A Comprehensive Analysis Of Financial Performance: Insights From A Leading Banks

Category: Data Analytics With Tableau

Skills Required:**Tableau**

Project Description:

The banking industry world-wide is being transformed. The global forces for change include technological innovation; the deregulation of financial services at the national level and opening-up to international competition; and - equally important - changes in corporate behavior, such as growing disintermediation and increased emphasis on shareholder value. In addition, recent banking crises in Asia and Latin America have accentuated these pressures. The banking industries in central Europe and Latin America have also been transformed as a result of privatizations of state-owned banks that had dominated their banking systems in the past. In this project we are trying to analysis the bank related data and able to extract some insights from the data using Business Intelligence tools. To Extract the Insights from the data and put the data in the form of visualizations, Dashboards and Story we employed Tableau tool.

❍Define problem/Problem understanding

In this milestone, We will go through the problem understanding

- Specify The Business Problem

Duration:1hrs

Skill Tags:

The banking industry world-wide is being transformed. The global forces for change include technological innovation; the deregulation of financial services at the national level and opening-up to international competition; and - equally important - changes in corporate behavior, such as growing disintermediation and increased emphasis on shareholder value. In addition, recent banking crises in Asia and Latin America have accentuated these pressures. The banking industries in central Europe and Latin America have also been transformed as a result of privatizations of state-owned banks that had dominated their banking systems in the past. In this project we are trying to analysis the bank related data and able to extract some insights from the data using Business Intelligence tools. To Extract the Insights from the data and put the data in the form of visualizations, Dashboards and Story we employed Tableau tool.

- Business Requirements

Duration:1hrs

Skill Tags:

The business requirements for analyzing the performance and efficiency of banks in world include identifying KPIs, comparing performance across different countries and states, identifying patterns and trends over time, identifying affecting factors, creating interactive dashboards and reports, identifying areas for improvement, making data-driven decisions, comparing to the industry average and creating forecasting models for future performance. The ultimate goal is to gain insights and improve performance through data visualization techniques.

- Literature Survey

Duration:1hrs

Skill Tags:

A literature survey for the financial analysis of banks would involve researching and reviewing previous studies, articles, and reports on the topic. This could include information on the methods and techniques used for financial analysis of banks, as well as the results and conclusions of these studies. Some potential areas of focus for a literature survey on financial analysis of banks could include:

Ratio analysis, which involves comparing different financial metrics (such as return on assets, return on equity, etc.) to assess a bank's performance and compare it to industry averages or other benchmarks.

Stress testing, which involves simulating adverse economic scenarios to evaluate a bank's ability to withstand financial shocks.

Risk management, which involves identifying, assessing, and mitigating the various risks facing a bank, such as credit risk, market risk, and operational risk.

Basel III, which is a set of international regulatory standards for banks that includes measures for capital adequacy, liquidity, and leverage.

- Social Or Business Impact

Duration:1hrs

Skill Tags:

Social Impact: Financial analysis of banks can have a significant social impact by identifying areas where the bank's operations or lending practices may be causing harm to vulnerable communities or perpetuating inequality. For example, a financial analysis might reveal that a bank is heavily invested in

fossil fuel companies, contributing to climate change, or that the bank is disproportionately denying loans to minority-owned businesses, perpetuating economic discrimination.

Business Model/Impact: Financial analysis of banks can have a significant impact on the business operations of the bank itself and its competitors. For example, a financial analysis can help the bank identify areas where it is underperforming compared to its peers, such as in terms of profitability or asset quality. This information can then be used to develop strategies for improving the bank's performance, such as by reducing costs, increasing revenue, or improving risk management practices.

○Data Collection & Extraction From Database

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, evaluate outcomes and generate insights from the data.

- The Dataset

Duration:1hrs

- SAMPLE

rank	bank	country	total_assets_us_b	balance_sheet
1	Industrial &Commercial Bank of China	China	4005.58	12/31/2017
2	China Construction Bank Corp	China	3397.13	12/31/2017
3	Agricultural Bank of China	China	3232.68	12/31/2017
4	Bank of China	China	2989.16	12/31/2017
5	Mitsubishi UFJ Financial Group	Japan	2773.82	12/31/2017
6	JPMorgan Chase &Co	USA	2533.6	12/31/2017
7	HSBC Holdings	UK	2521.77	12/31/2017
8	BNP Paribas	France	2348.11	12/31/2017
9	Bank of America	USA	2281.23	12/31/2017

10	China Development Bank	China	2201.86	12/31/2016
11	Credit Agricole Group	France	2112.04	12/31/2017
12	Wells Fargo	USA	1951.76	12/31/2017
13	Japan Post Bank	Japan	1873.5	12/31/2017
14	Mizuho Financial Group	Japan	1850.1	12/31/2017
15	Sumitomo Mitsui Financial Group	Japan	1847.47	12/31/2017
16	Citigroup Inc	USA	1843.06	12/31/2017
17	Deutsche Bank	Germany	1766.85	12/31/2017
18	Banco Santander	Spain	1730.08	12/31/2017
19	Barclays PLC	UK	1528.89	12/31/2017
20	Societe Generale	France	1527.43	12/31/2017
21	Groupe BPCE	France	1509.13	12/31/2017
22	Bank of Communications	China	1387.79	12/31/2017
23	Postal Savings Bank of China	China	1383.85	12/31/2017
24	Lloyds Banking Group	UK	1095.64	12/31/2017
25	Royal Bank of Canada	Canada	1028.72	12/31/2017
26	ING Groep NV	Netherlands	1013.65	12/31/2017
27	Toronto-Dominion Bank	Canada	1006.98	12/31/2017

28	Norinchukin Bank	Japan	1006.7	12/31/2017
29	UniCredit S.p.A.	Italy	1002.36	12/31/2017
30	Royal Bank of Scotland Group	UK	995.729	12/31/2017
31	Industrial Bank Co. Ltd	China	985.646	12/31/2017
32	China Merchants Bank	China	966.117	12/31/2017
33	Intesa Sanpaolo	Italy	954.531	12/31/2017
34	Credit Mutuel	France	950.531	12/31/2016
35	UBS Group AG	Switzerland	937.802	12/31/2017
36	Shanghai Pudong Development Bank	China	942.777	12/31/2017
37	Goldman Sachs Group	USA	916.787	12/31/2017
38	Agricultural Development Bank of China	China	873.419	6/30/2017
39	China Minsheng Banking Corp	China	859.407	9/30/2017
40	Morgan Stanley	USA	851.733	12/31/2017
41	China CITIC Bank Corp	China	832.996	9/30/2017
42	BBVA	Spain	826.597	12/31/2017
43	Credit Suisse Group	Switzerland	815.587	12/31/2017
44	Bank of Nova Scotia	Canada	754.509	12/31/2017

