

# **Milestone 1:**

## **Empathy map creation**



## Empathy map

Use this framework to develop a deep, shared understanding and empathy for other people. An empathy map helps describe the aspects of a user's experience, needs and pain points, to quickly understand your users' experience and mindset.

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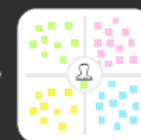
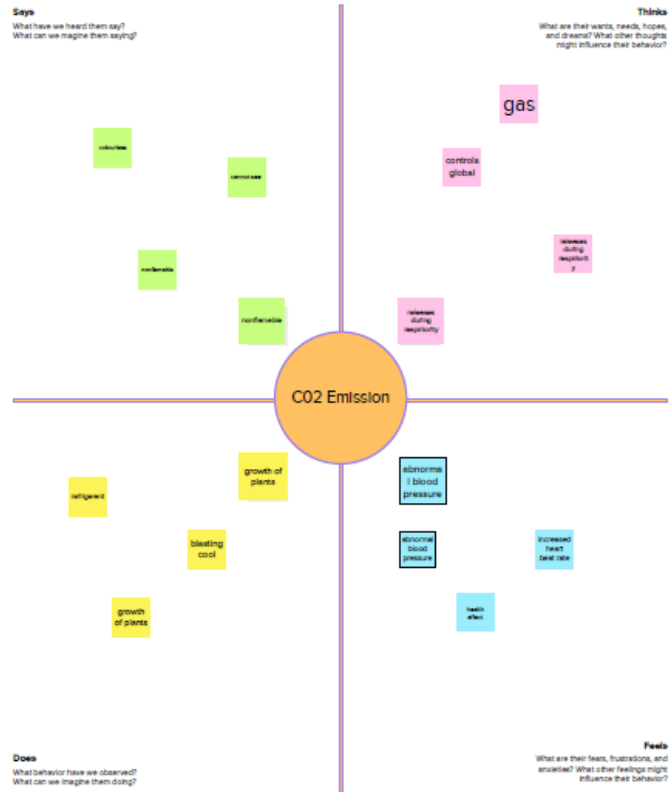
**Need some inspiration?**  
See a finished version of this template to kickstart your work.

[Open example](#)



## Build empathy

The information you add here should be representative of the observations and research you've done about your users.



**Milestone 2:**  
**Data Collection & Extraction**  
**from Database**

## Milestone2: 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, and evaluate outcomes and generate insights from the data.

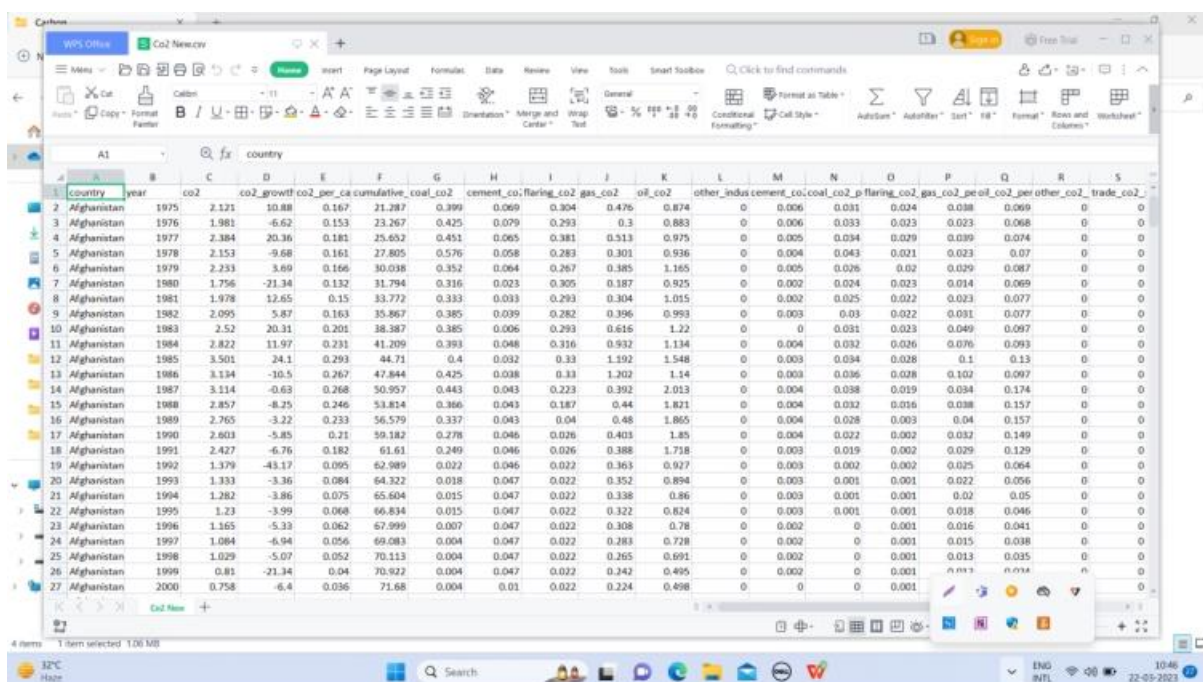
### Activity 1: Collect the data set

Please use the link to download the data set:

[https://drive.google.com/file/d/1n764uDPT\\_ZF7kzGFLtpxkwBBsDBScbWm/view?usp=sharing](https://drive.google.com/file/d/1n764uDPT_ZF7kzGFLtpxkwBBsDBScbWm/view?usp=sharing)

solution:

