Sugarcane Production Analysis

Define Problem/Problem Understanding

Define Problem Statement: Visualising Sugarcane Production Analysis

Business Requirements : This project is useful from the perspective of countries who have highly fertile soil which is suitable for producing sugarcane. There are many countries in the South America region and the Asia region which have high production of sugarcane. This project is useful for business owners who want to establish mills for sugar production. The ultimate goal is to gain insights and improve performance through data visualization techniques.

Literature Survey : A literature survey for the depression analysis would involve researching and reviewing previous studies, articles, and reports on the topic. This could include information on the methods and techniques used for sugarcane production, as well as the results and conclusions of these studies. Some potential areas of focus for a literature survey on depression analysis could include: Risk management, which involves identifying, assessing, and mitigating the various risks facing a country, such as defense risk, market risk, and operational risk. The reasons that affect the production of sugarcane.

Social/Business Impact : Social Impact: This project throws light on the regions which have high production of sugarcane. The factors which can influence the production and yield of sugarcane. Business Model/Impact: The business impact of this project is to the countries that are cultivating sugarcane on a large scale. This can improve the potential of the countries with high yield to attract the investors.

Data Collection and Extraction from Database

Data Collection : sugarcane.csv dataset is downloaded for making visualizations

**Column Description of the Dataset**:

 1. Continent: Name of the Continent

2. Country: Country Name

3. Production: Production of sugarcane in tons.

4. Production per person: Production per person in tons

5. Acreage: Area for sugarcane cultivation in hectares

6. Yield: The production per area f land (kg / hectare)

**Storing Data in DB and Perform SQL Operations:**
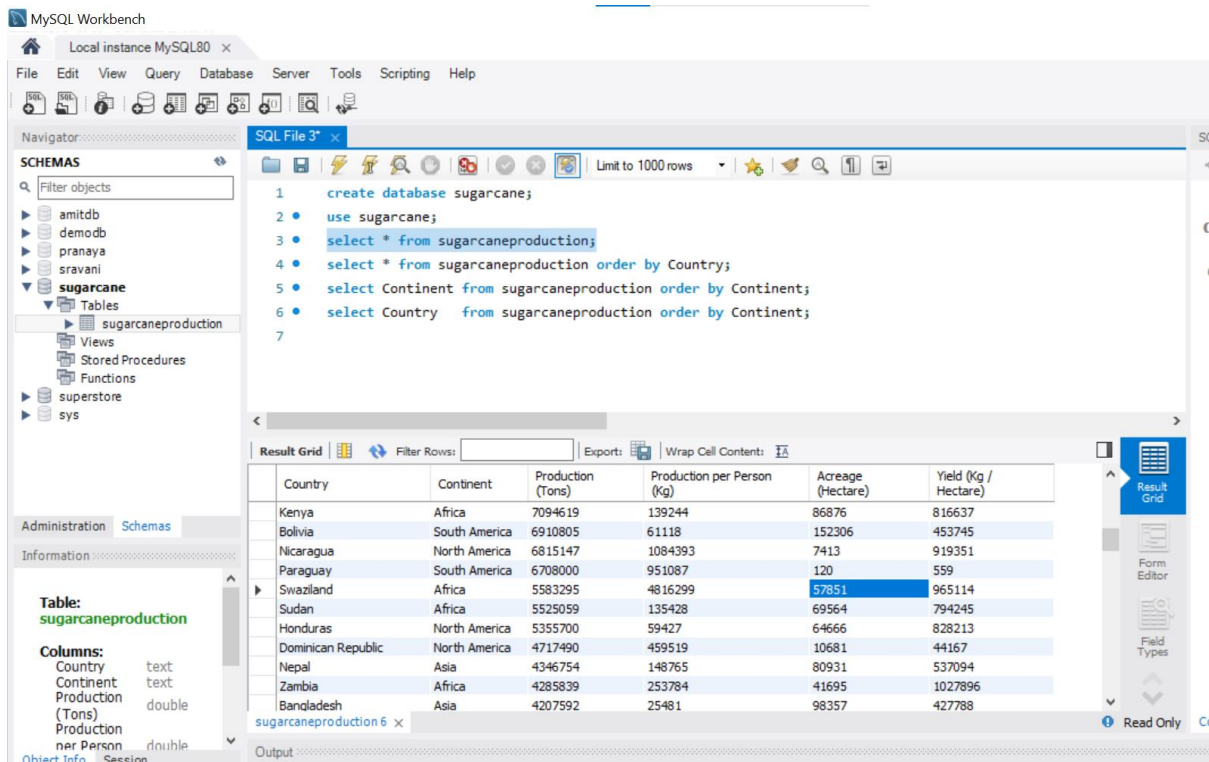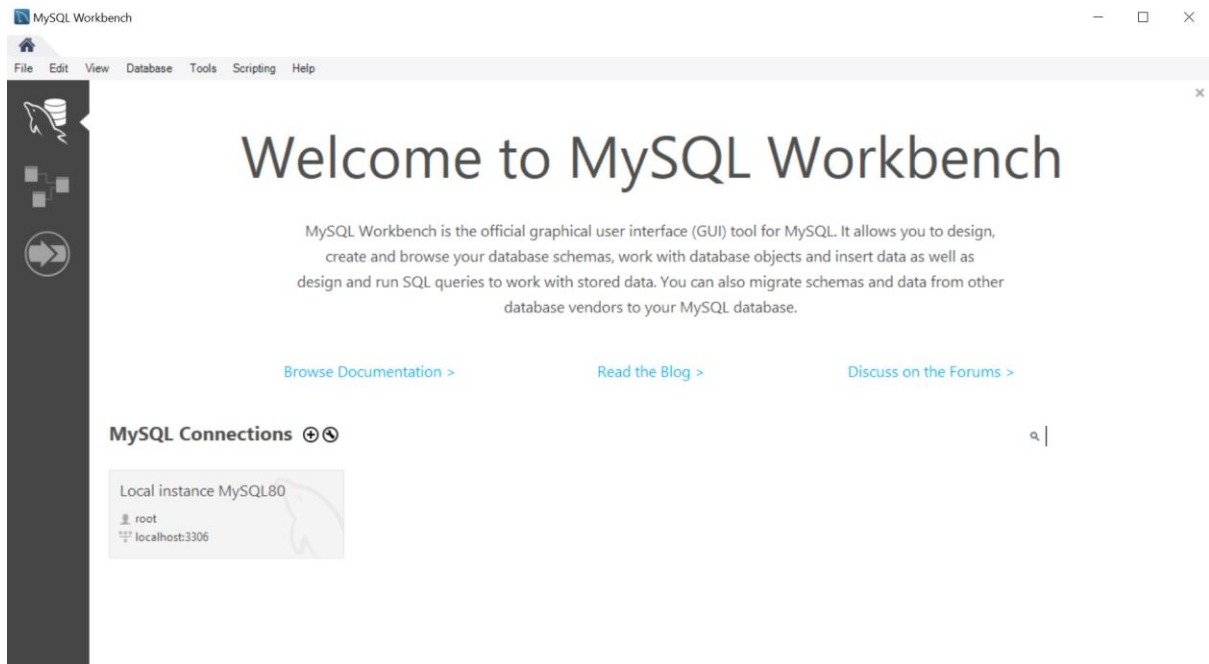
Connect DB with Tableau:
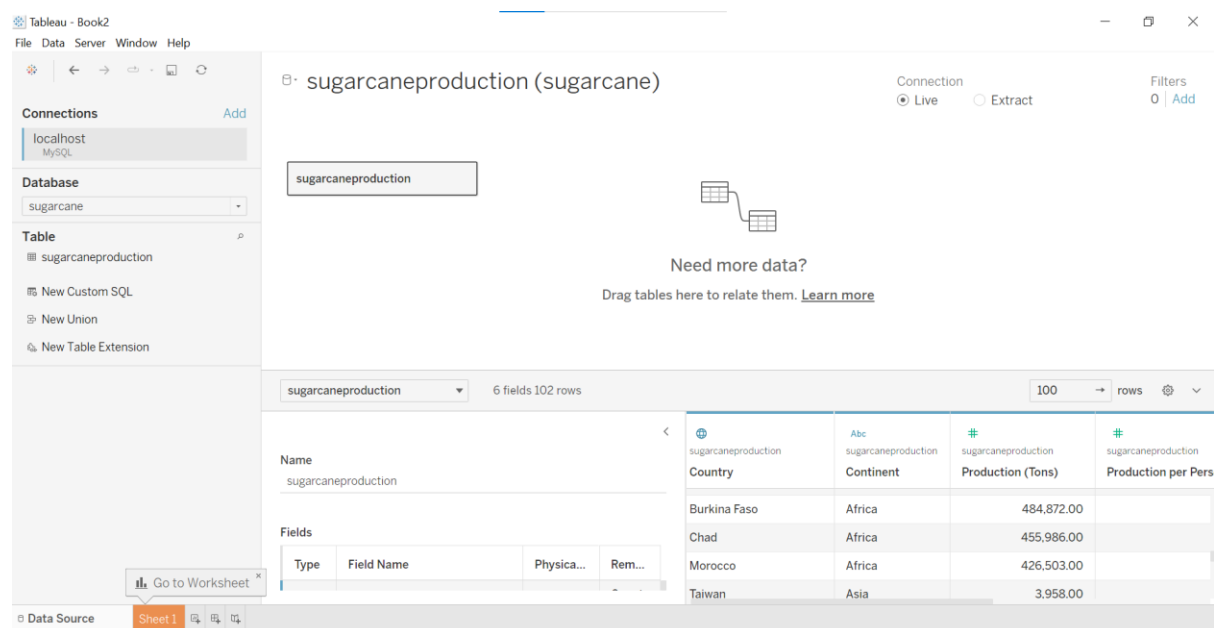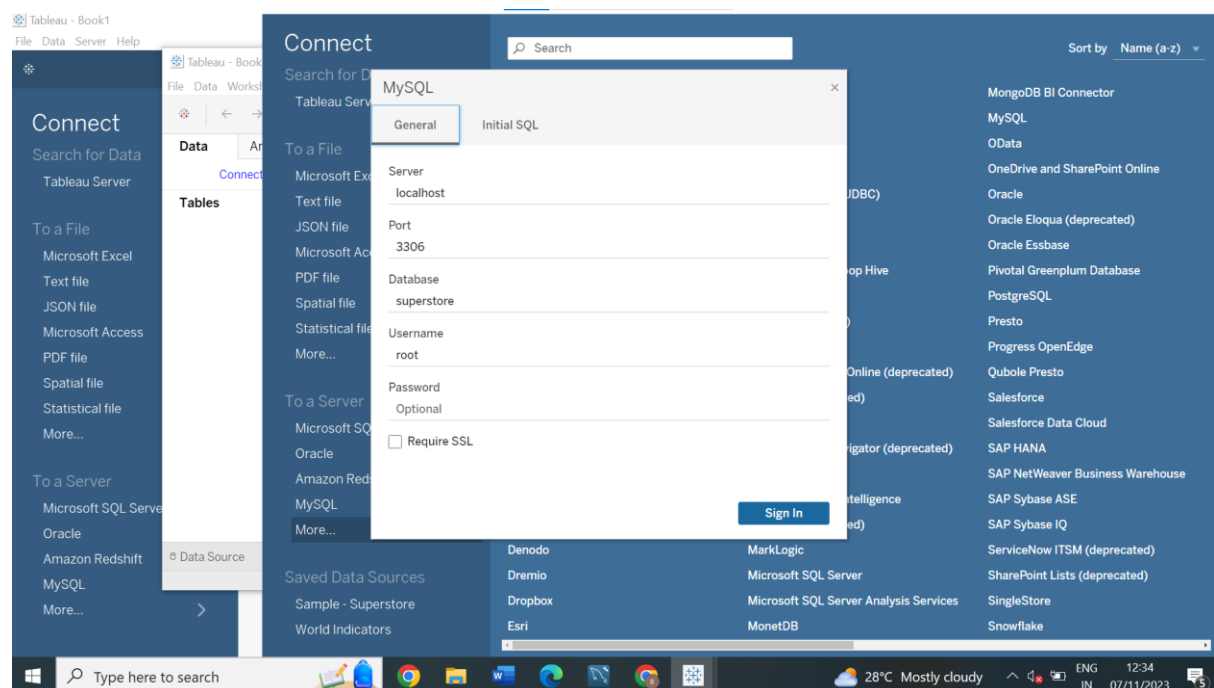
Data Preparation :