45	Commonwealth Bank of Australia	Australia	750.775	12/31/2017
46	Rabobank Group	Netherlands	722.301	12/31/2017
47	Australia &New Zealand Banking Group	Australia	700.352	9/30/2017
48	Nordea	Sweden	695.795	12/31/2017
49	European Investment Bank	Luxembourg	686.653	12/31/2016
50	Westpac Banking Corp	Australia	664.878	9/30/2017
51	Standard Chartered Plc	UK	663.501	12/31/2017
52	National Australia Bank	Australia	615.516	9/30/2017
53	China Everbright Bank	China	627.737	12/31/2017
54	DZ Bank AG	Germany	605.64	12/31/2017
55	Bank of Montreal	Canada	578.53	12/31/2017
56	Sumitomo Mitsui Trust Holdings	Japan	569.949	12/31/2017
57	Danske Bank	Denmark	569.335	12/31/2017
58	KfW Group	Germany	565.392	12/31/2017
59	Commerzbank	Germany	541.434	12/31/2017
60	State Bank of India	India	534.903	12/31/2017
61	Cassa Depositi e Prestiti (CDP)	Italy	496.74	6/30/2017

62	The Export-Import Bank of China (Eximbank)	China	491.888	12/31/2016
63	Canadian Imperial Bank of Commerce	Canada	483.791	12/31/2017
64	Ping An Bank	China	481.75	9/30/2017
65	ABN AMRO Group NV	Netherlands	470.965	12/31/2017
66	Sberbank of Russia	Russia	470.181	12/31/2017
67	U.S. Bancorp	USA	462.04	12/31/2017
68	CaixaBank	Spain	459.005	12/31/2017
69	Itau Unibanco Holding SA	Brazil	437.41	12/31/2017
70	Resona Holdings	Japan	434.653	12/31/2017
71	Banco do Brasil SA	Brazil	413.147	12/31/2017
72	KB Financial Group	South Korea	409.01	12/31/2017
73	Shinhan Financial Group	South Korea	399.197	12/31/2017
74	Nomura Holdings	Japan	394.791	12/31/2017
75	DBS Group Holdings	Singapore	387.252	12/31/2017
76	Caixa Economica Federal	Brazil	383.261	9/30/2017
77	PNC Financial Services Group	USA	380.768	12/31/2017

78	Hua Xia Bank	China	375.543	9/30/2017
79	Bank of New York Mellon Corp	USA	371.758	12/31/2017
80	Shinkin Central Bank (SCB)	Japan	371.313	12/31/2017
81	Capital One Financial Corporation	USA	365.693	12/31/2017
82	Banco Bradesco SA	Brazil	365.493	12/31/2017
83	KBC Group NV	Belgium	350.186	12/31/2017
84	Bank of Beijing	China	349.354	9/30/2017
85	Oversea-Chinese Banking Corp (OCBC)	Singapore	340.297	12/31/2017
86	Hana Financial Group	South Korea	337.191	12/31/2017
87	Svenska Handelsbanken	Sweden	336.691	12/31/2017
88	NongHyup Financial Group	South Korea	333.156	6/30/2017
89	Woori Bank	South Korea	332.893	12/31/2017
90	DnB ASA	Norway	328.267	12/31/2017
91	China Guangfa Bank (CGB)	China	314.401	12/31/2016
92	Skandinaviska Enskilda Banken	Sweden	311.457	12/31/2017
93	Nationwide Building Society	UK	306.963	9/30/2017

94	Cathay Financial Holding	Taiwan	293.554	9/30/2017
95	Landesbank Baden-Wurttemberg	Germany	285.092	12/31/2017
96	La Banque Postale	France	277.278	12/31/2017
97	Bank of Shanghai	China	270.242	9/30/2017
98	Swedbank	Sweden	269.238	12/31/2017
99	United Overseas Bank (UOB)	Singapore	268.23	12/31/2017
100	Bank of Jiangsu	China	266.798	9/30/2017
101	Banco Sabadell	Spain	265.145	12/31/2017
102	Bayerische Landesbank	Germany	264.668	6/30/2017
103	Erste Group Bank AG	Austria	264.319	12/31/2017
104	Brazilian Development Bank (BNDES)	Brazil	262.087	9/30/2017
105	Industrial Bank of Korea	South Korea	256.641	12/31/2017
106	Bankia	Spain	256.261	12/31/2017
107	Charles Schwab Corp	USA	243.274	12/31/2017
108	Dexia	Belgium	238.847	6/30/2017
109	State Street Corp	USA	238.425	12/31/2017
110	Raiffeisen Schweiz	Switzerland	233.677	6/30/2017

111	Nykredit Group	Denmark	229.493	12/31/2017
112	Fubon Financial Holding	Taiwan	225.911	9/30/2017
113	VTB Bank	Russia	225.604	12/31/2017
114	China ZheShang Bank (CZBank)	China	223.148	6/30/2017
115	BB&T Corporation	USA	221.642	12/31/2017
116	Qatar National Bank	Qatar	221.18	12/31/2017
117	National Bank of Canada	Canada	208.408	12/31/2017
118	Suntrust Banks	USA	205.962	12/31/2017
119	Korea Development Bank	South Korea	205.145	12/31/2016
120	Belfius	Belgium	201.192	12/31/2017

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 SAMPLE 1

rank	bank	country	total_assets_us_b	balance_sheet
1	Industrial &Commercial Bank of China	China	3615.17	3/31/2017
2	China Construction Bank Corp	China	3149.25	3/31/2017
3	Agricultural Bank of China	China	2950.21	3/31/2017
4	Bank of China	China	2746.05	3/31/2017

5	Mitsubishi UFJ Financial Group	Japan	2713.44	3/31/2017
6	JPMorgan Chase &Co	USA	2546.29	3/31/2017
7	HSBC Holdings	UK	2416.47	3/31/2017
8	BNP Paribas	France	2348.65	3/31/2017
9	Bank of America	USA	2247.7	3/31/2017
10	Wells Fargo	USA	1951.56	3/31/2017
11	Japan Post Bank	Japan	1874.9	3/31/2017
12	Credit Agricole Group	France	1869.92	3/31/2017
13	China Development Bank	China	1831.86	3/31/2017
14	Citigroup Inc	USA	1821.64	3/31/2017
15	Mizuho Financial Group	Japan	1793.84	3/31/2017
16	Sumitomo Mitsui Financial Group	Japan	1769.54	3/31/2017
17	Deutsche Bank	Germany	1672.27	3/31/2017
18	Barclays PLC	UK	1502.15	3/31/2017
19	Societe Generale	France	1497.47	3/31/2017
20	Banco Santander	Spain	1444.85	3/31/2017
21	Groupe BPCE	France	1323.76	3/31/2017
22	Bank of Communications	China	1267.78	3/31/2017
23	Postal Savings	China	1231.95	3/31/2017

