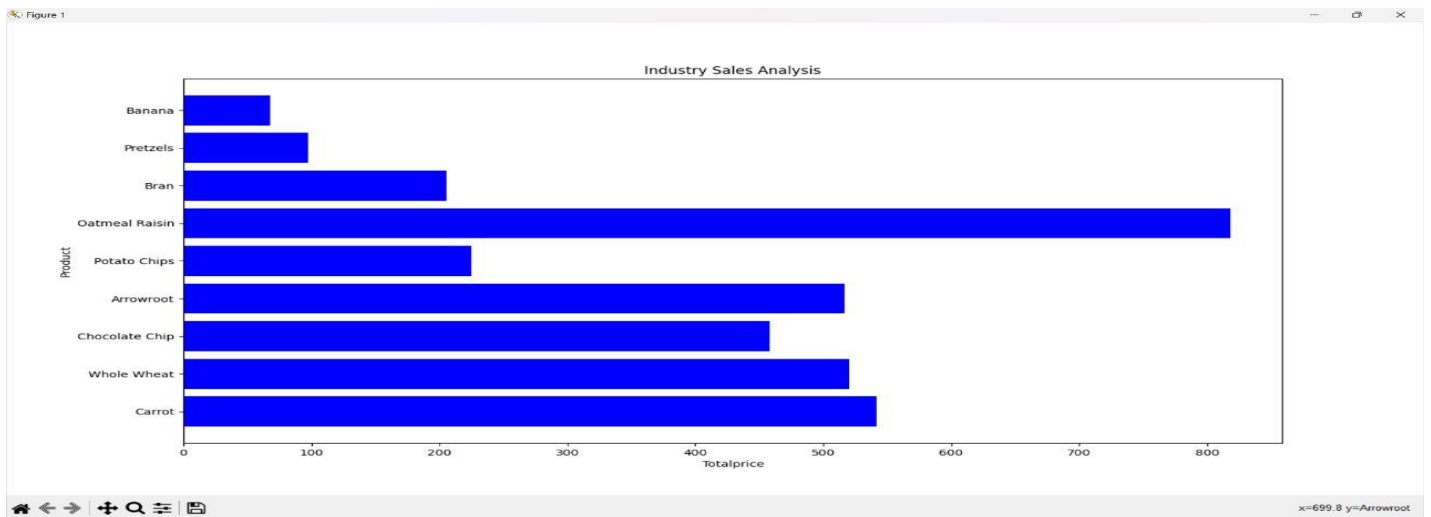
6. **Data export:** The app allows users to export the analyzed data in various formats, such as:
- Graphs: **JPEG, PNG.**
 - Selected Data: **CSV, ANY SPREADSHEET.**



The expected outcomes may be one of the following:

1. A graph plotted based on the selected parameters.
2. Numeric data corresponding to the analysis performed.
3. Quick suggestions based on the analysis.

Example Visual Output is



Users can enhance their work culture into the sales data of their industry with latest future technologies.

Overall, the Data Sense app provides a user-friendly interface for accessing and analyzing sales data stored in the Remote Database and offers a range of analytical tools for visualizing and interpreting the data.

Explore & Enjoy!!!!