Preparing the data for visualization involves cleaning the data to remove irrelevant or missing data, transforming the data into a format that can be easily visualized, exploring the data to identify patterns and trends, filtering the data to focus on specific subsets of data, preparing the data for visualization software, and ensuring the data is accurate and complete. This process helps to make the data easily understandable and ready for creating visualizations to gain insights into the performance and efficiency

Data Visualization :
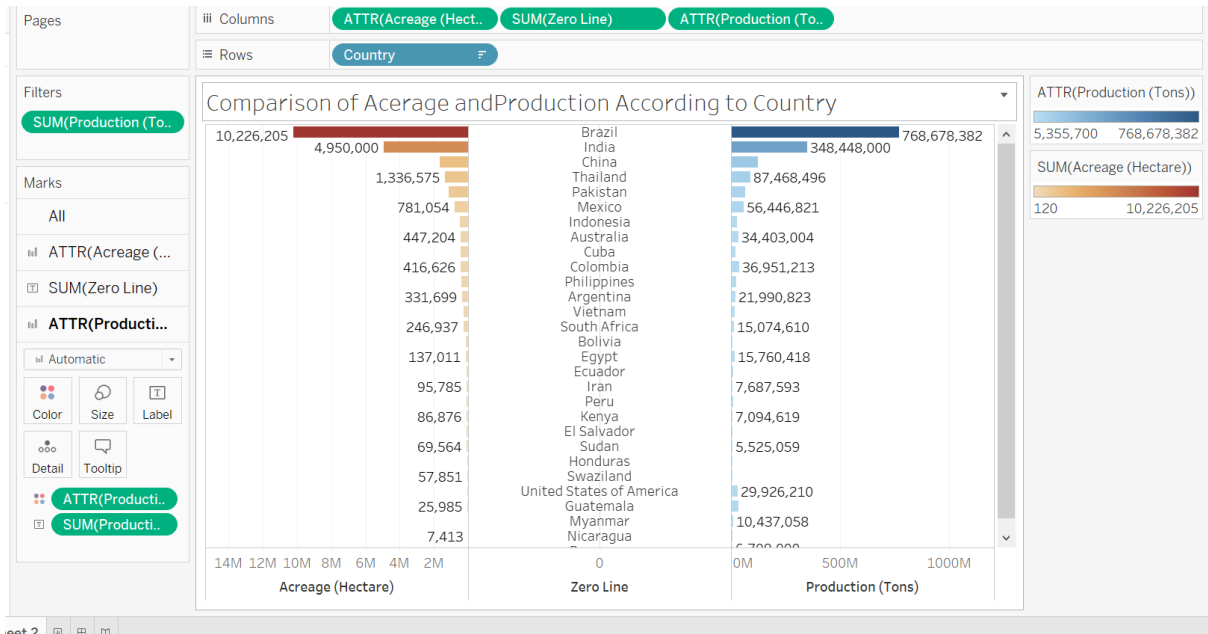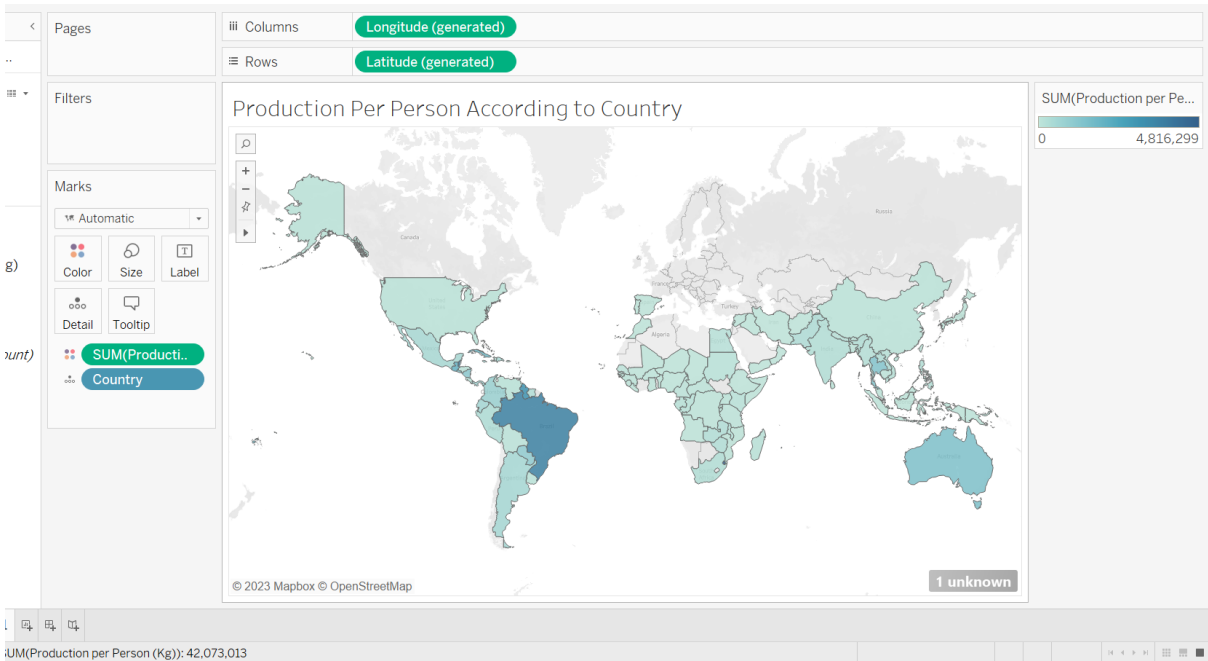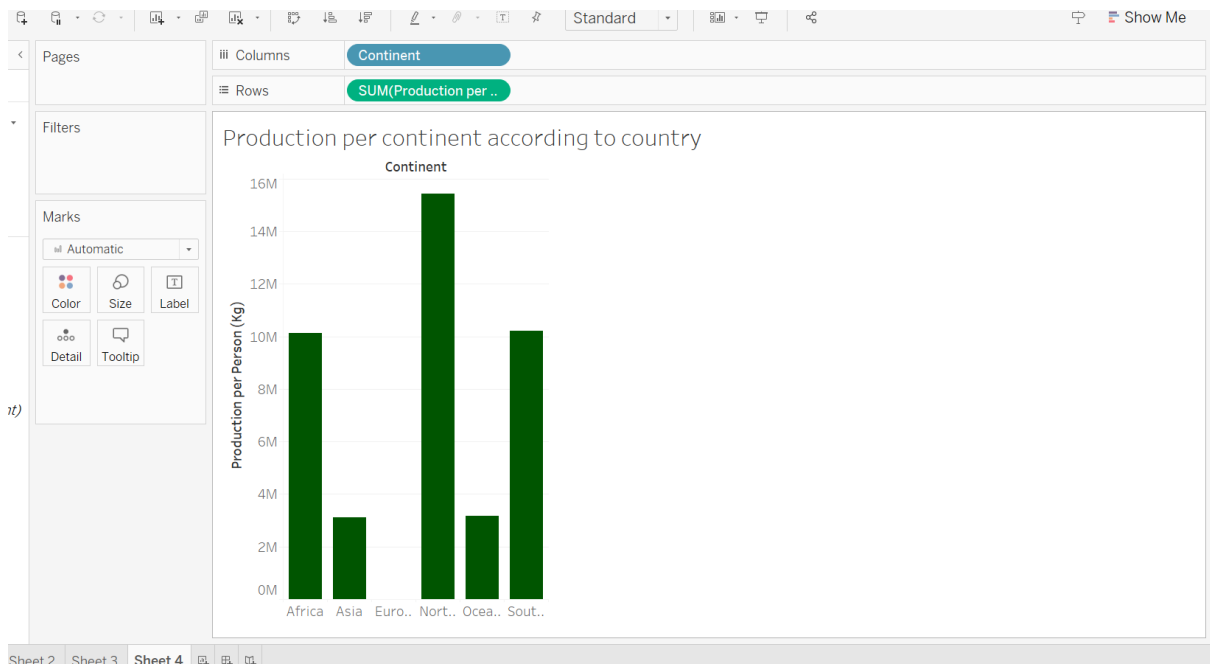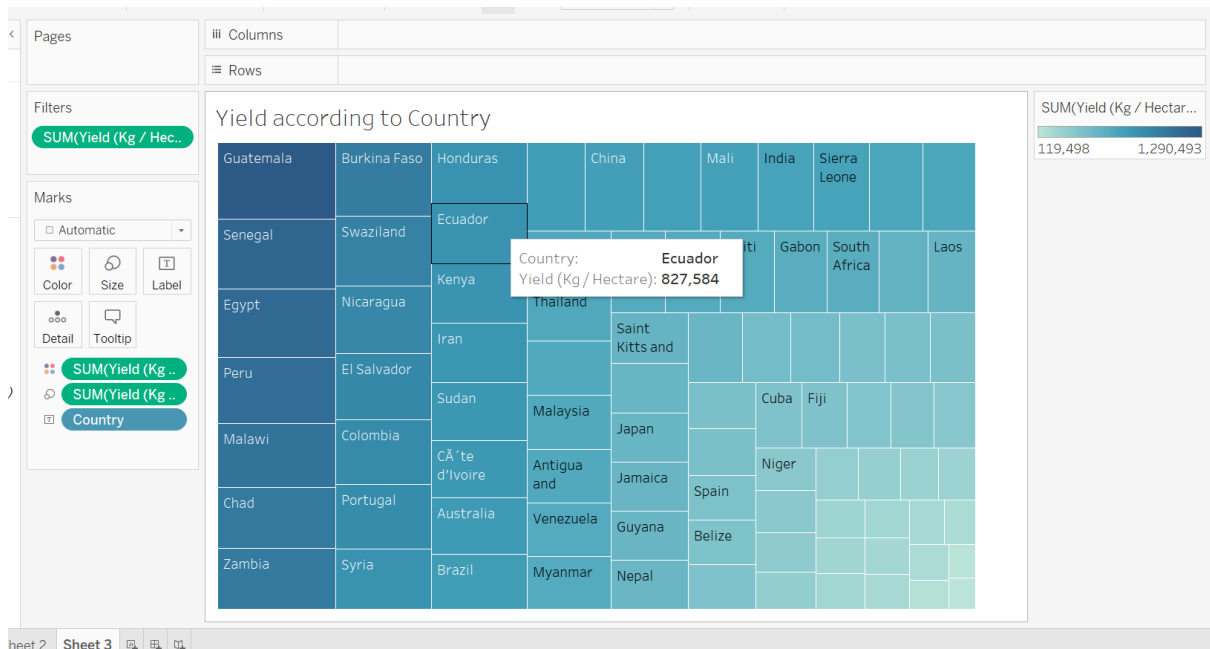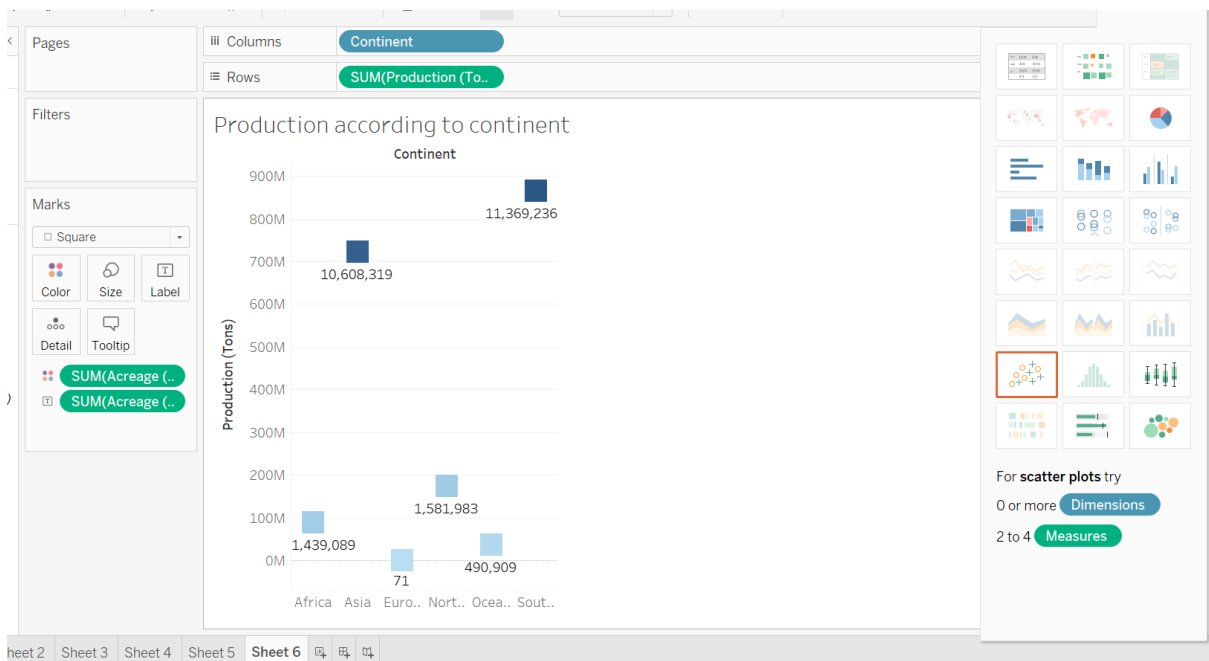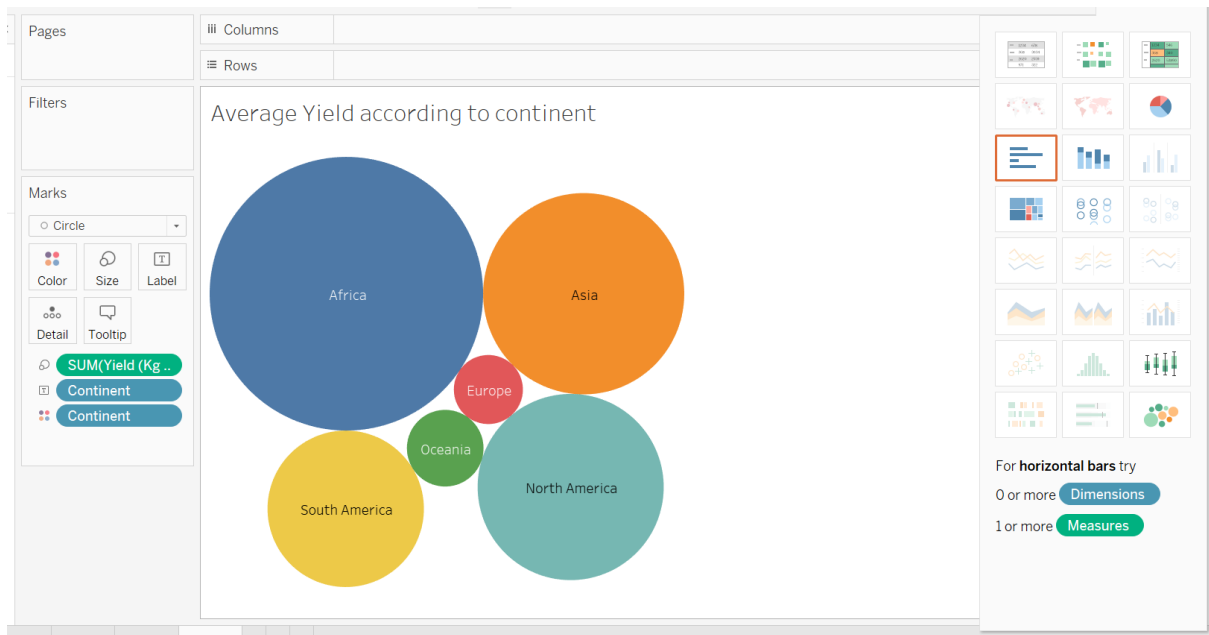
Dashboard :