	Bank of China			
24	Lloyds Banking Group	UK	1020.01	3/31/2017
25	Royal Bank of Scotland Group	UK	977.408	3/31/2017
26	Norinchukin Bank	Japan	957.372	3/31/2017
27	ING Groep NV	Netherlands	945.608	3/31/2017
28	UniCredit S.p.A.	Italy	941.622	3/31/2017
29	Toronto-Dominion Bank	Canada	941.293	3/31/2017
30	UBS Group AG	Switzerland	909.208	3/31/2017
31	Royal Bank of Canada	Canada	904.45	3/31/2017
32	Industrial Bank Co. Ltd	China	904.22	3/31/2017
33	Goldman Sachs Group	USA	894.069	3/31/2017
34	China Merchants Bank	China	871.052	3/31/2017
35	China Minsheng Banking Corp	China	864.655	3/31/2017
36	Shanghai Pudong Development Bank	China	854.937	3/31/2017
37	China CITIC Bank Corp	China	834.934	3/31/2017
38	Morgan Stanley	USA	832.391	3/31/2017
39	Credit Suisse Group	Switzerland	811.622	3/31/2017

40	Intesa Sanpaolo	Italy	790.271	3/31/2017
41	Credit Mutuel	France	782.37	3/31/2017
42	BBVA	Spain	768.607	3/31/2017
43	Commonwealth Bank of Australia	Australia	743.871	3/31/2017
44	Rabobank Group	Netherlands	707.842	3/31/2017
45	Nordea	Sweden	694.95	3/31/2017
46	Australia &New Zealand Banking Group	Australia	686.298	3/31/2017
47	Bank of Nova Scotia	Canada	665.286	3/31/2017
48	Standard Chartered Plc	UK	646.692	3/31/2017
49	Westpac Banking Corp	Australia	643.032	3/31/2017
50	European Investment Bank	Luxembourg	612.616	3/31/2017
51	National Australia Bank	Australia	604.935	3/31/2017

▪▪▪

1. bank: Name of the bank

2. Country: In which country the bank is operating

3. Total Assest: Total assets of the banks

4. Rank : Rank of the bank among the world

5. landmass : Under which continent the bank belongs to

- Storing Data In DB & Perform SQL Operation

Skill Tags:

Explanation video link:

https://drive.google.com/file/d/1uUaPt7PE3t-jPk4txwyGsbVDkcXzDwOl/view?usp=sharing

- Connect DB With Tableau

Duration:1hrs

Skill Tags:

Explanation video link:

https://drive.google.com/file/d/1SRA3ZmvxodiJSLgAFZaOIDdXSHxxyId4/view?usp=sharing

Data Preparation

In this milestone, we will go through the data preparation.

- Prepare The Data For Visualization

Duration:1hrs

Skill Tags:

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

Data visualization is the process of creating graphical representations of data to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.

- ▪No Of Unique Visualizations

Duration:1hrs

Skill Tags:

The number of unique visualizations that can be created with a given dataset. Some common types of visualizations that can be used to analyze the performance and efficiency of banks include bar charts, line charts, heat maps, scatter plots, pie charts,Maps etc. These visualizations can be used to compare performance, track changes over time, show distribution, and relationships between variables, breakdown of revenue and customer demographics, workload, resource allocation and location of banks.

- ▪Top Banks According Rank And Assets

Duration:1hrs

Skill Tags:

Explanation video link:

https://drive.google.com/file/d/1u6kI3VaxvC3h1tpOn3qpyW6750vahz_p/view?usp=share_link

- ▪Top Banks According To Country Based On Total Assets

Duration:1hrs

Skill Tags:

Explanation video link:

https://drive.google.com/file/d/1lz36VGuEN2GQfk3SVUxKfLSV3j7JYDhL/view?usp=share_link

- ▪Top 10 Countries With Assets Proportion

Duration:1hrs

Skill Tags:

Explanation video link:

https://drive.google.com/file/d/1sNB__zur3QyZv_Yyy9RGTSY03yp1qW9G/view?usp=share_link

- Country With Total Assets Using Funnel Chart In Increasing Order

Skill Tags:

Explanation video link:

https://drive.google.com/file/d/14NMGJzlQLRqpDf6CJIFoW46ILt-mfQ3q/view?usp=share_link

- Total Assets Analysis According To Year And Quarter

Duration:1hrs

Skill Tags:

Explanation video link:

https://drive.google.com/file/d/15qyllQkgvvTuH85IgiboLaODsX-tqgH5/view?usp=share_link

