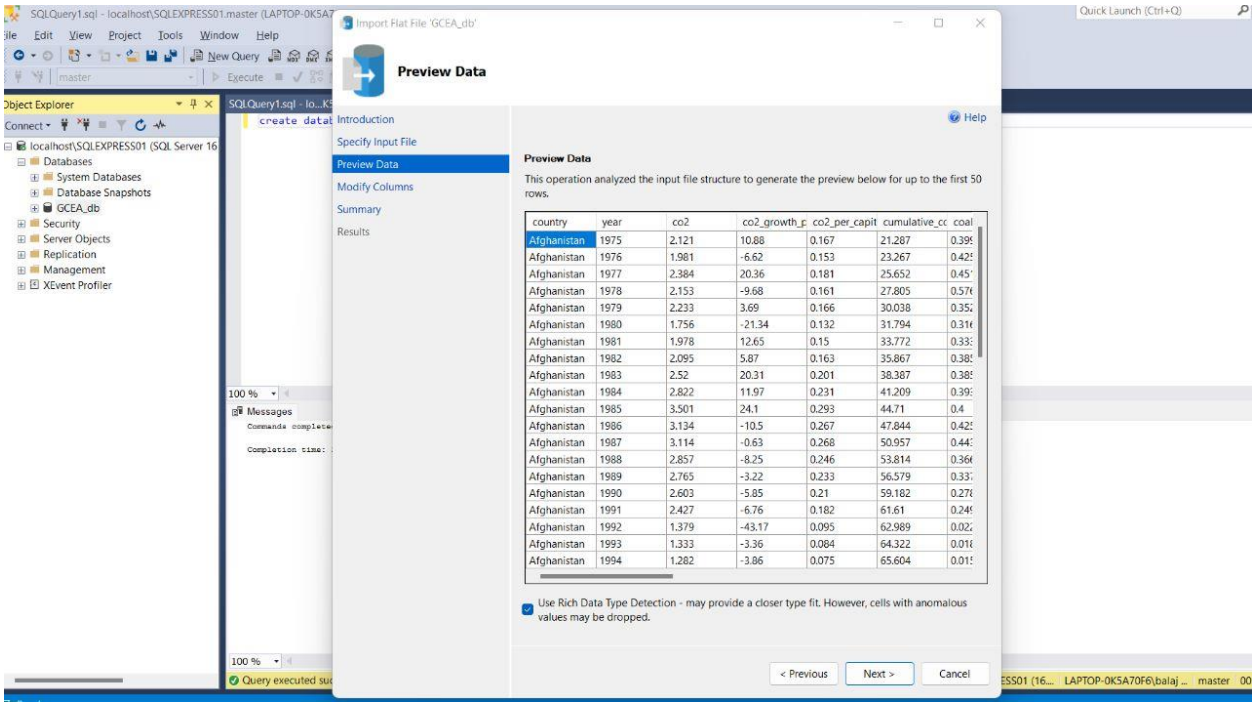
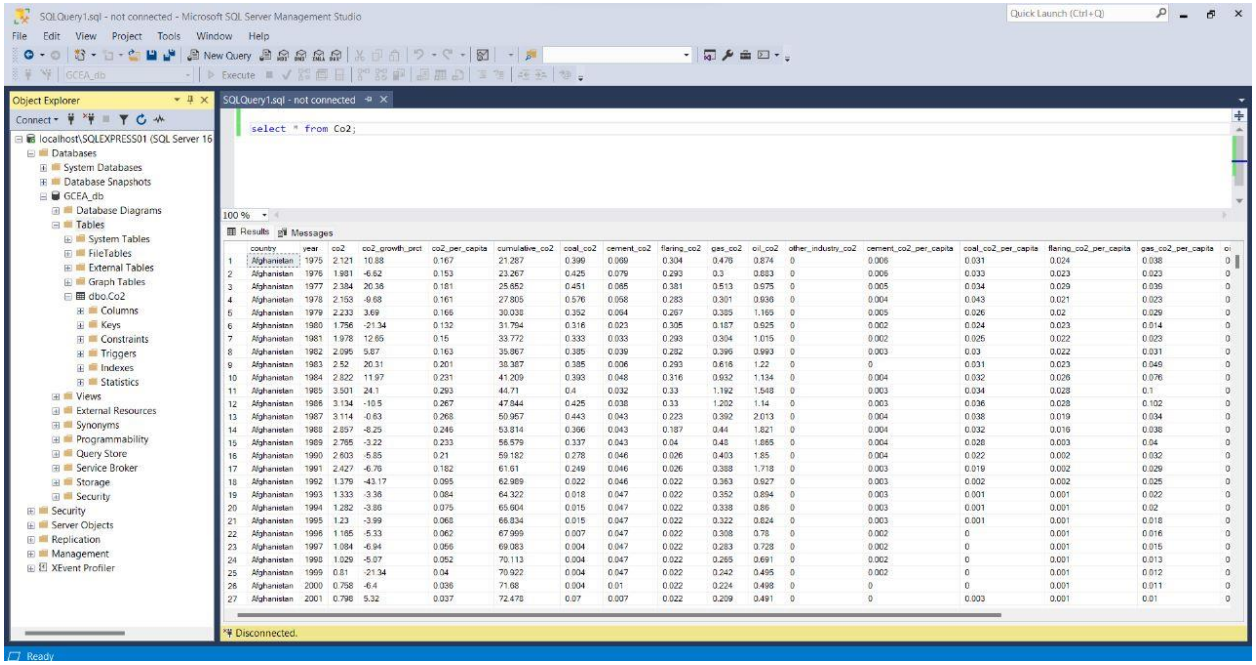
- # Data Collection & Extraction From Database

