

## PRODUCTION AND USAGE OF RENEWABLE ENERGY

"The focus of the goal is to provide access to affordable, reliable and modern energy services and increasing the total part of renewable energy at the global level."

### OBJECTIVES

- To study the energy intensity measured in terms of primary energy and GDP to know dependency on primary energy among countries.
- To investigate the usage of renewable energy in total energy consumption to know progress and development of countries.
- To examine the proportion of population with relying on clean fuels and technology to enhance perception about awareness of people of different regions.
- To analyze the installed renewable energy generating capacity in developing countries showing the advancements of technologies.

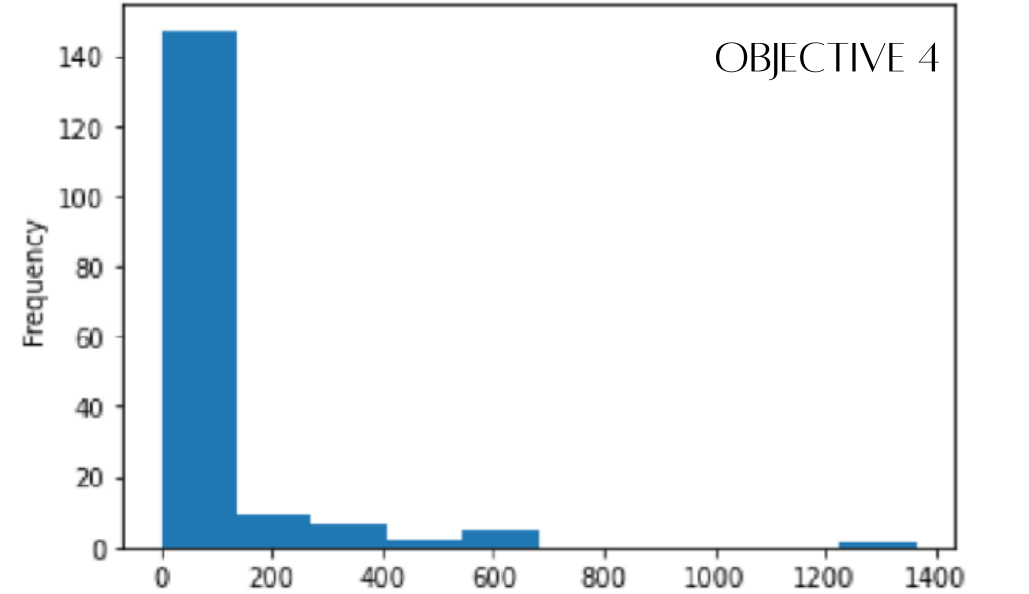