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

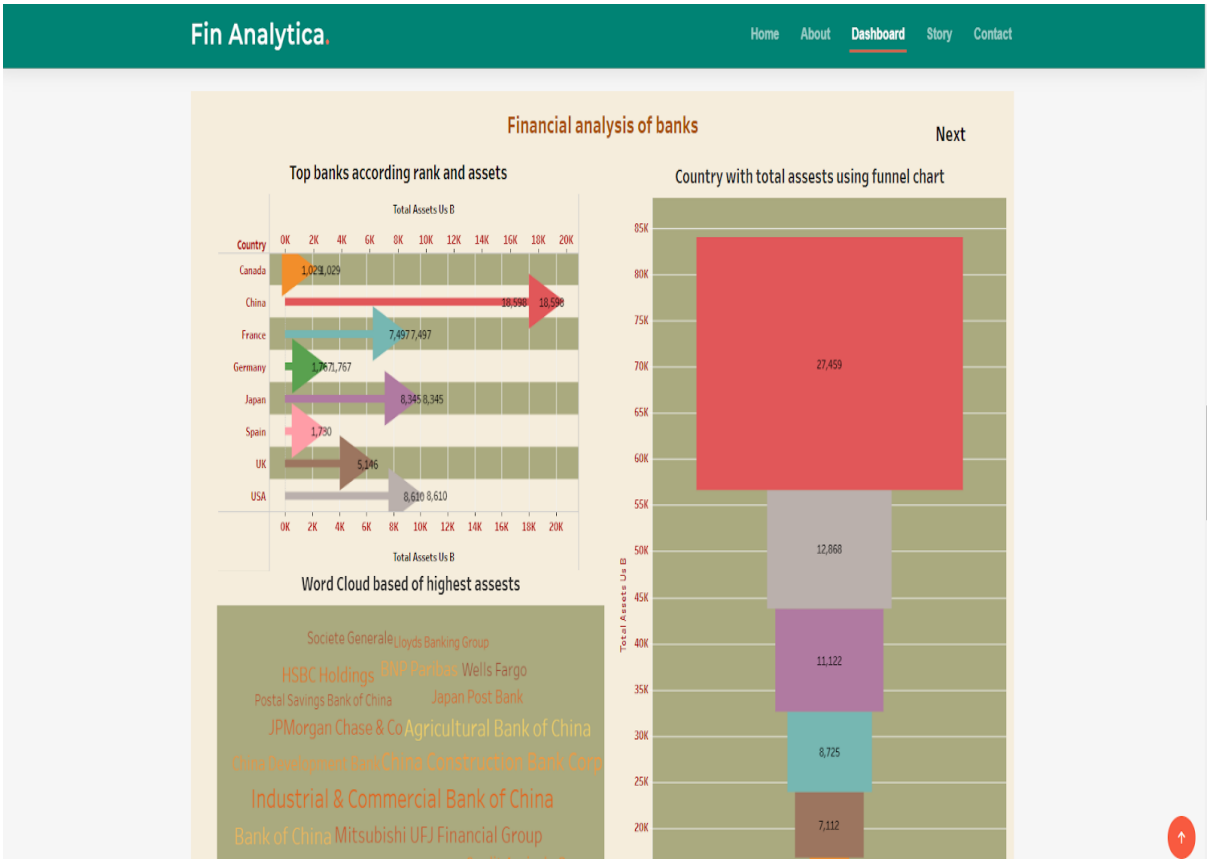
Duration:1hrs

Skill Tags:

Once you have created views on different sheets in Tableau, you can pull them into a dashboard.

Explanation video link:

https://drive.google.com/file/d/1hhFpcwXXxjuUnyuTm-E3eMKdx4ha1DJm/view?usp=share_link



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

Duration:1hrs

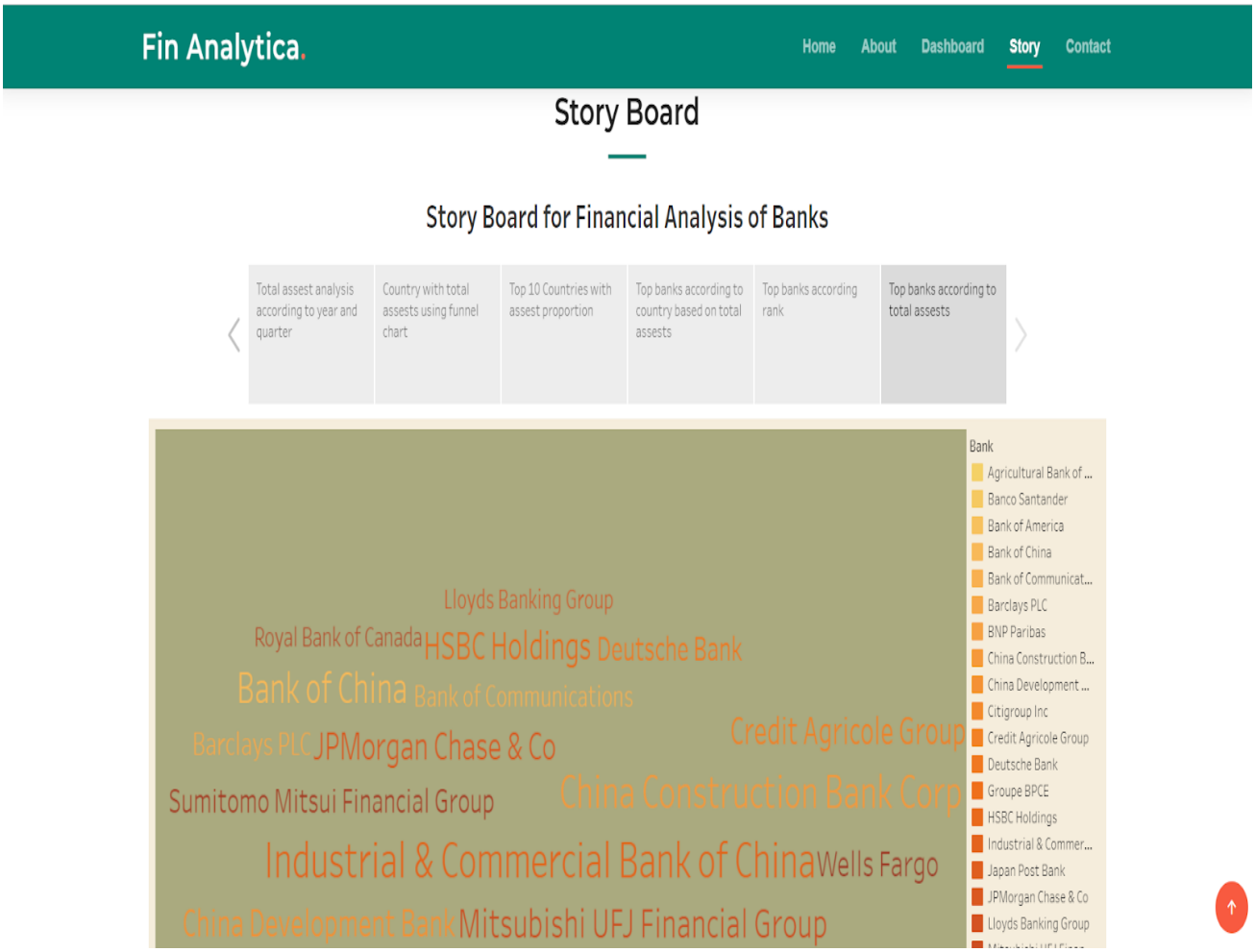
Skill Tags:

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.

Explanation video link:

https://drive.google.com/file/d/1ouhFYIcZaI__5iOEouC9o16FOBxs5dW6/view?usp=share_link



Performance Testing

In this milestone, we will go through the performance testing.