We opened and accessed the data set in csv format



country	year	co2	co2_growth	co2_per_cap	cumulative_co2	cement_co2	flaring_co2	gas_co2	oil_co2	other_indus	cement_co2	coal_co2	flaring_co2	gas_co2	oil_co2	per_oil_co2	other_co2	trade_co2
Afghanistan	1975	2.121	10.88	0.167	21.287	0.399	0.069	0.304	0.476	0.874	0	0.006	0.031	0.024	0.038	0.069	0	0
Afghanistan	1976	1.981	-6.62	0.153	23.267	0.425	0.079	0.293	0.3	0.883	0	0.006	0.033	0.023	0.023	0.068	0	0
Afghanistan	1977	2.384	20.36	0.181	25.652	0.451	0.065	0.381	0.513	0.975	0	0.005	0.034	0.029	0.039	0.074	0	0
Afghanistan	1978	2.153	-9.68	0.161	27.805	0.576	0.058	0.283	0.301	0.936	0	0.004	0.043	0.021	0.023	0.07	0	0
Afghanistan	1979	2.233	3.69	0.166	30.038	0.352	0.064	0.267	0.385	1.165	0	0.005	0.026	0.02	0.029	0.087	0	0
Afghanistan	1980	1.756	-21.34	0.132	31.794	0.316	0.023	0.305	0.187	0.925	0	0.002	0.024	0.023	0.014	0.069	0	0
Afghanistan	1981	1.978	12.65	0.15	33.772	0.333	0.033	0.293	0.304	1.015	0	0.002	0.025	0.022	0.023	0.077	0	0
Afghanistan	1982	2.095	5.87	0.163	35.867	0.385	0.039	0.282	0.396	0.993	0	0.003	0.03	0.022	0.031	0.077	0	0
Afghanistan	1983	2.52	20.31	0.201	38.387	0.385	0.006	0.293	0.616	1.22	0	0	0.031	0.023	0.049	0.097	0	0
Afghanistan	1984	2.822	11.97	0.231	41.209	0.393	0.048	0.316	0.932	1.134	0	0.004	0.032	0.026	0.076	0.093	0	0
Afghanistan	1985	3.501	24.1	0.293	44.71	0.4	0.032	0.33	1.192	1.548	0	0.003	0.034	0.028	0.1	0.13	0	0
Afghanistan	1986	3.134	-10.5	0.267	47.844	0.425	0.038	0.33	1.202	1.14	0	0.003	0.036	0.028	0.102	0.097	0	0
Afghanistan	1987	3.114	-0.63	0.268	50.957	0.443	0.043	0.223	0.392	2.013	0	0.004	0.038	0.019	0.034	0.174	0	0
Afghanistan	1988	2.857	-8.25	0.246	53.814	0.366	0.043	0.187	0.44	1.821	0	0.004	0.032	0.016	0.038	0.157	0	0
Afghanistan	1989	2.765	-3.22	0.233	56.579	0.337	0.043	0.04	0.48	1.865	0	0.004	0.028	0.003	0.04	0.157	0	0
Afghanistan	1990	2.603	-5.85	0.21	59.182	0.278	0.046	0.026	0.403	1.85	0	0.004	0.022	0.002	0.032	0.149	0	0
Afghanistan	1991	2.427	-6.76	0.182	61.61	0.249	0.046	0.026	0.388	1.718	0	0.003	0.019	0.002	0.029	0.129	0	0
Afghanistan	1992	1.379	-43.17	0.095	62.989	0.022	0.046	0.022	0.363	0.927	0	0.003	0.002	0.002	0.025	0.064	0	0
Afghanistan	1993	1.333	-3.36	0.084	64.322	0.018	0.047	0.022	0.352	0.894	0	0.003	0.001	0.001	0.022	0.056	0	0
Afghanistan	1994	1.282	-3.86	0.075	65.604	0.015	0.047	0.022	0.338	0.86	0	0.003	0.001	0.001	0.02	0.05	0	0
Afghanistan	1995	1.23	-3.99	0.068	66.834	0.015	0.047	0.022	0.322	0.824	0	0.003	0.001	0.001	0.018	0.046	0	0
Afghanistan	1996	1.165	-5.33	0.062	67.999	0.007	0.047	0.022	0.308	0.78	0	0.002	0	0.001	0.016	0.041	0	0
Afghanistan	1997	1.084	-6.94	0.056	69.083	0.004	0.047	0.022	0.283	0.728	0	0.002	0	0.001	0.015	0.038	0	0
Afghanistan	1998	1.029	-5.07	0.052	70.113	0.004	0.047	0.022	0.265	0.691	0	0.002	0	0.001	0.013	0.035	0	0
Afghanistan	1999	0.81	-21.34	0.04	70.922	0.004	0.047	0.022	0.242	0.495	0	0.002	0	0.001	0.011	0.031	0	0
Afghanistan	2000	0.758	-6.4	0.036	71.68	0.004	0.01	0.022	0.224	0.498	0	0	0	0.001	0.01	0.03	0	0

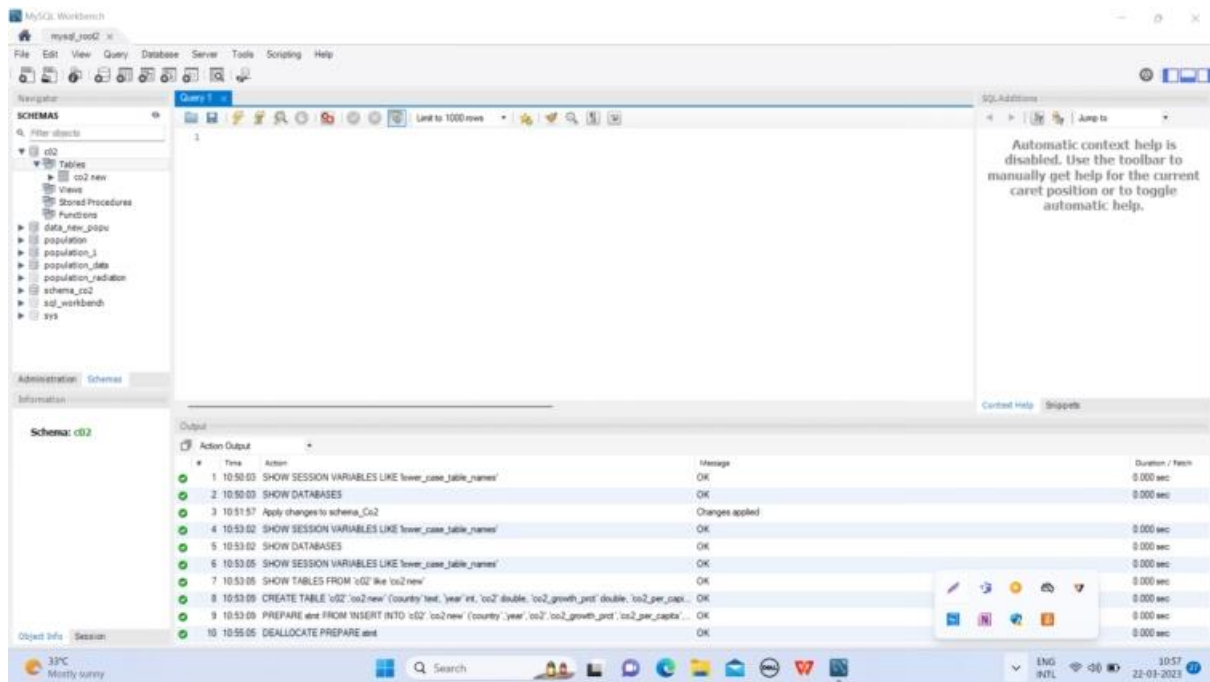
## Activity 2: Storing Data in DB & Connect DB with Tableau

Explanation video link:

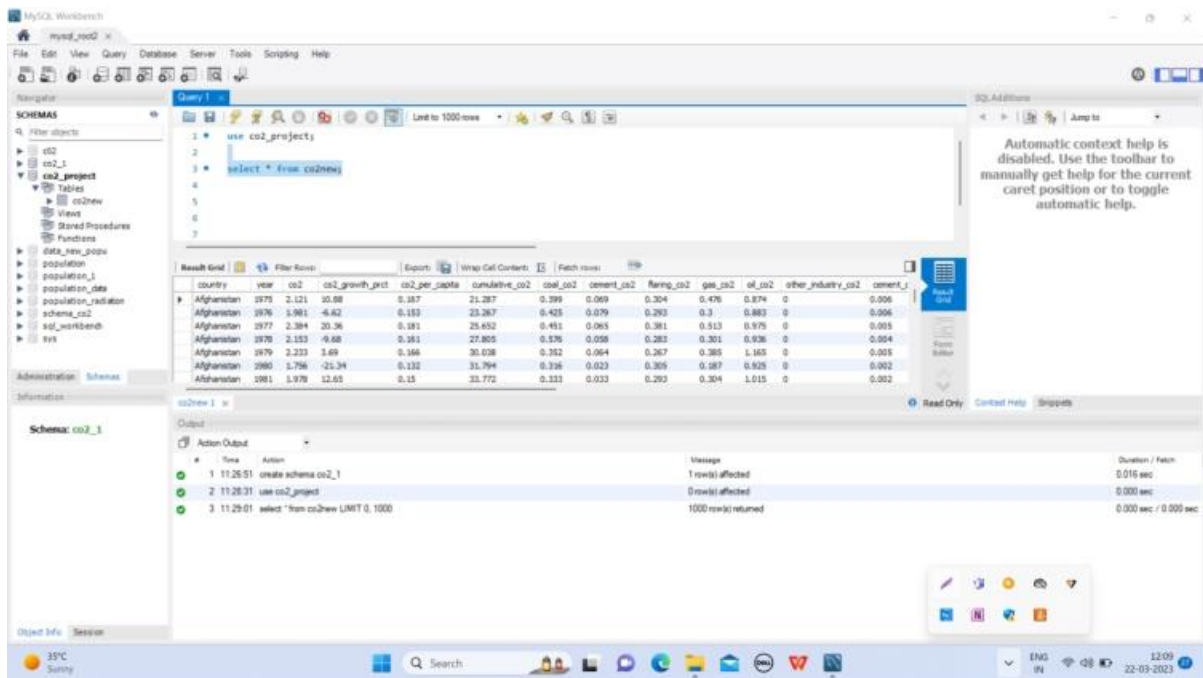
[https://drive.google.com/file/d/1WUK\\_E6SJbev4eByoyGUluBsJ2yiifvgz/view?usp=sharing](https://drive.google.com/file/d/1WUK_E6SJbev4eByoyGUluBsJ2yiifvgz/view?usp=sharing)

Solution:

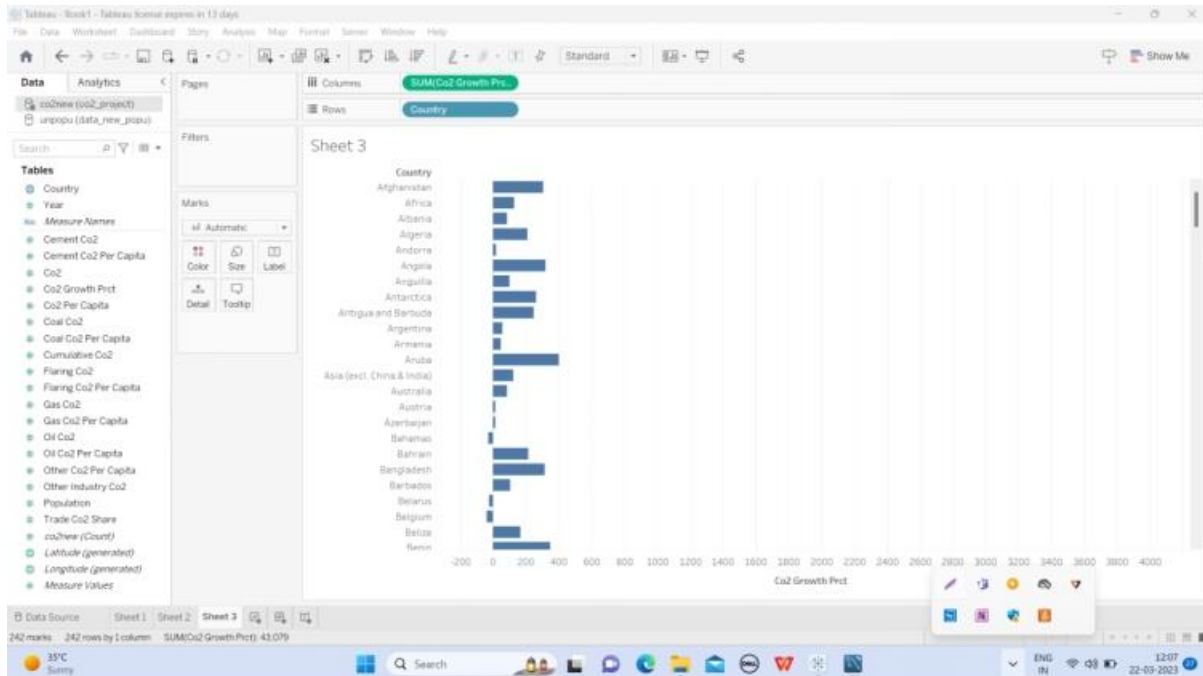
We opened a new sql workbench



Then we impot the csv file to tableau



We generated a new graph using tableau for co2 emmision project



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# **Milestone 3:**

# **Data Preparation**

## **Milestone 3: Data Preparation**

### **Activity: Prepare the Data for Visualization**

#### **Solution:**

**We collected the data set. The followings are in the set as**

**1.csv file is noted.**

**2. The data consists of years around 1950-2000.**

**3. The numbers related to the Co2 emission in various countries around world like Afghanistan, America, Australia etc.**