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.

Collect The Dataset

Please seeing this pictures which we created the manual of data se in the given below :





Understand The Data

Dataset consists CO2 emissions in metric ton per capita of every country around the world. The data is collected from 1975 to 2020. In this dataset Countries and regions are included. Data is initially pre-processed using excel.

The dataset contains

- Country- Country for which Co2 is Recorded
- Year- Year the data was recorded
- Co2 Emission (In Million Metric Tons)
- Co2 Growth per Capita
- Co2 Per Capita
- Cumulative Co2
- Several Fossil Fuels rate of Emission

Storing Data In DB & Connect DB With Tableau

We created the manual of DB and connect with tableau has given below link :

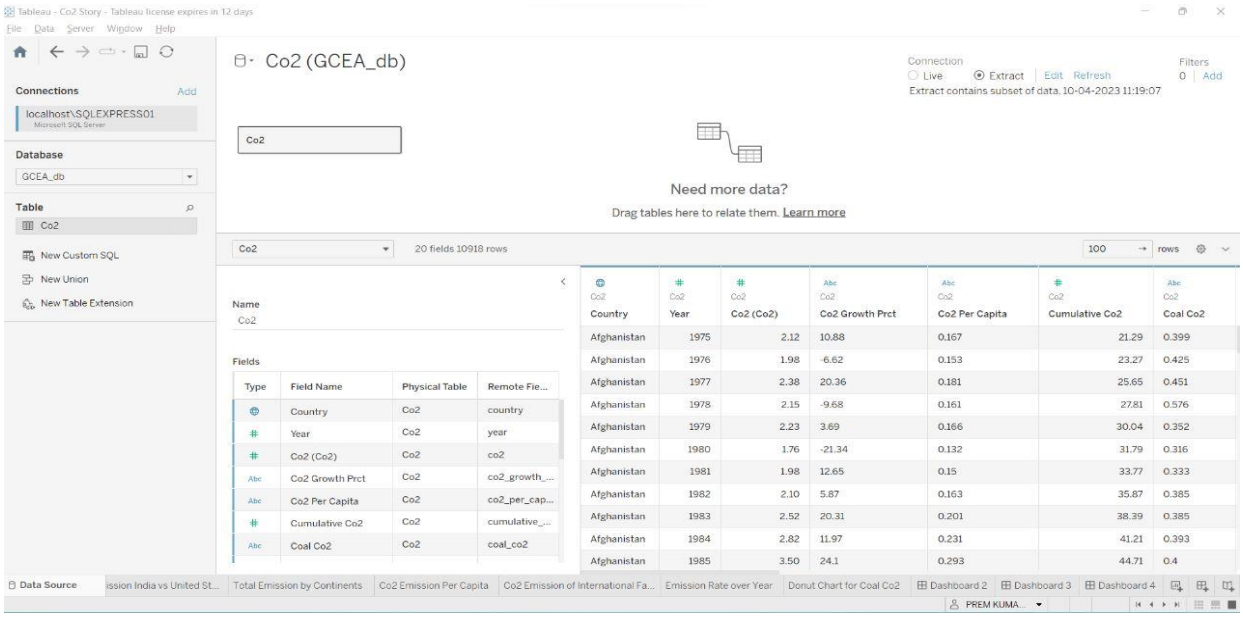
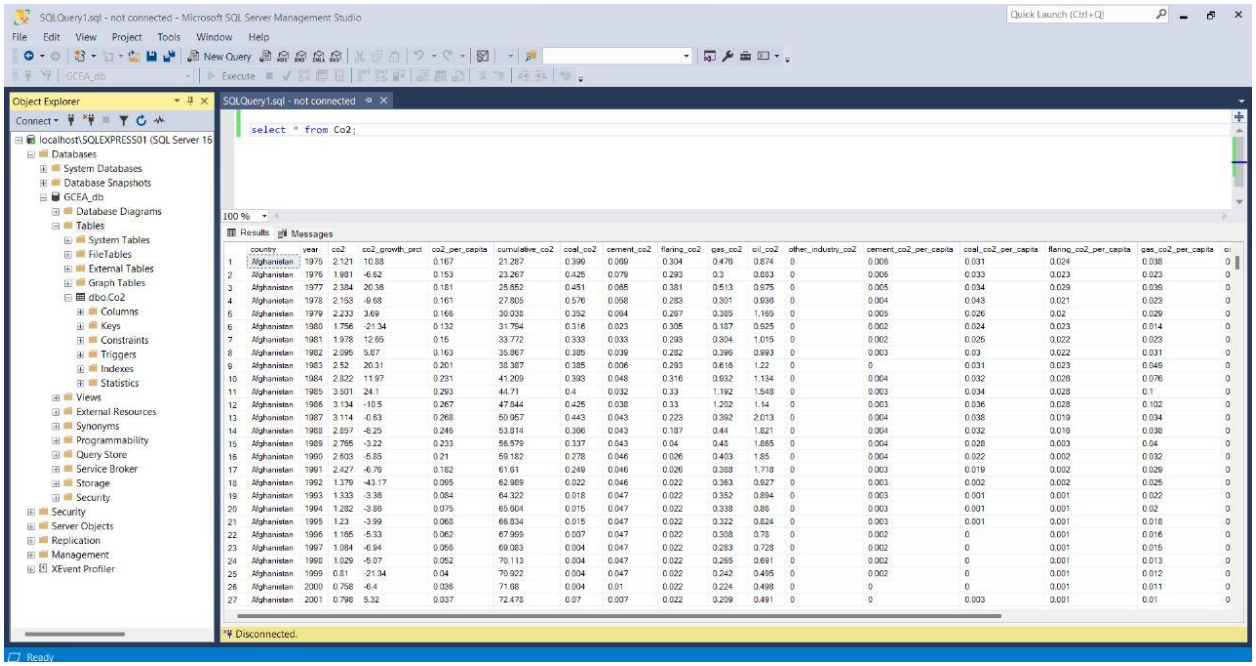