A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. Dashboards are often used to provide real-time monitoring and analysis of data and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, healthcare, and many other industries. They can be used to track key performance indicators (KPIs), monitor performance metrics, and display data in the form of charts, graphs, and tables.

Responsive and Design of Dashboard:

Sugarcane Analysis according to continents

Production per Person sum for continents

Continent
- Africa
- Asia
- Europe
- North Ameri..
- Oceania
- South Ameri..

Acreage (Hectar..
71 — 11M

Continent

Production per Person (Kg)
- 15M
- 10M
- 5M
- 0M

Africa   Asia   Europe   North Ameri..   Oceania   South Ameri..

Average Yield according to continent

Africa   Asia

Production according to continent

Continent

Production (To..
- 500M
- 0M

11,369,236
10,608,319
1,439,089   71   490,909

Africa   Asia   Europe   North Am..   Oceania   South Am..

Story :

A data story is a way of presenting data and analysis in a narrative format, intending to make the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and analysis logically and systematically, and a conclusion that summarizes the key findings and highlights their implications. Data stories can be told using a variety of mediums, such as reports, presentations, interactive visualizations, and videos.
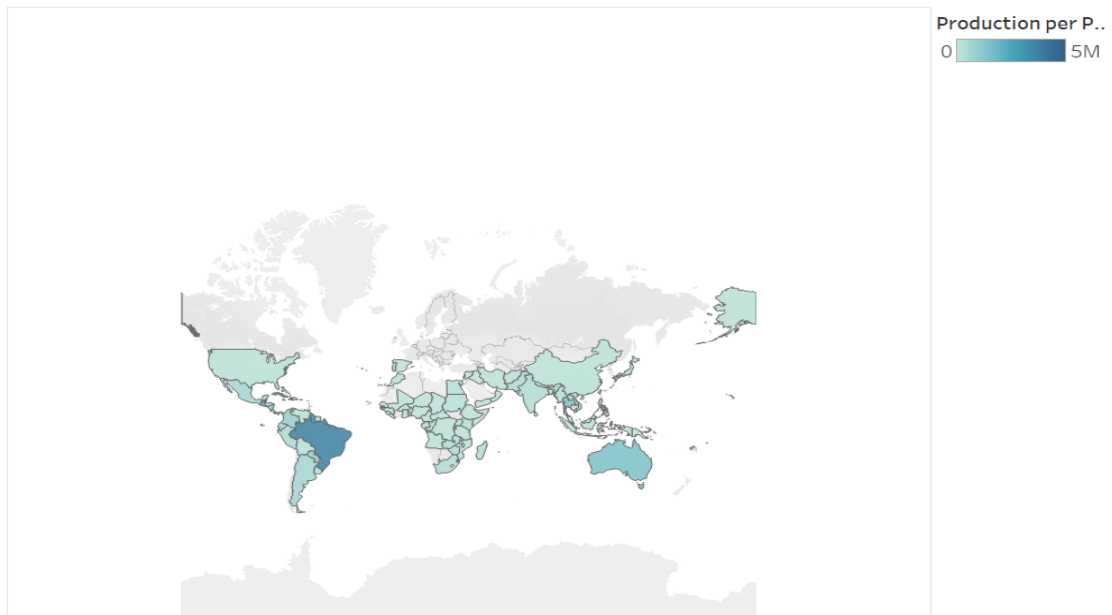
No of Scenes of Story :

The number of scenes in a storyboard for a data visualization analysis of the performance of banks will depend on the complexity of the analysis and the specific insights that are trying to be conveyed. A storyboard is a visual representation of the data analysis process and it breaks down the analysis into a series of steps or scenes.
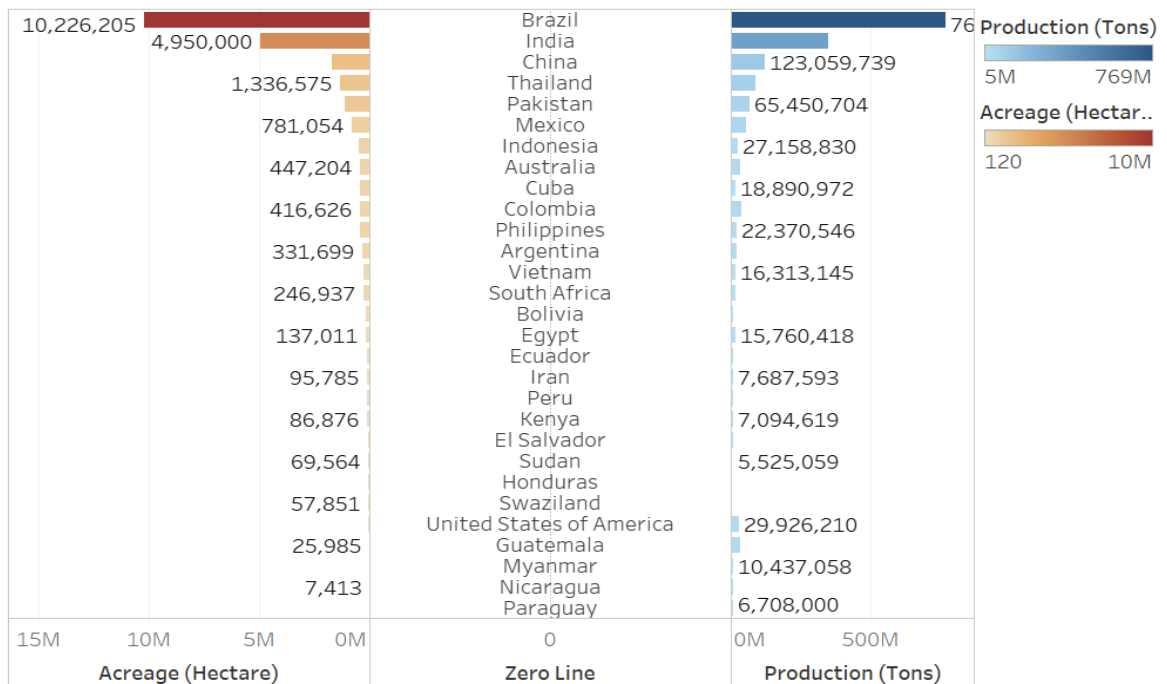
Sugarcane Production Analyis

The following visualization shows the production per person according to each country. Brazil and India have high production per each person

The following visualization sho...
for sugarcane cultivation and th

Production per P..
0 — 5M

Sugarcane Production Analyis

per person according to
on per each person

The following visualization shows a butterfly chart for the area avialable for sugarcane cultivation and the production for the top sugarcane

The f
yield

Acreage (Hectare)	Country	Production (Tons)
10,226,205	Brazil	76
4,950,000	India	
	China	123,059,739
1,336,575	Thailand	
	Pakistan	65,450,704
781,054	Mexico	
	Indonesia	27,158,830
447,204	Australia	
	Cuba	18,890,972
416,626	Colombia	
	Philippines	22,370,546
331,699	Argentina	
	Vietnam	16,313,145
246,937	South Africa	
	Bolivia	
137,011	Egypt	15,760,418
	Ecuador	
95,785	Iran	7,687,593
	Peru	
86,876	Kenya	7,094,619
	El Salvador	
69,564	Sudan	5,525,059
	Honduras	
57,851	Swaziland	
	United States of America	29,926,210
25,985	Guatemala	
	Myanmar	10,437,058
7,413	Nicaragua	
	Paraguay	6,708,000

Production (Tons)
5M — 769M

Acreage (Hectar..
120 — 10M

15M	10M	5M	0M

Acreage (Hectare)

0

Zero Line

0M	500M

Production (Tons)

Sugarcane Production Analyis

The following shows the Yield according to country .Guatemala has high yield

Guatemala	Burkina Faso	Honduras		China		Mali	India		
Senegal	Swaziland	Ecuador				Haiti			
Egypt	Nicaragua	Kenya	Thailand						
		Iran							
Peru	El Salvador	Sudan					Fiji		
Malawi	Colombia			Japan			Niger		
Chad	Portugal	Australia			Spain				
				Guyana	Belize				
Zambia	Syria	Brazil		Nepal					

Yield (Kg / Hecta..