**4. The growth of Co2 emission from various sources is noted like coal, cement, oil etc.**

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# **Milestone 4:**

# **Data Visualization**

## **Milestone 4: Data Preparation**

### **Milestone 4: Data Visualization**

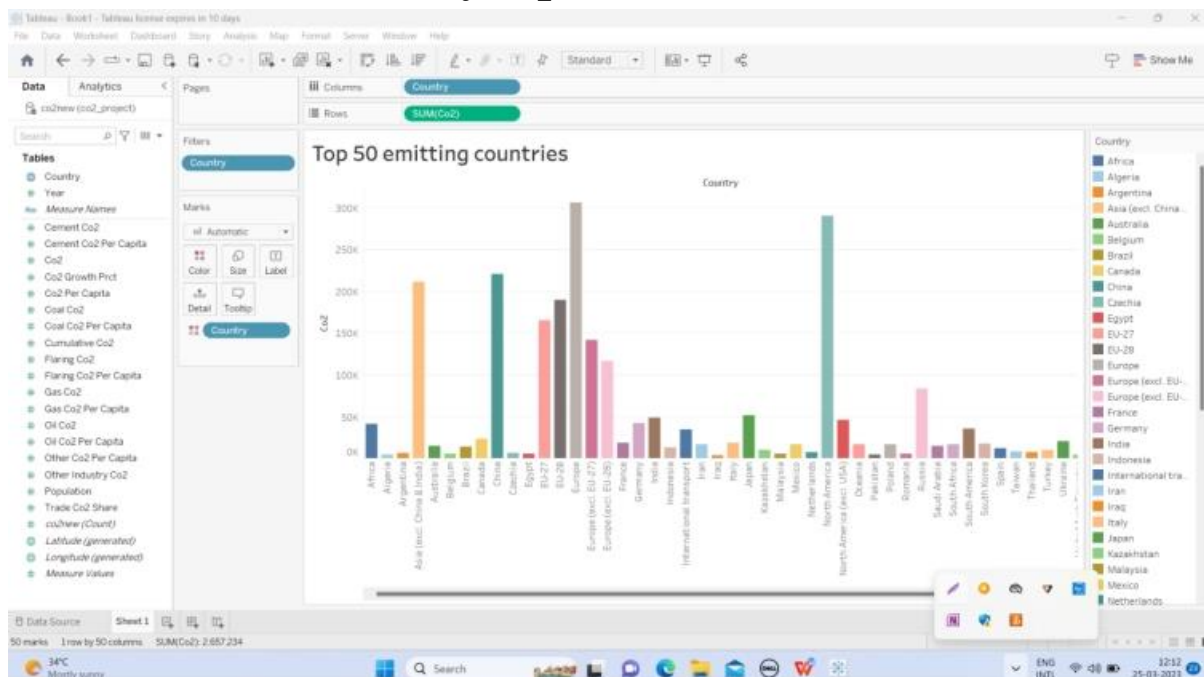
Data visualization is the process of creating graphical representations of data in order to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs,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

#### **Activity 1: No of Unique Visualizations**

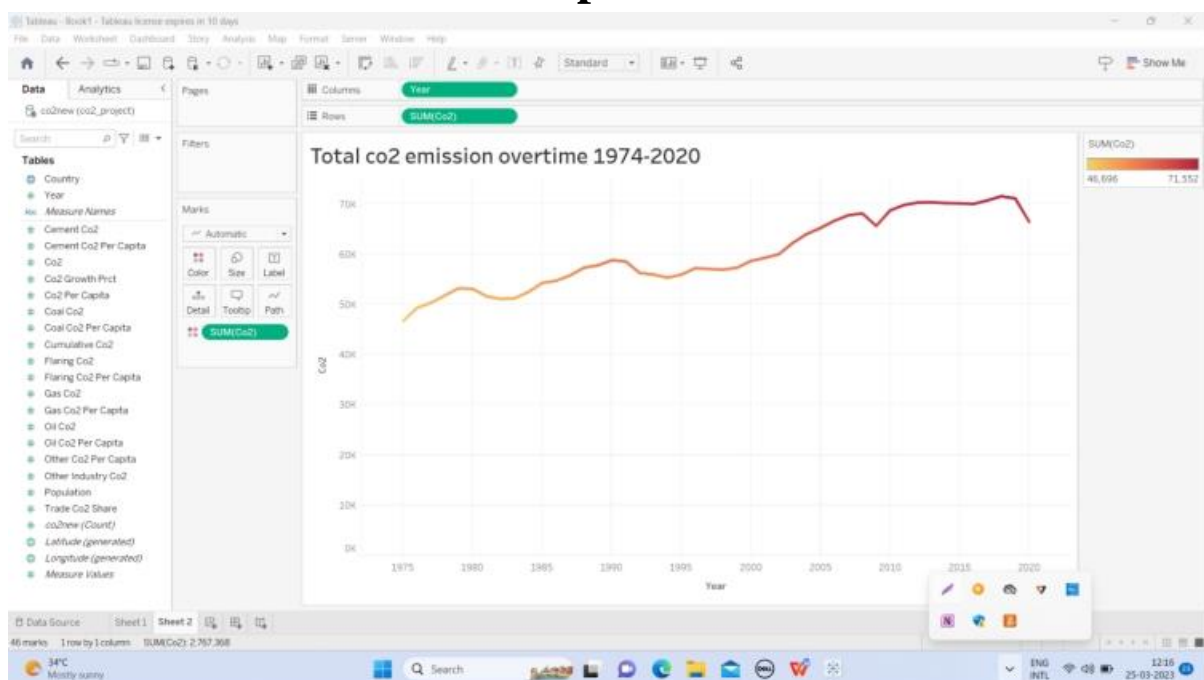
The number of unique visualizations that can be created with a given dataset. Some common types of visualizations that can be used to analyze the Co2 Emission include bar charts, line charts, Tree Map, scatter plots, pie charts, Maps etc. These visualizations can be used to compare performance, track changes over time, show Emission, and relationships between variables, breakdown of factors and emission by countries and continentals.

**Activity 1.1,1.2,1.3: To Understand- Total World Emission, Co2 Emission over Time,continentals, countries, specified year 2020.**

