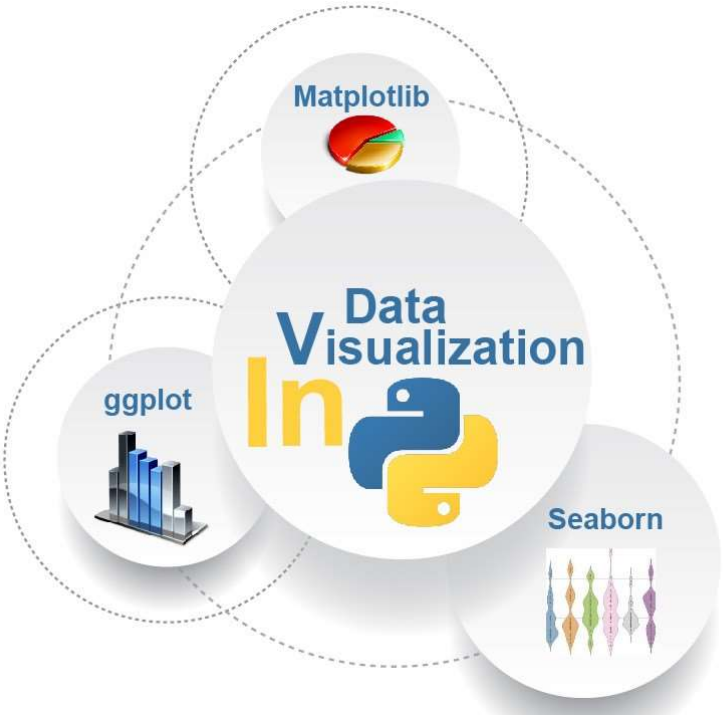
PYTHON FUNDAMENTALS: A COMPREHENSIVE TRAINING

(https://github.com/binatnadata/event2-python-ERME_CLUB/tree/main)

Python labs -By Binatna Data-

- **Sessions of December 2023**
- **Session of 31/12/2023**



(https://github.com/binatnadata/event2-python-ERME_CLUB/tree/main)

Exercice 1

1. Load the csv file named "energies_over_time.csv"
2. print the `HEAD` , the `TAIL`
3. Print this informations: `columns names` , dataframe `size` , `dtype` , `chape` , dataframe `information`
4. rename the column name "Energy" by "E"
5. check for `duplacted rows` , `nan rows` , if exist `drop` em
6. Create a line chart using Matplotlib to visualize the trend in `solar panel energy production` over the given `dates` . Label the `x-axis` as "Date" and the `y-axis` as "Energy Production (kWh)". Choose an appropriate `title` for the chart.

Exercice 2

1. Create new column named `Year` generated from the column `Date` .
2. Groupe by Year and calculate the sum of energies for each year, name the result as `df2` .
3. Print the `df2` dataframe (select only the column "E").
4. Use `df2` to create a `bar chart` to compare the energy production on different `Years` . Each `bar` should represent a specific `Year` . Label the `x-axis` as "Date" and the `y-axis` as "Energy Production (kWh)". Provide a suitable `title for the chart` . Then Save the plot as a `png` image.
5. Create a `pie chart` instead of a `bar chart` , Then Save the plot as a `png` image.
