Analyse *U.S Pollution* dataset and make informative output out of it.

US Pollution:

Air pollution is the contamination of air due to the presence of substances in the atmosphere that are harmful to the health of humans and other living beings, or cause damage to the climate or to materials.

This dataset provides you the pollution in the U.S. It contains daily data for the four major pollutants NO2, O3, SO2 and CO each has 5 specific columns during 2006 and 2010.

Abbreviations: Carbon Monoxide (CO), Ozone (O3), Sulphur Dioxide (SO2), Nitrogen Dioxide (NO2) The four pollutants (NO2, O3, SO2 and O3) each has 5 specific columns.

- State names: Lists of state names in US
- State code: Code numbers belongs to each state
- County code: Unique code numbers specified for county
- Site number: numbers given to the sites
- Address: The Address of each locality where pollutant has been detected
- Country names: List of county names
- City names: Names of city
- Date local: Day Month and the year of every local area when pollutant took place and the hierarchy
- NO2 units: Units represented by Parts Per Billion, NO2 mean, NO2 1st MAX value, NO2 1st MAX hour, NO2 AQI
- O3 units: Units represented by parts per million, O3 mean, O3 1st MAX value, O3 1st MAX hour, O3 AQI
- SO2 units: Units represented by Parts Per Billion, SO2 mean, SO2 1st MAX value, SO2 1st MAX hour, SO2 AQI
- CO units: Units represented by parts per million, CO2 mean, CO2 1st MAX value, CO2 1st MAX hour, CO2 AQI

NOTE: Replace all null values to 0

After understanding/visualizing the data, design a report for the U.S Pollution review information. Make sure to create interactive insights.

Below are the information/demands to be performed in desktop in order to meet requirement:

Page 1: Overview

- Create text boxes to display all 4 category pollutants and give the *action*-page navigation.
- Create Slicers to display states, cities, counties and so on...
- Need only the years which has been affected by pollution (you can use a slicer)
- Create a filled map to show only US States

- Generate a table display county names along with codes
- Create Quarter-wise bifurcation of all 4 pollutants.

Page 2: [Name as **Carbon Monoxide**] for page navigation and create these below things

Carbon monoxide is a colourless, highly poisonous, odourless, tasteless, flammable gas that is slightly less dense than air.

- Top 10 states with highest CO pollutants
- Find out the 1st maximum hour for CO and use the card
- Find out the 1st maximum value for CO, use a card
- Use a card and show the CO units been calculated per
- Create a table to show the Carbon Monoxide present in AQI for each state codes and display the highest in RED, lowest In GREEN by applying settings to background
- Create a chart to display Maximum CO present in each state
- Get the CO in AQI for each year show it using line chart
- Find the top 1 CO pollutant city present in air
- Add a slicer to display states which can be interactive with these pollutants
- Use Sync Slicer to select the range(date) and find out the highest, lowest pollutants and maximum Carbon Monoxide available in air

Page 3: [Name as **Ozone**] for page navigation and create these below things

Ozone is a gas. High in the atmosphere, it protects us from UV radiation. But at ground level, ozone is a pollutant.

- Top 10 states with highest O3 pollutants
- Find out the 1st maximum hour for Ozone and use the card
- Find out the 1st maximum value for Ozone, use a card
- Use a card and show the Ozone units been calculated per
- Create a table to show the Ozone present in AQI for each state codes and display the highest in RED, lowest In GREEN by applying settings to background
- Create a chart to display Maximum O3 present in each state
- Get the O3 in AQI for each year show it using line chart
- Find the top 1 O3 pollutant city present in air
- Add a slicer to display states which can be interactive with these pollutants
- Use sync Slicer to select the range(date) and find out the highest, lowest pollutants and maximum Ozone available in air

Page 4: [Name as **Sulphur Dioxide**] for page navigation and create these below things

Sulphur dioxide is a gas. Breathing it in can irritate your nose, throat and lungs. Sulphur dioxide is a common air pollutant.

- Top 10 states and cities with highest SO2 pollutants
- Find out the 1st maximum hour for Sulphur Dioxide and use the card
- Find out the 1st maximum value for Sulphur Dioxide, use a card
- Use a card and show the Sulphur Dioxide units been calculated per
- Create a table to show the Sulphur Dioxide present in AQI for each state codes and display the highest in RED, lowest In GREEN by applying settings to background
- Create a chart to display Maximum SO2 present in each state
- Get the SO2 in AQI for each year show it using line chart
- Find the top 1 SO2 pollutant city present in air

- Use Sync Slicer to select the range(date) and find out the highest, lowest pollutants and maximum SO2 available in air
- Add a slicer to display states which can be interactive with these pollutants

Page 5: [Name as **Nitrogen Dioxide**] for page navigation and create these below things

NO_2 is an intermediate in the industrial synthesis of nitric acid, millions of tons of which are produced each year for use primarily in the production of fertilizers.

- Top 10 states with highest NO2 pollutants
- Find out the 1st maximum hour for Nitrogen Dioxide, use the card
- Find out the 1st maximum value for Nitrogen Dioxide, use a card
- Use a card and show the Nitrogen Dioxide units been calculated per
- Create a table to show the Nitrogen Dioxide present in AQI for each state codes and display the highest in RED, lowest In GREEN by applying settings to background
- Create a chart to display Maximum NO2 present in each state
- Get the NO2 in AQI for each year show it using line chart
- Use Sync Slicer to select the range(date) and find out the highest, lowest pollutants and maximum Nitrogen Dioxide available in air
- Add a slicer to display states which can be interactive with these pollutants

You can add as much as information on your report by using this data.

Note: Remember that the visuals should be relevant