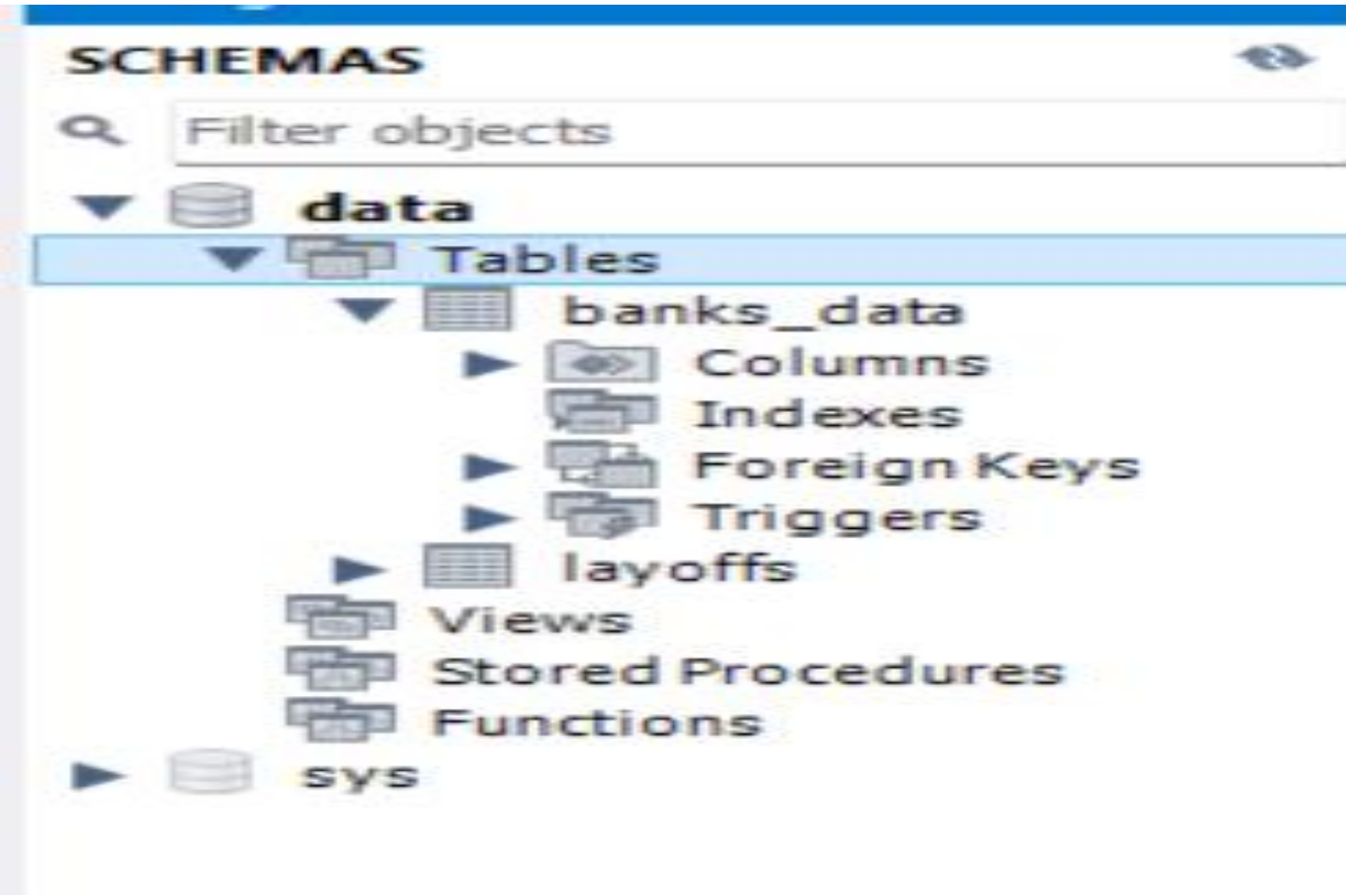
- Amount Of Data Rendered To DB

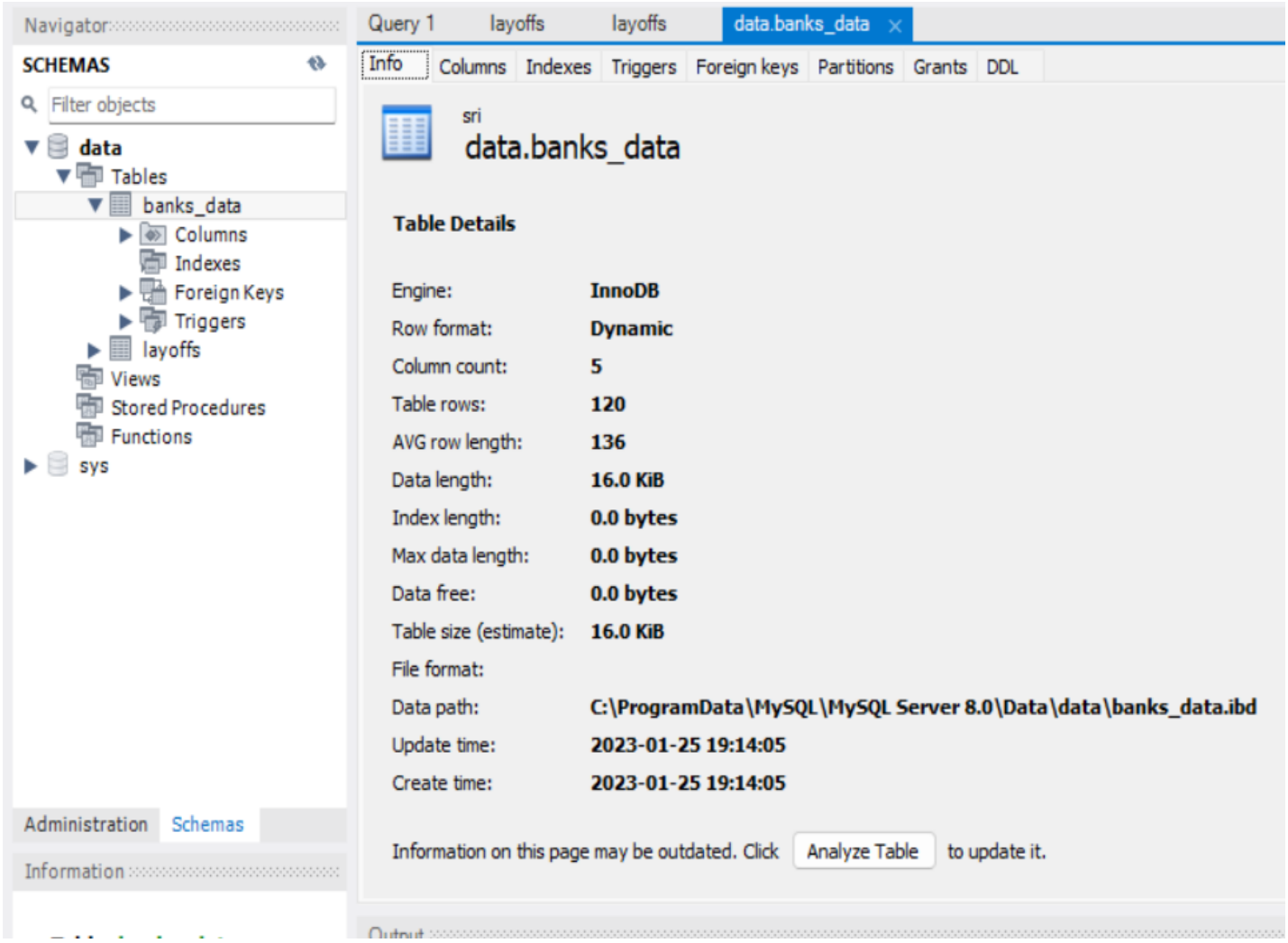
Duration:1hrs

Skill Tags:

The amount of data that is rendered to a database depends on the size of the dataset and the capacity of the database to store and retrieve data.