119,498   1M
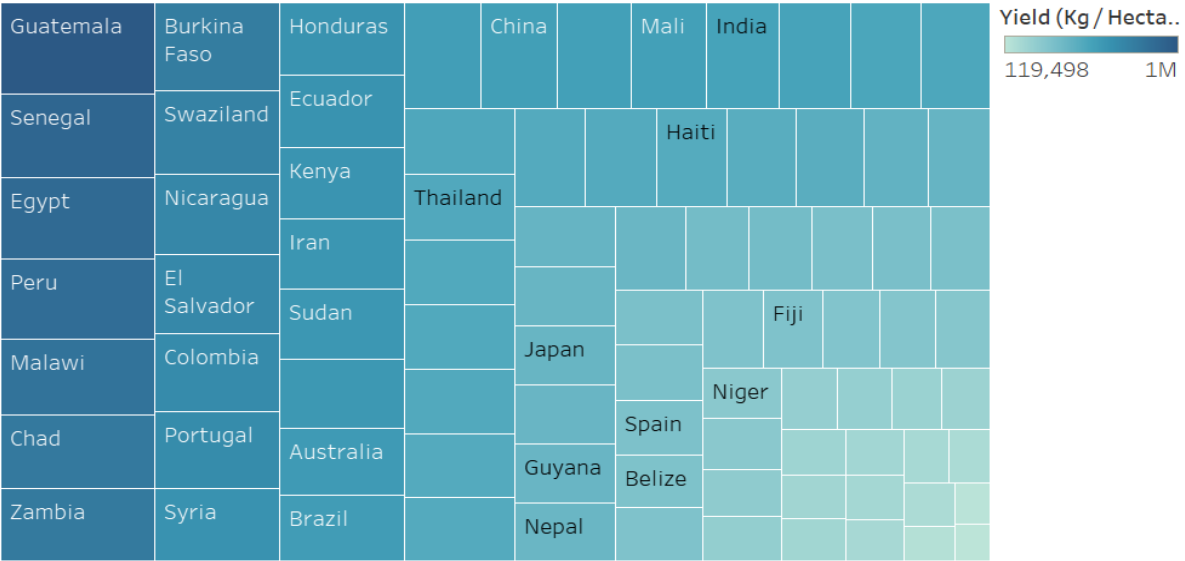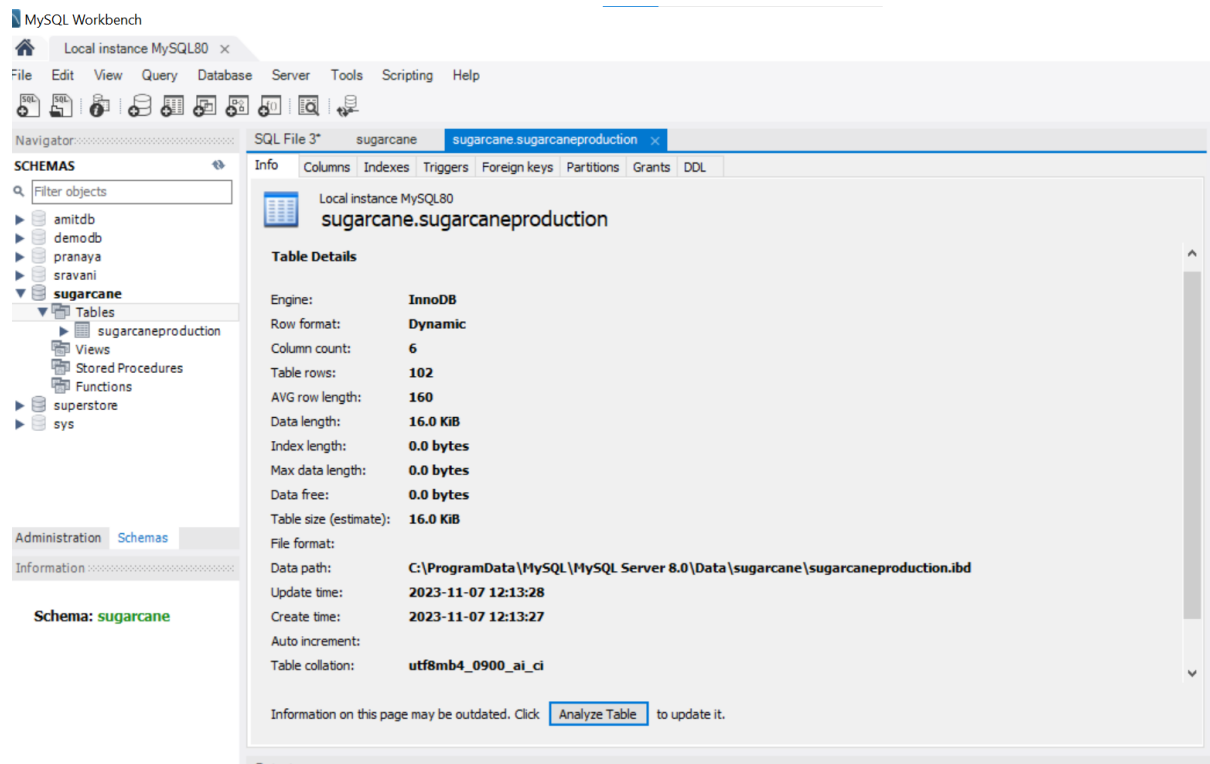
The following graph indicates the production of sugarcane per person according to the continent. we observe that North America is the

Continent

Production per Person (Kg)

16M
15M
14M
13M
12M
11M
10M
9M
8M
7M
6M
5M
4M
3M
2M
1M

Continent
- Africa
- Asia
- Europe
- North Ameri..
- Oceania
- South Ameri..