## Total Co2 Emission by top 50 countries



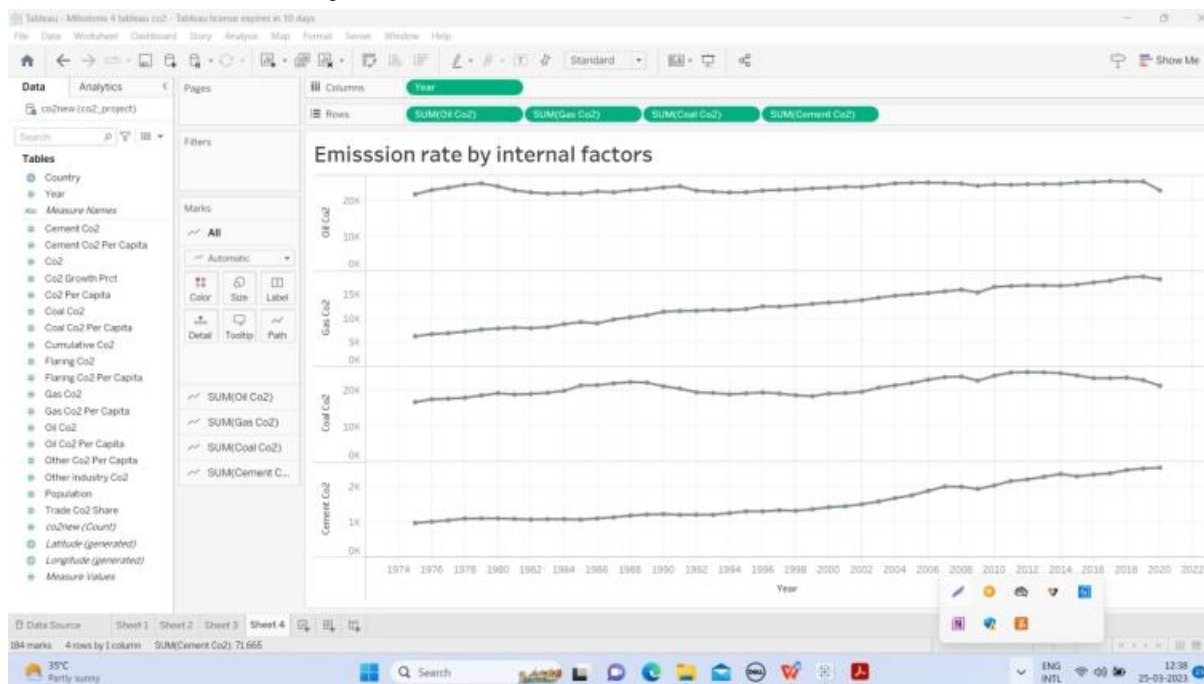
## Total co2 emission over the period 1974-2020



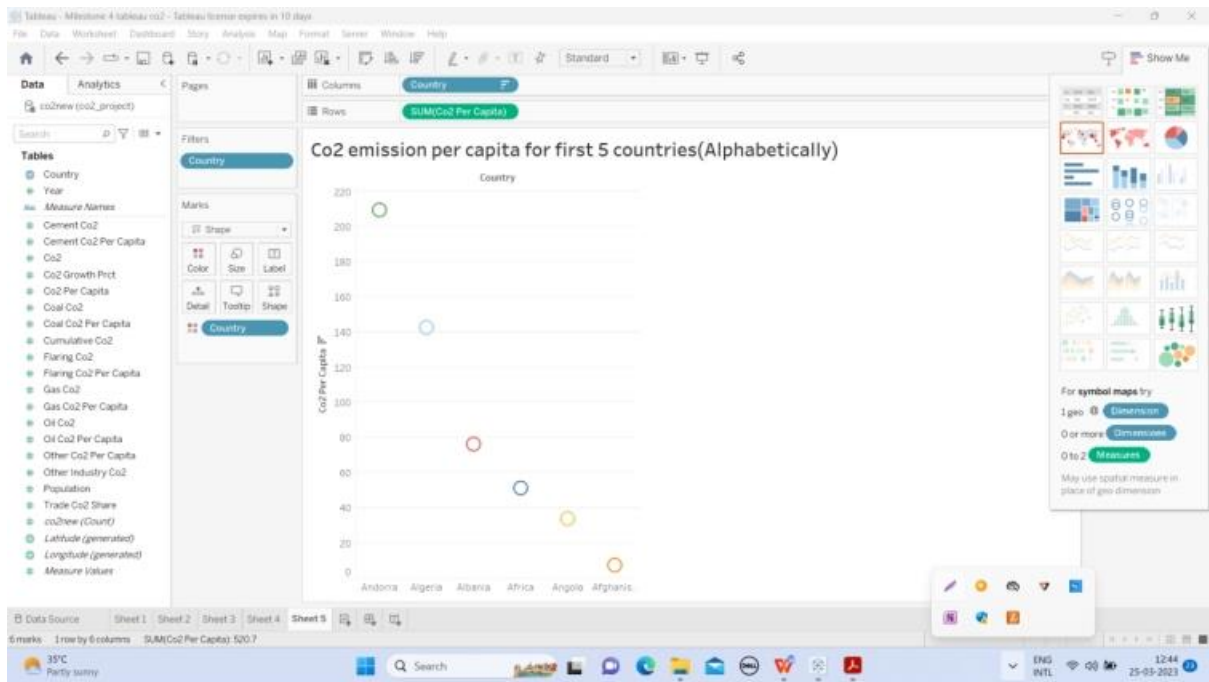
## Comparison view of Co2 emission by India and China



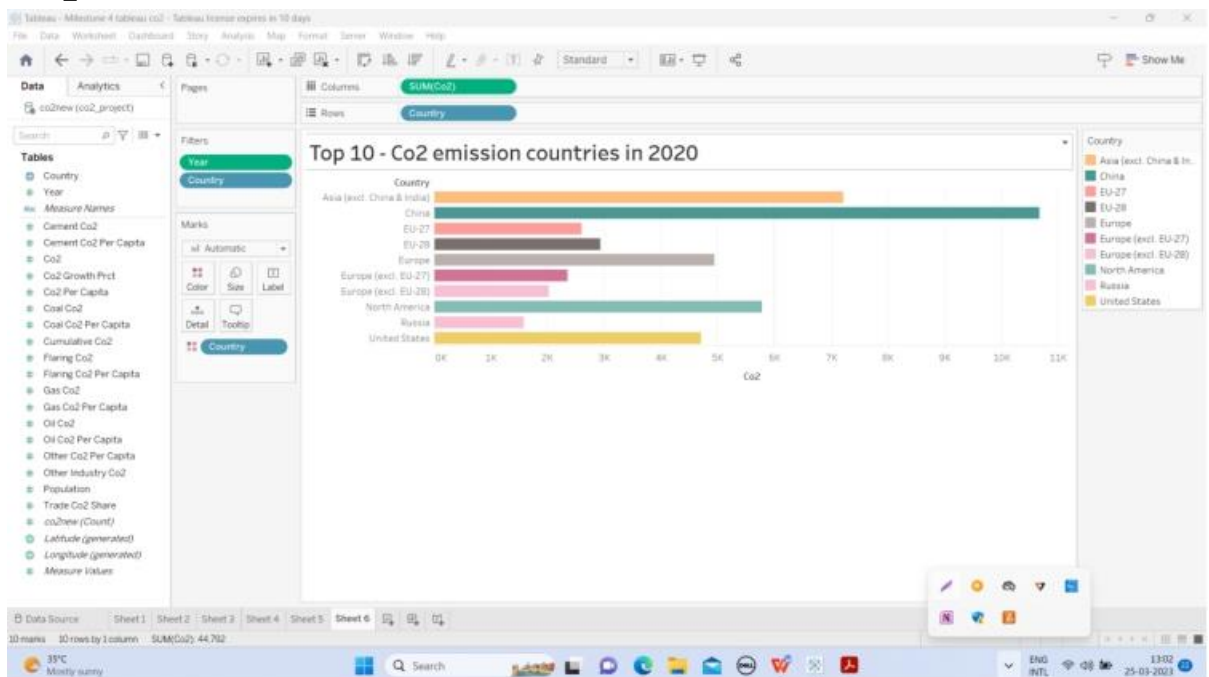
## Emission rate by various internal factors