Open the MySQL Workbench, go to the database then click to expand the tables,select the table and click on (i) button to get the information related to table such as column count,table rows etc.

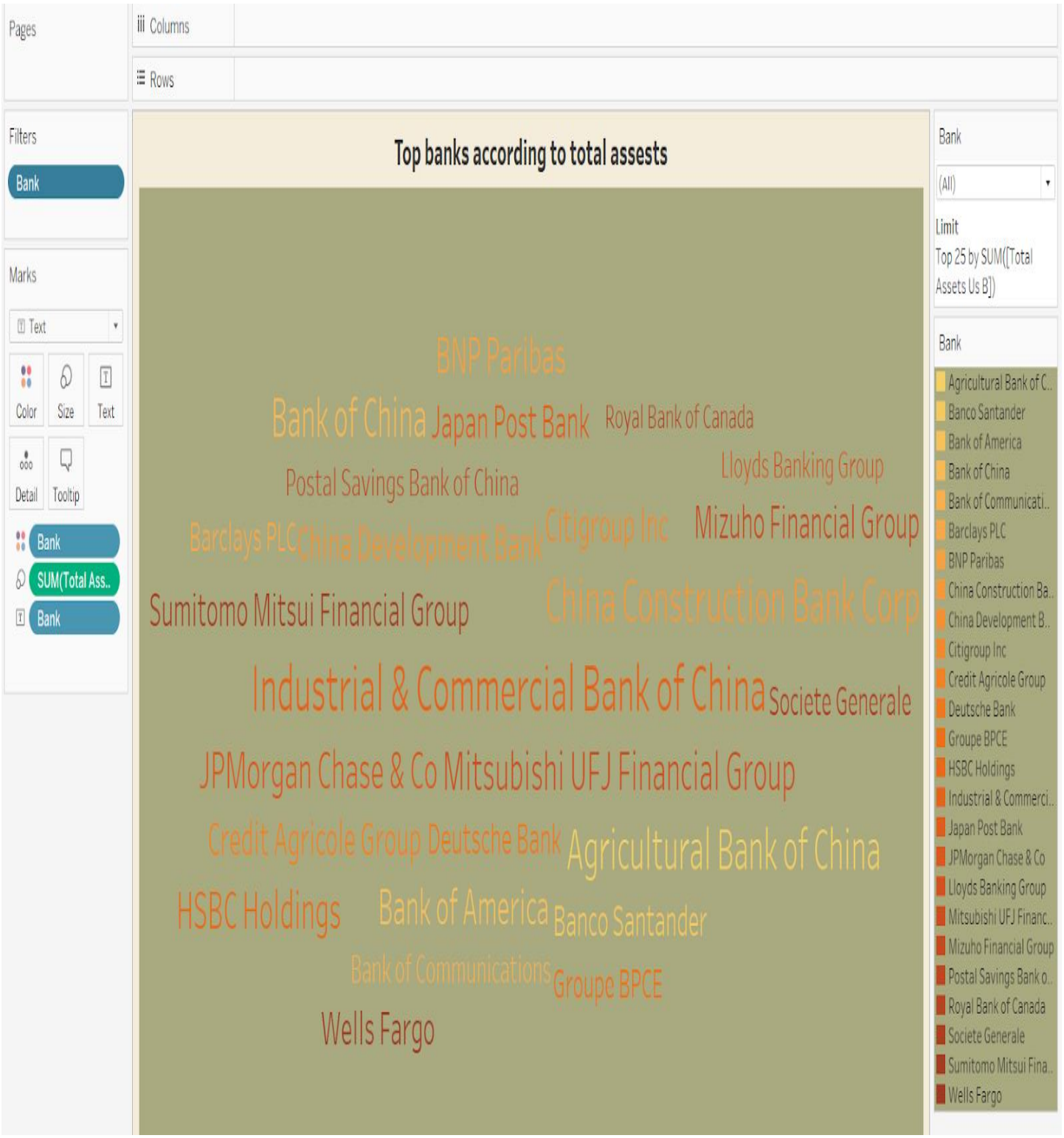


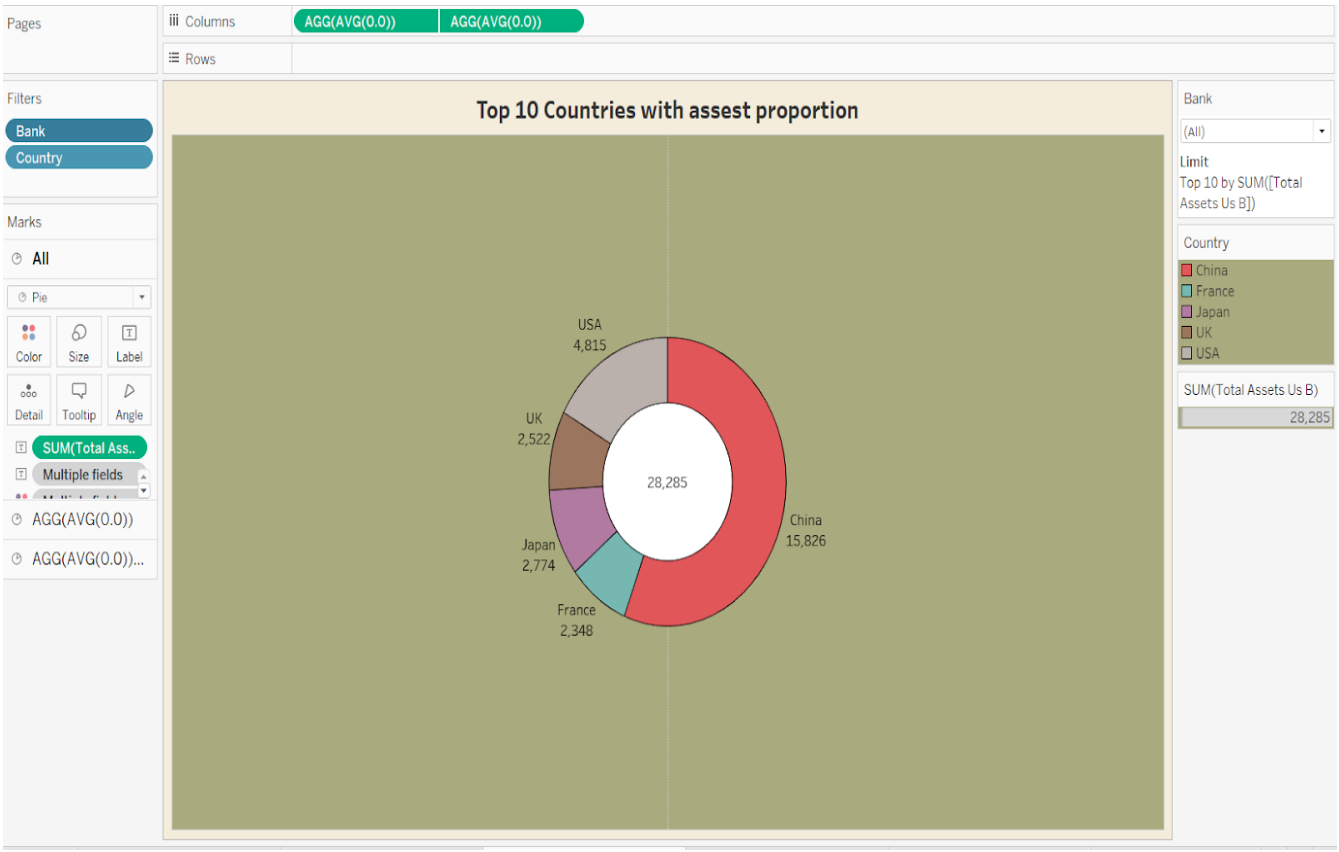


Utilization Of Data Filters

Duration: 1 Hrs

Skill Tags:

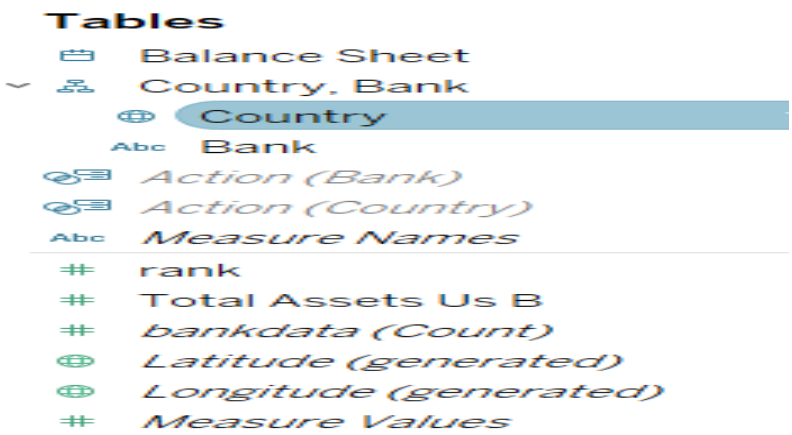

Pages
Columns
Rows
Filters
Bank
Marks
Text
Color
Size
Text
Detail
Tooltip
Bank
SUM(Total Ass..
Bank
Top banks according to total assests
BNP Paribas
Bank of China
Japan Post Bank
Royal Bank of Canada
Lloyds Banking Group
Postal Savings Bank of China
Barclays PLC
China Development Bank
Citigroup Inc
Mizuho Financial Group
Sumitomo Mitsui Financial Group
China Construction Bank Corp
Industrial & Commercial Bank of China
Societe Generale
JPMorgan Chase & Co
Mitsubishi UFJ Financial Group
Credit Agricole Group
Deutsche Bank
Agricultural Bank of China
HSBC Holdings
Bank of America
Banco Santander
Bank of Communications