Continent

Acreage (Hectar..
71 ▬ 11M
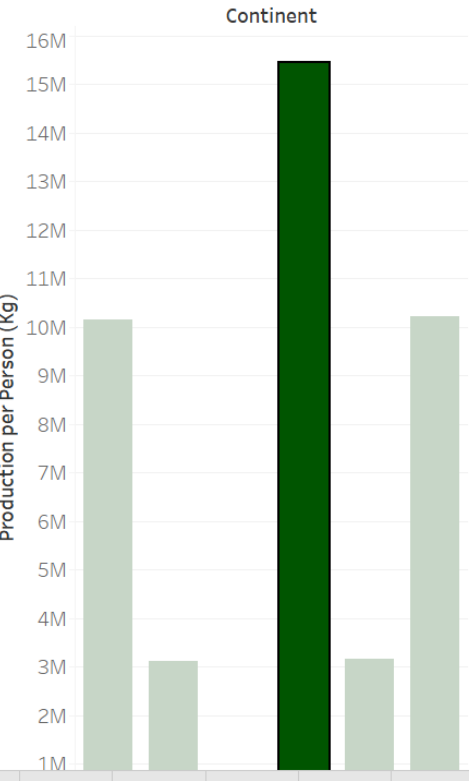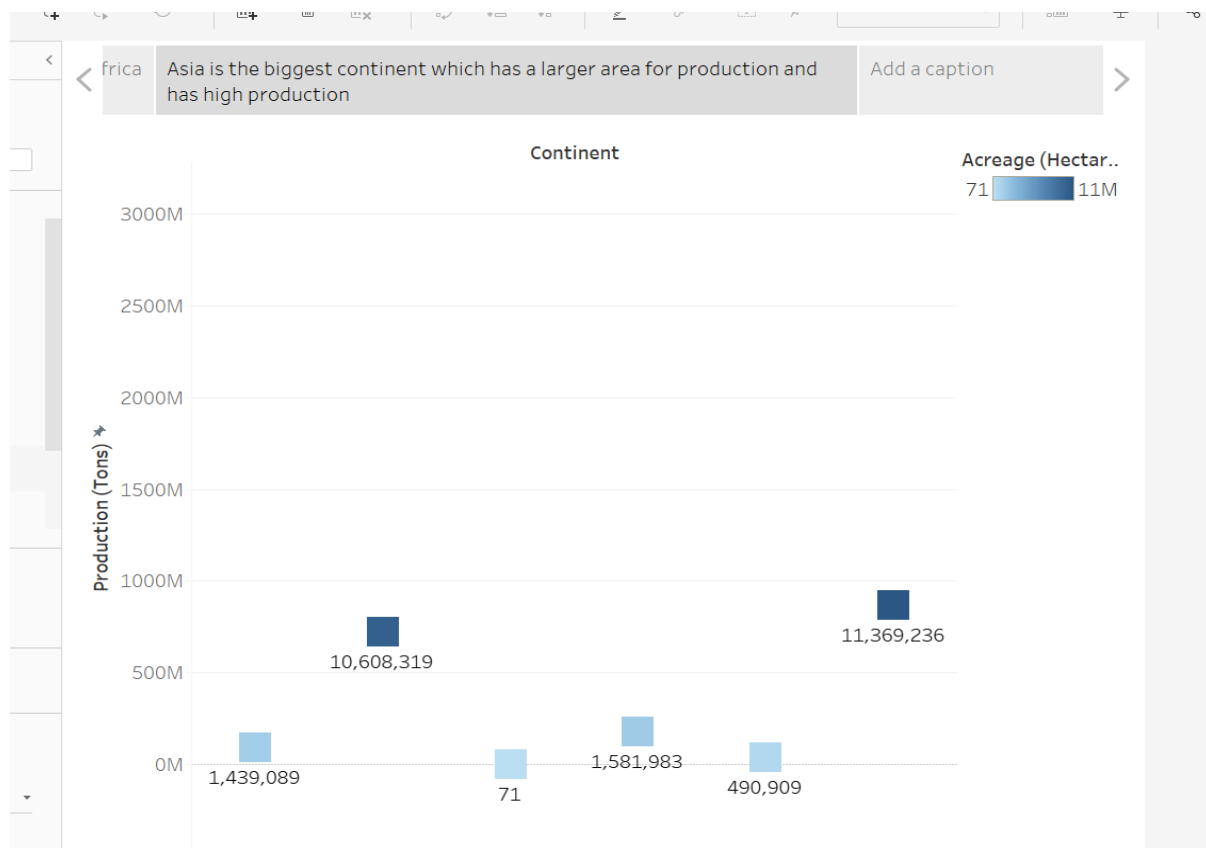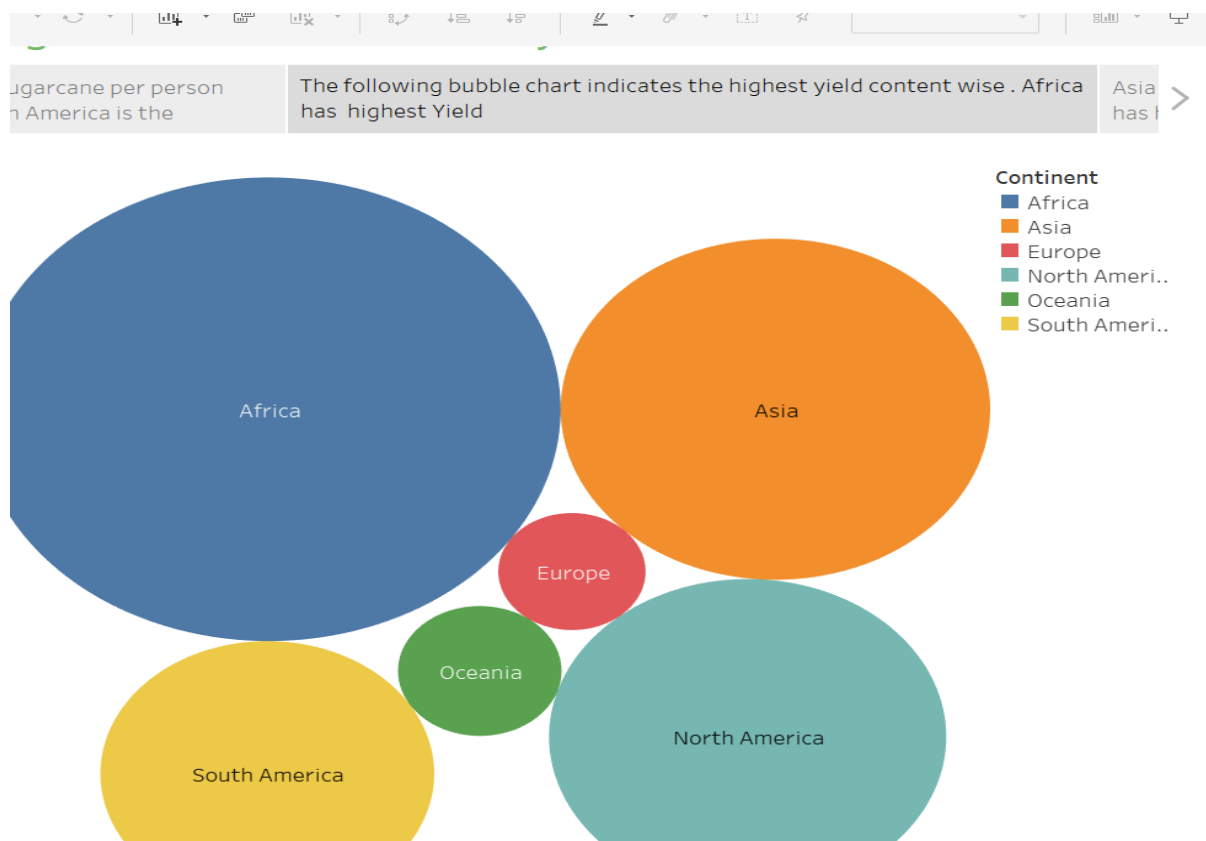
Performance Testing

➢ *Amount of Data Rendered to DB*

➢ *No of Calculation Fields*

In this Analysis we have not created any new column using calculation field as data found in dataset was clean and sufficient for analysis
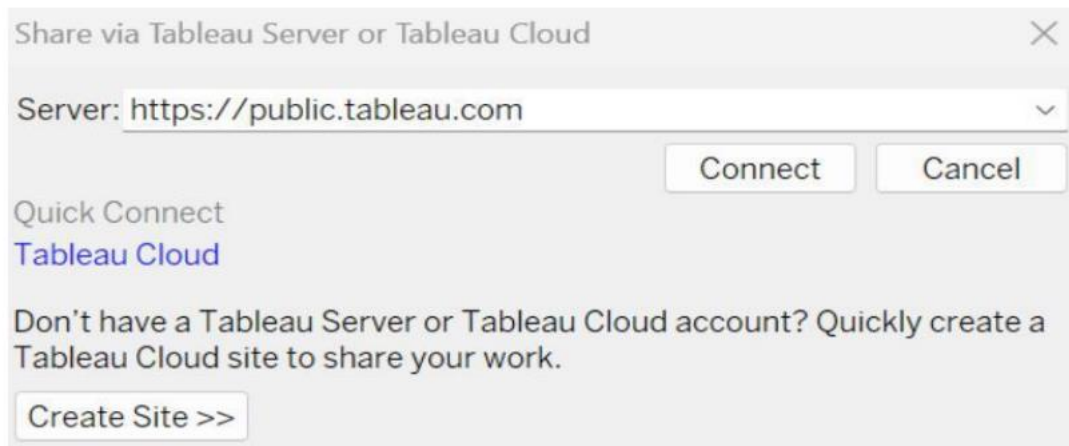
➢ *No of Visualizations/ Graphs*

1. Production per Person according to Country
2. Comparison of Production and Acreage according to country
3. Yield according to country
4. Production per person sum for continents
5. Average Yield according to Continent
6. Comparison of Acreage and Production according to Continent

Web integration

Publishing helps us to track and monitor key performance metrics and to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others