## Co2 emission per capita for first 5 countries (Alphabetically)



## Top 10 countries in co2 emission in 2020



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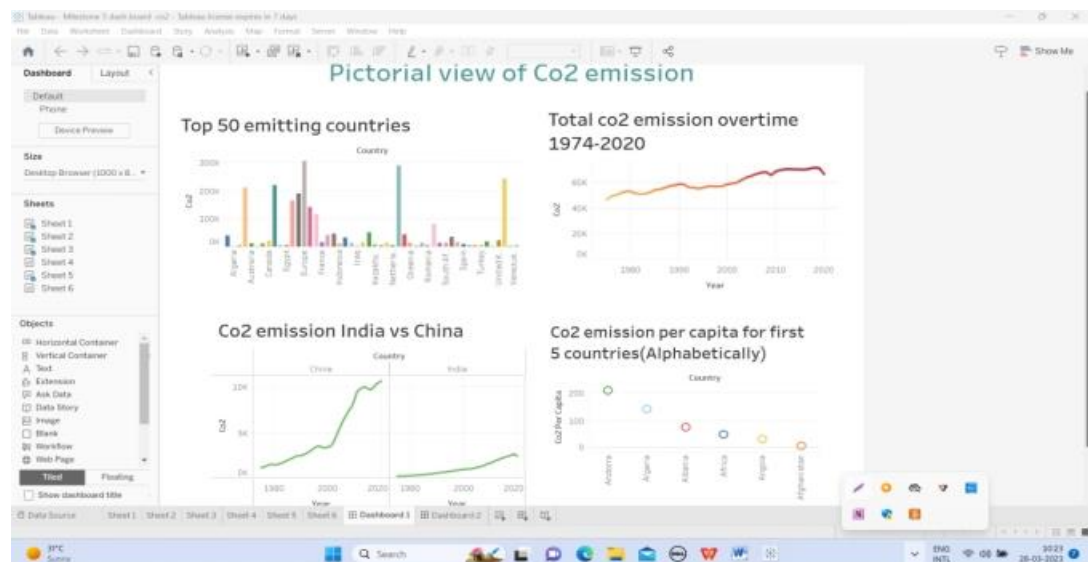
# **Milestone 5:**

## **Creation of Dashboards**

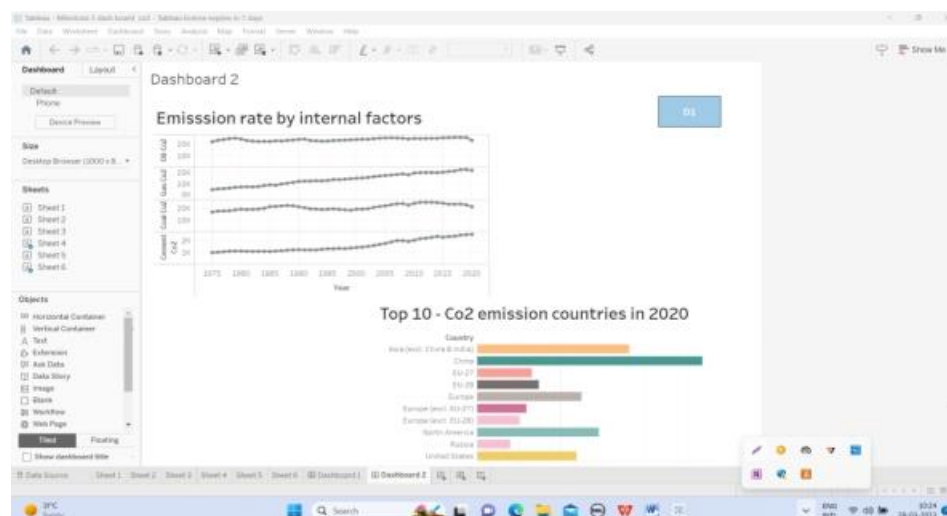
# Milestone 5: Creating the Dashboards using Tableau

We created the following two Dashboards

1. Full pictorial view of dash boards related to co2 emission.



2. A Dashboard is charted for the emission of co2 by various internal factors and top 10 countries regarding highest c02 emission



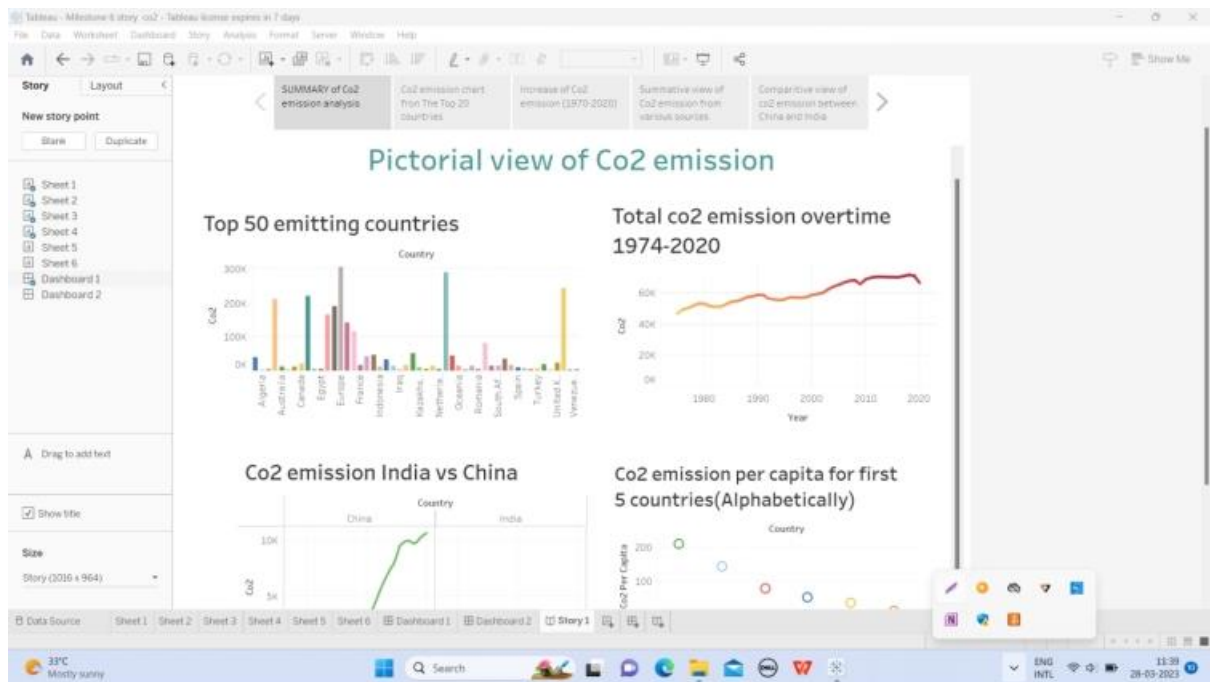
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**Milestone 6:**  
**Creating story for World**  
**Population**