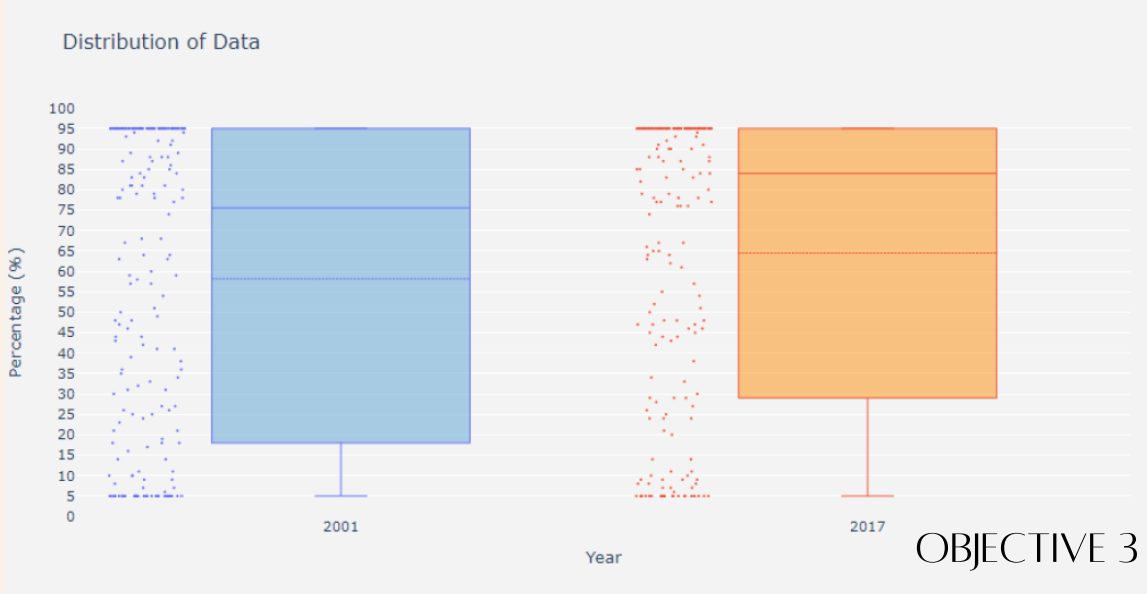
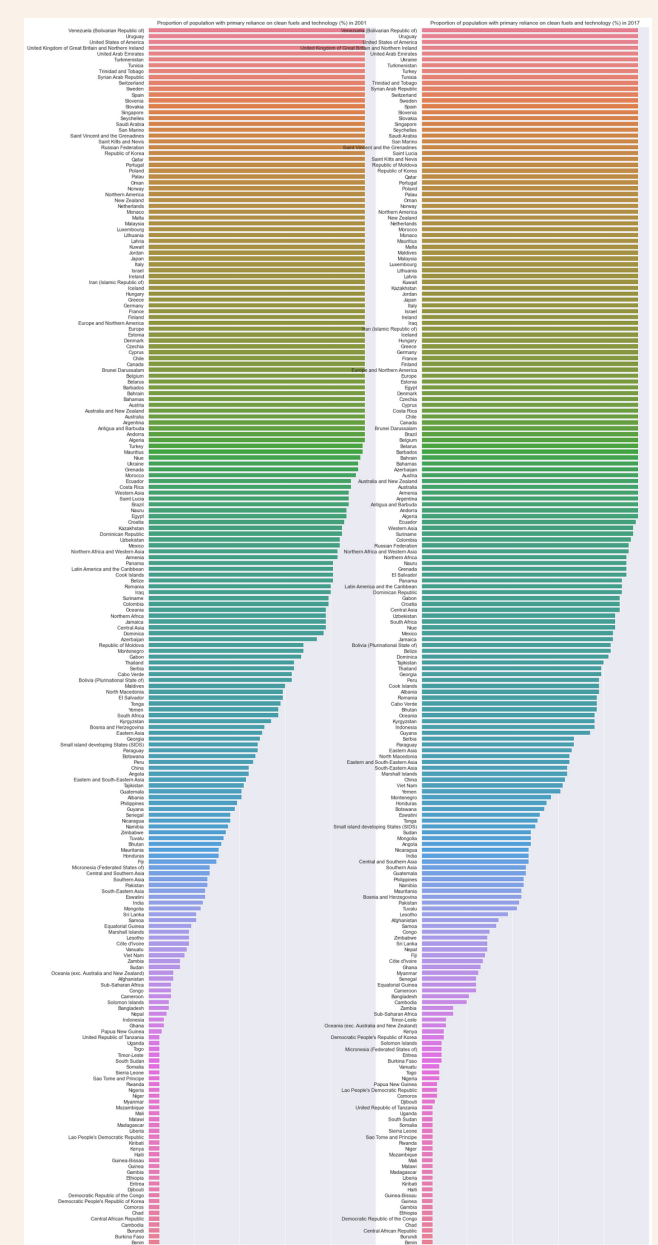
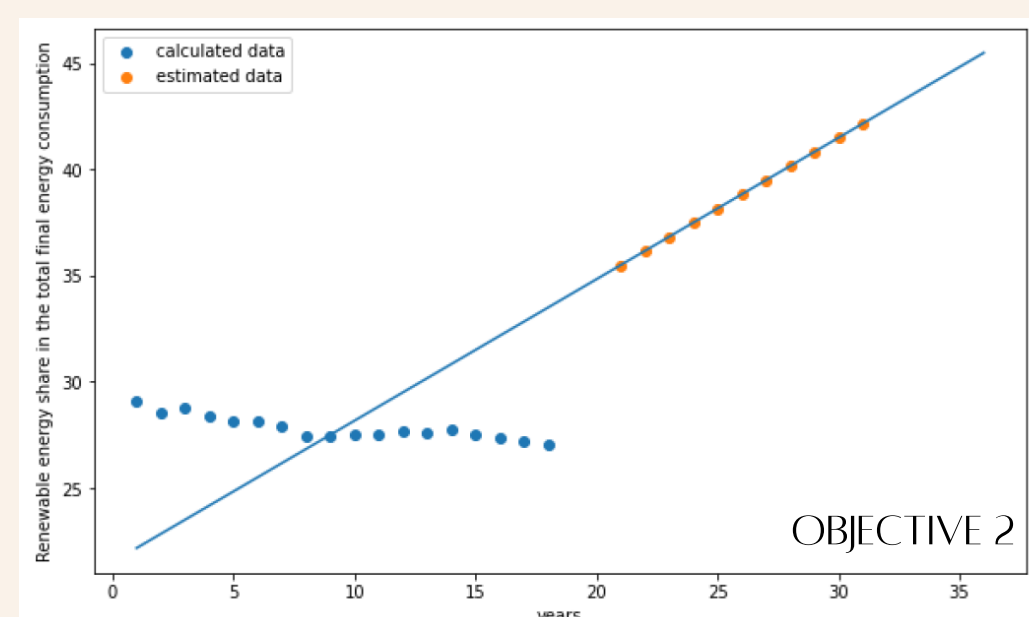
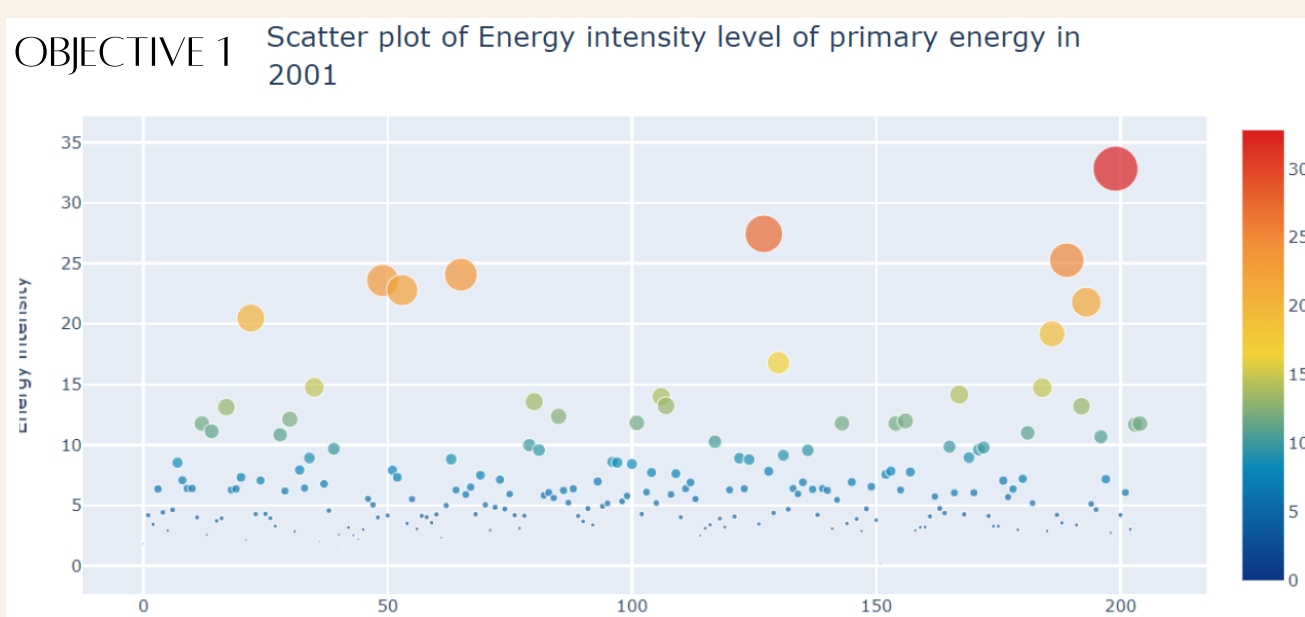
### CONCEPTS, TOOLS AND TECHNOLOGIES

- Statistics
- Regression
- Co-relation
- Python Libraries
- Ranking of matrix
- Mean and proportion hypothesis test



### METHODOLOGY

- We began by selecting the Goal and defining the appropriate objectives.
- We gathered and refined (cleaning) the data found on different sites.
- After, we started conceptualizing about the ideas required for investigating the objectives and read some facts provided in the research papers and reports.
- We contemplated the goal altogether by visualizing the data and verified the claims. In the later part, we anticipated the completion of the objective by the UN by 2030 through regression. Furthermore we ranked the continents according to their progress in matching the completion timeline and made a progress report of the different regions.
- Working on the datasets, we developed methods to analyze them. Finally, we got clarification on the facts provided and predictions mentioned by the UN.



### CONCLUSION

After performing all the tests, a decrement of 1.48% from 2001 to 2017 of energy intensity, the contribution of renewable energy in Total energy has increased, the proportion of population relying on clean fuel is 50% in 2001 and 62% in 2017 & installed renewable electricity generating capacity (watts per capita) is 65.202 in 2001 and 188.01 in 2017 is observed. Targets made by the UN can be achieved by the given timeline if we focus on some of the countries.