Publishing dashboard and reports to tableau public

Give the server address of your tableau public account and click on connect.
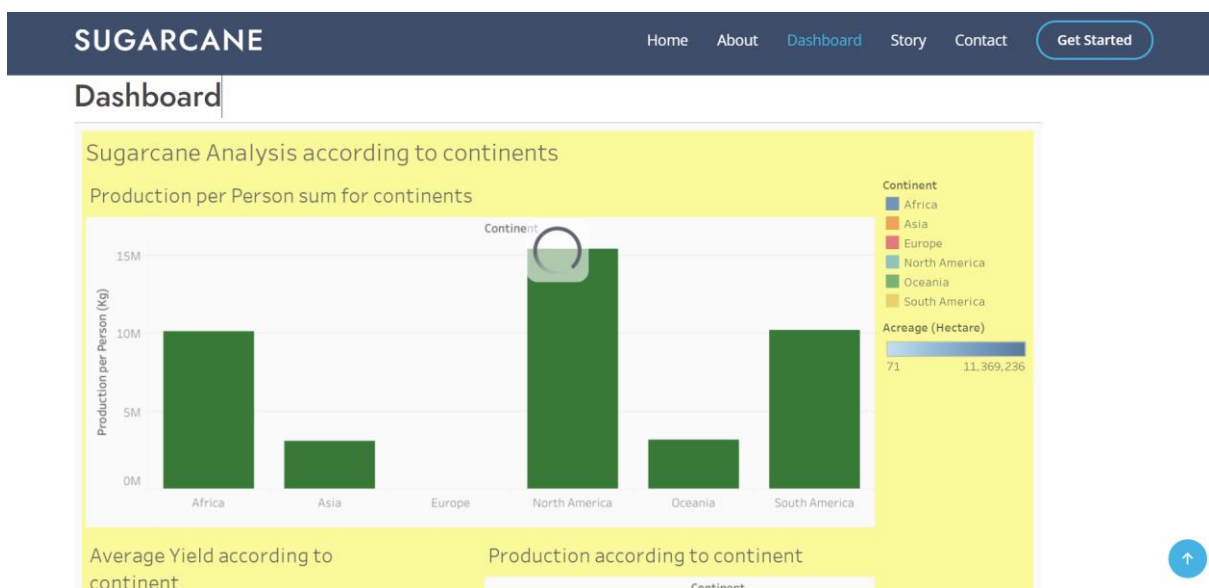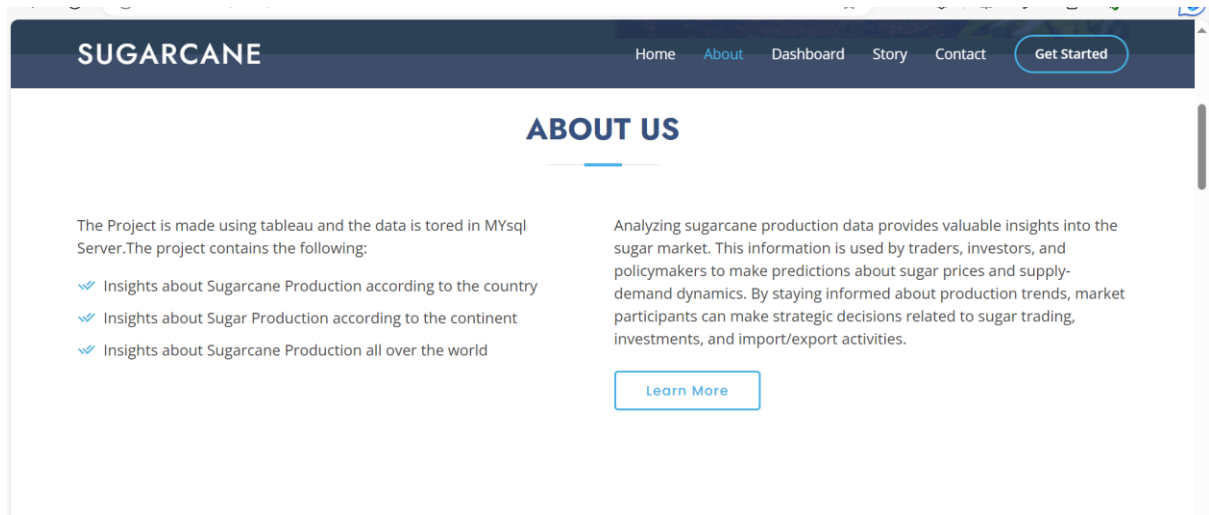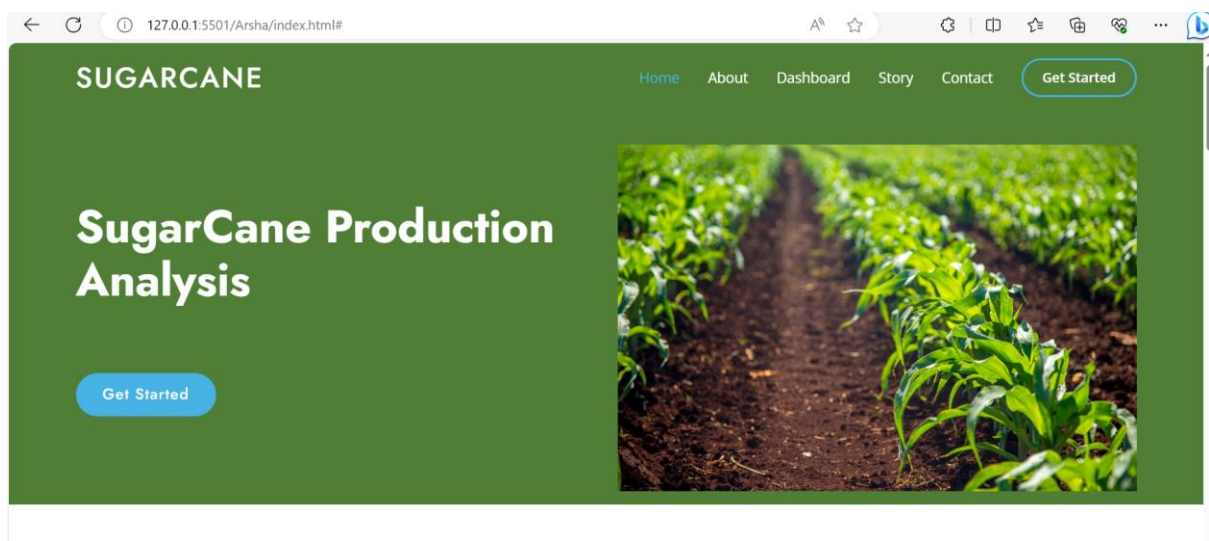

These are the dashboard and story links which we have Published

https://public.tableau.com/app/profile/sravani.gandla/viz/DashboardSugarcane11/Dashboard2?publish=yes

https://public.tableau.com/views/StorySugarcane11/Story1?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link

Embed Dashboard & Story with Web Bootstrap :

Story

Check our latest work

Sugarcane Production Analyis

each country. Brazil and India have

The following visualization shows a butterfly chart for the area avialable for sugarcane cultivation and the production for the top sugarcane producing country.Among all the sugarcane producing countries Brazil is the largest sugarcane cultivation country and its production is also high.

The fol

10,226,205	Brazil		348,448,000	Production (Tons)	
4,950,000	India			5,355,700	769M
1,675,215	China		123,059,739		
1,336,575	Thailand		87,468,496	Acreage (Hectare)	
1,130,820	Pakistan		65,450,704	120	10,226,205
781,054	Mexico		56,446,821		
472,693	Indonesia		27,158,830		
447,204	Australia		34,403,004		
442,307	Cuba		18,890,972		
416,626	Colombia		36,951,213		
410,104	Philippines		22,370,546		
331,699	Argentina		21,990,823		
256,322	Vietnam		16,313,145		
246,937	South Africa		15,074,610		
152,306	Bolivia		6,910,805		

127.0.0.1:5501/Arsha/index.html#

SUGARCANE

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