Groupe BPCE
Wells Fargo
Bank
(All)
Limit
Top 25 by SUM([Total Assets Us B])
Bank
Agricultural Bank of C..
Banco Santander
Bank of America
Bank of China
Bank of Communicati..
Barclays PLC
BNP Paribas
China Construction Ba..
China Development B..
Citigroup Inc
Credit Agricole Group
Deutsche Bank
Groupe BPCE
HSBC Holdings
Industrial & Commerci..
Japan Post Bank
JPMorgan Chase & Co
Lloyds Banking Group
Mitsubishi UFJ Financ..
Mizuho Financial Group
Postal Savings Bank o..
Royal Bank of Canada
Societe Generale
Sumitomo Mitsui Fina..
Wells Fargo



- No Of Calculation Fields

Duration: 1 Hrs

Skill Tags:



- No Of Visualizations/ Graphs

Duration: 1 Hrs

Skill Tags:

1.Top banks according rank and assets

2.Top banks according to total assets

3.Top banks according to country based on total assets

4.Top 10 Countries with assets proportion

5.Country with total assets using funnel chart in increasing order

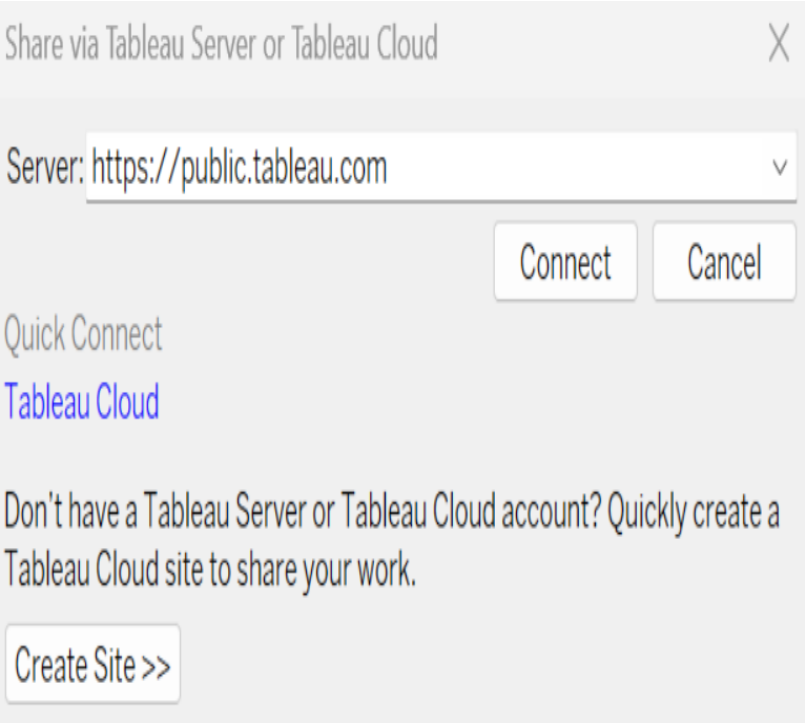
6.Total assets analysis according to year and quarter