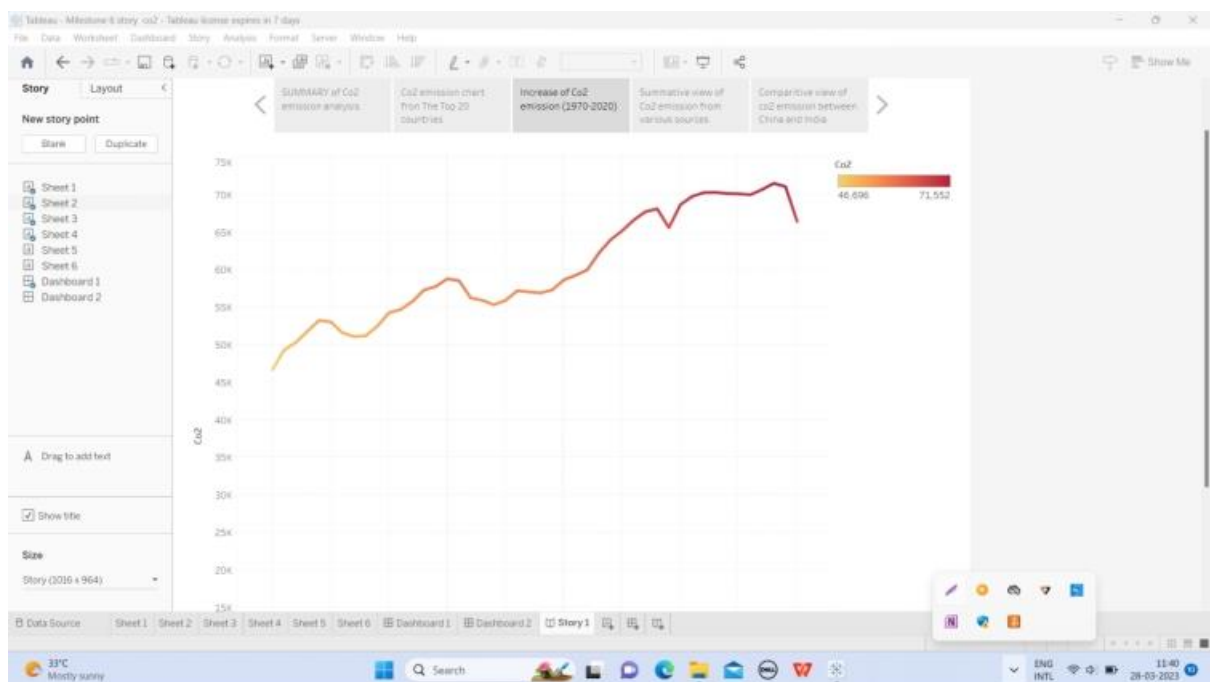


## Milestone 6: Creation of story using dashboards for co2 emission

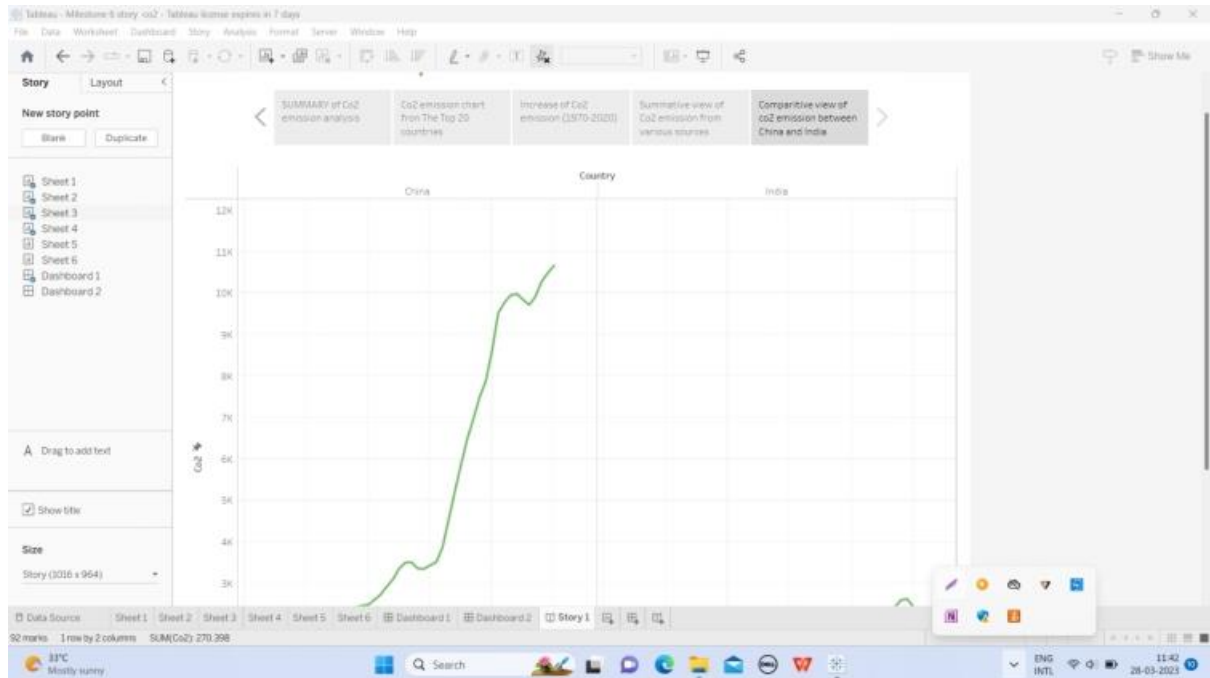
### 1. The story slide of Co2 emission with a summary