Tableau - Co2 Story - Tableau license expires in 12 days
File Data Server Window Help
Co2 (GCEA_db)
Connection
Live
Extract
Edit Refresh
Extract contains subset of data. 10-04-2023 11:19:07
Filters
0 Add
Connections Add
localhost\SQLEXPRESS01
Microsoft SQL Server
Database
GCEA_db
Table
Co2
New Custom SQL
New Union
New Table Extension
Co2
Need more data?
Drag tables here to relate them. Learn more
Co2
20 fields 10918 rows
100 rows
Name
Co2
Fields
Type Field Name Physical Table Remote Fie...
Country Co2 country
Year Co2 year
Co2 (Co2) Co2 co2
Co2 Growth Prct Co2 co2_growth_...
Co2 Per Capita Co2 co2_per_cap...
Cumulative Co2 Co2 cumulative_...
Coal Co2 Co2 coal_co2
Country Year Co2 (Co2) Co2 Growth Prct Co2 Per Capita Cumulative Co2 Coal Co2
Afghanistan 1975 2.12 10.88 0.167 21.29 0.399
Afghanistan 1976 1.98 -6.62 0.153 23.27 0.425
Afghanistan 1977 2.38 20.36 0.181 25.65 0.451
Afghanistan 1978 2.15 -9.68 0.161 27.81 0.576
Afghanistan 1979 2.23 3.69 0.166 30.04 0.352
Afghanistan 1980 1.76 -21.34 0.132 31.79 0.316
Afghanistan 1981 1.98 12.65 0.15 33.77 0.333
Afghanistan 1982 2.10 5.87 0.163 35.87 0.385
Afghanistan 1983 2.52 20.31 0.201 38.39 0.385
Afghanistan 1984 2.82 11.97 0.231 41.21 0.393
Afghanistan 1985 3.50 24.1 0.293 44.71 0.4
Data Source
Total Emission by Continents
Co2 Emission Per Capita
Donut Chart for Coal Co2
Dashboard 2
Dashboard 3
Dashboard 4


SQLQuery1.sql - not connected - Microsoft SQL Server Management Studio
File Edit View Project Tools Window Help
New Query
Object Explorer
Connect
localhost\SQLEXPRESS01 (SQL Server 16
Databases
System Databases
Database Snapshots
GCEA_db
Database Diagrams
Tables
System Tables
FileTables
External Tables
Graph Tables
dbo.Co2
Columns
Keys
Constraints
Triggers
Indexes
Statistics
Views
External Resources
Synonyms
Programmability
Query Store
Service Broker
Storage
Security
Security
Server Objects
Replication
Management
XEvent Profiler
SQLQuery1.sql - not connected
select * from Co2;
Results
Messages
country year co2 co2_growth_prct co2_per_capita cumulative_co2 coal_co2 cement_co2 flaring_co2 gas_co2 oil_co2 other_industry_co2 cement_co2_per_capita coal_co2_per_capita flaring_co2_per_capita gas_co2_per_capita
1 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
2 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
3 Afghanistan 1977 2.384 20.36 0.181 25.652 0.451 0.085 0.381 0.513 0.675 0 0.005 0.034 0.029 0.039
4 Afghanistan 1978 2.153 -9.68 0.161 27.805 0.576 0.058 0.283 0.301 0.938 0 0.004 0.043 0.021 0.023
5 Afghanistan 1979 2.233 3.69 0.166 30.038 0.352 0.094 0.267 0.385 1.165 0 0.005 0.026 0.02 0.029
6 Afghanistan 1980 1.756 -21.34 0.132 31.794 0.316 0.023 0.305 0.187 0.525 0 0.002 0.024 0.023 0.014
7 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
8 Afghanistan 1982 2.095 5.87 0.163 35.867 0.385 0.039 0.282 0.399 0.993 0 0.003 0.03 0.022 0.031
9 Afghanistan 1983 2.52 20.31 0.201 38.387 0.385 0.006 0.293 0.618 1.22 0 0 0.031 0.023 0.049
10 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
11 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
12 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
13 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
14 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
15 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
16 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
17 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
18 Afghanistan 1992 1.379 -43.17 0.095 62.989 0.022 0.046 0.022 0.363 0.827 0 0.003 0.002 0.002 0.025
19 Afghanistan 1993 1.333 -3.38 0.084 64.322 0.018 0.047 0.022 0.352 0.894 0 0.003 0.001 0.001 0.022
20 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
21 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
22 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
23 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
24 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
25 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 0.012
26 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 0.011
27 Afghanistan 2001 0.798 5.32 0.037 72.478 0.07 0.007 0.022 0.209 0.491 0 0 0.003 0.001 0.01
Disconnected.
Ready