Web Integration

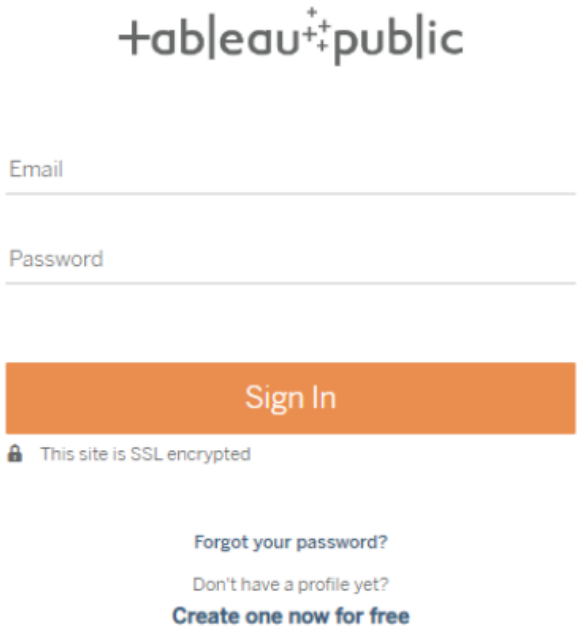
Publishing helps us to track and monitor key performance metrics and to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others.

Publishing dashboard and reports to tableau public

Step 1: Go to Dashboard/story, click on the share button on the top ribbon



Step 2: Once you click on connect it will ask you for the tableau public username and password



Once you login into your tableau public using the credentials, the particular visualization will be published into the tableau public

Note: While publishing the visualization to the public, the respective sheet will get published when you click on the share option.

- Embed Dashboard & Story With Web Bootstrap

Duration: 1 Hrs

Skill Tags:

Explanation video link:

https://drive.google.com/file/d/1UCDtmXj8FI4bgHeNZs2EZFYuJzVF_gwN/view?usp=sharing

finanalytica@gmail.com +999999999

Fin Analytica.

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We provide best Business intelligence solutions to the companies,which makes a strategy for elevating their business in the market

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We provide business solutions in various domains.

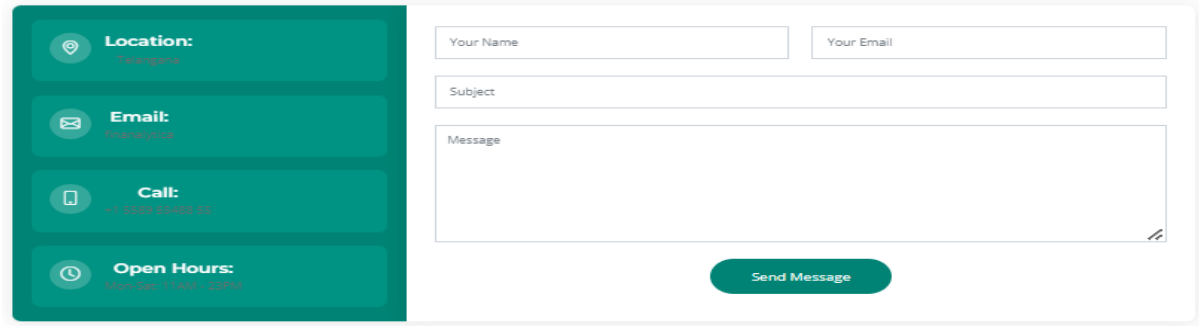
- Insights generations using Business Intelligence.
- Building Data models using Statistics.
- Developing the predictive models.

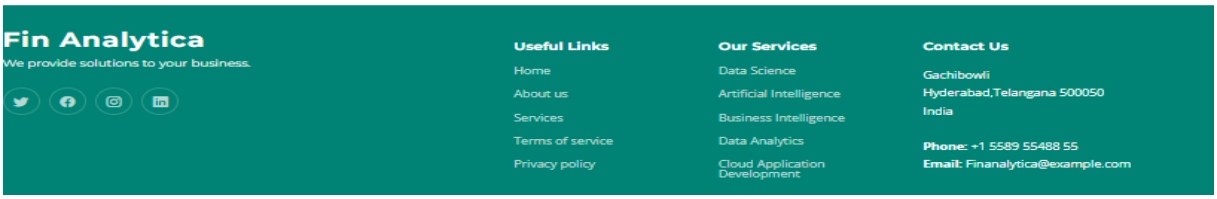
1000000 **Students** has Succesfully trained

300 **Projects** has been developed

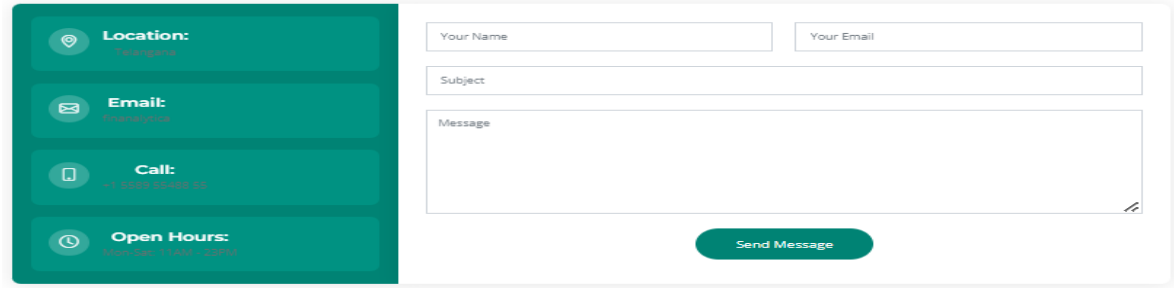
10000 **Hours Of Support** has been delivered

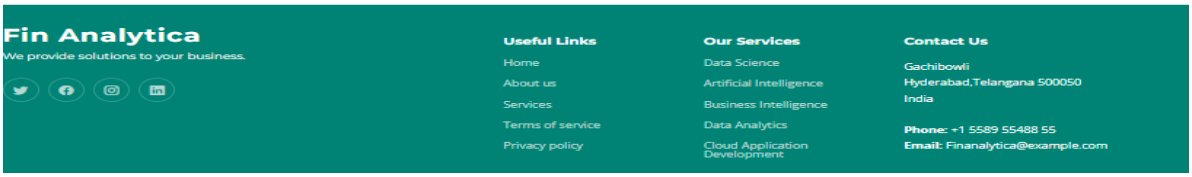
Contact





Contact





❍Project Demonstration & Documentation

Projects deliverables to be submitted along with other deliverables

- ▪Record Explanation Video For The Project's End-To-End Solution

Duration: 1 Hrs

Skill Tags:

Record explanation Video for the project's end-to-end solution

- ▪Project Documentation-Step By Step Project Development Procedure

Duration: 1 Hrs

Skill Tags:

Create document as per the template provided.