### 2. Increase of Co2 emission over the years 1970-2020 is given in the following slide.



### 3. The Comparison chart of co2 emission between China and India.



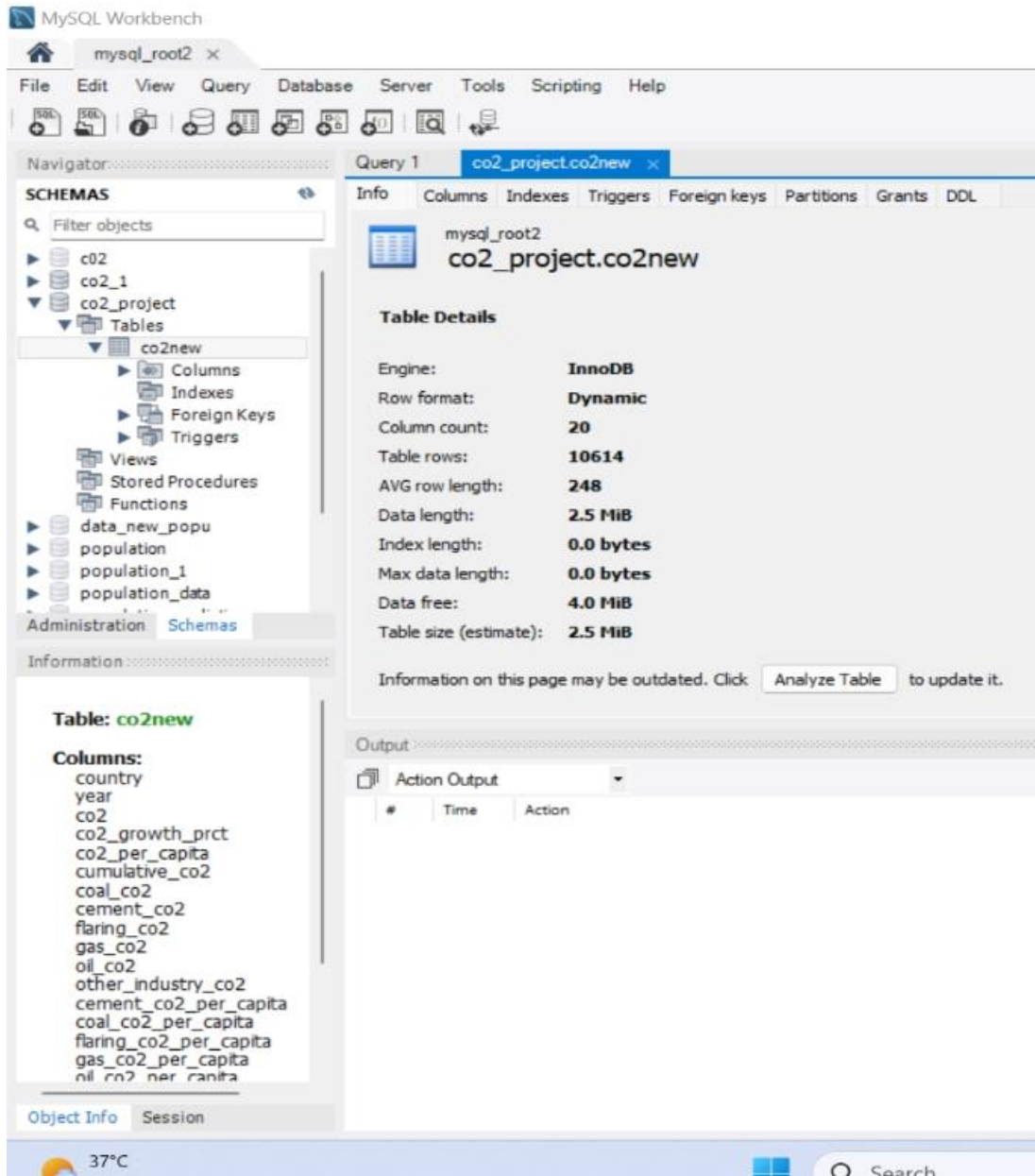
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**Milestone 7:**  
**Performance Testing for**  
**population**

## Milestone 7: Performance Testing for Co2 emission

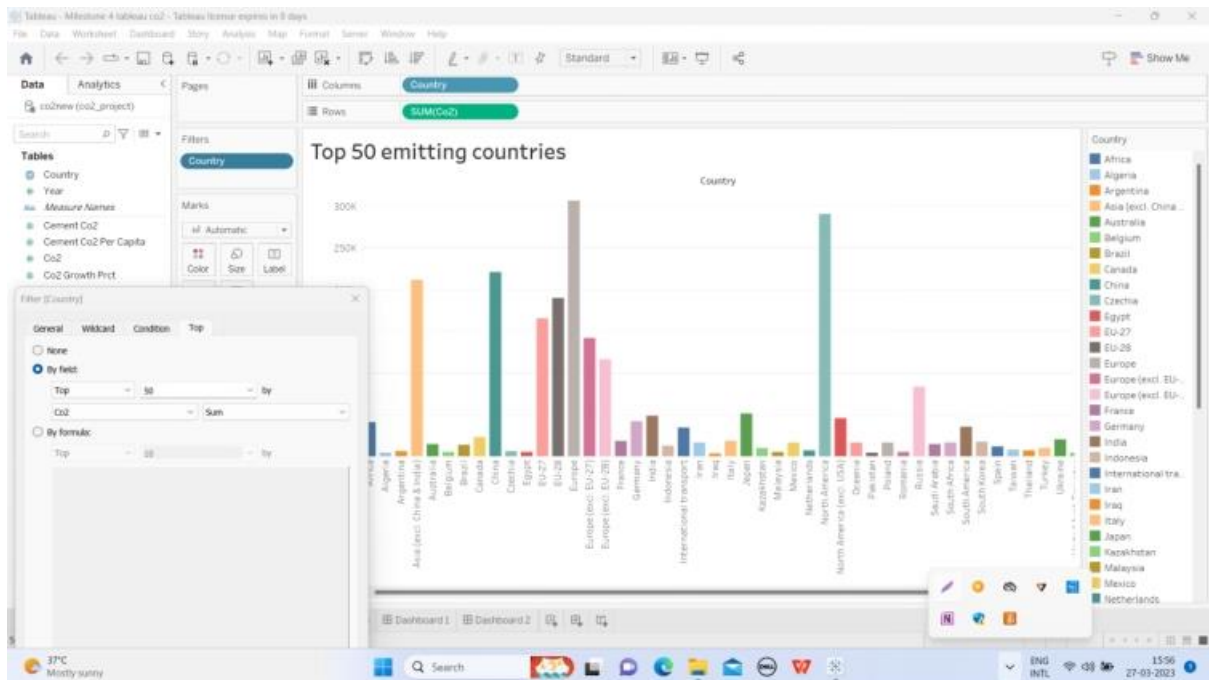
### Activity 1: Amount of Data Rendered to DB

**Solution 1:** The database schema for Co2 emission with columns and indexes are stored.



Solution 2:

The usage of filters in Co2 emission data is given in the following picture. Here we used the filters option to select the Top 50 countries.



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