
Jio
Institute

# Data Visualization Final Project

Abhishek | Neil | Sanket | Udaya
Prof: Vidya Setlur

# Introduction

**Dashboard –**

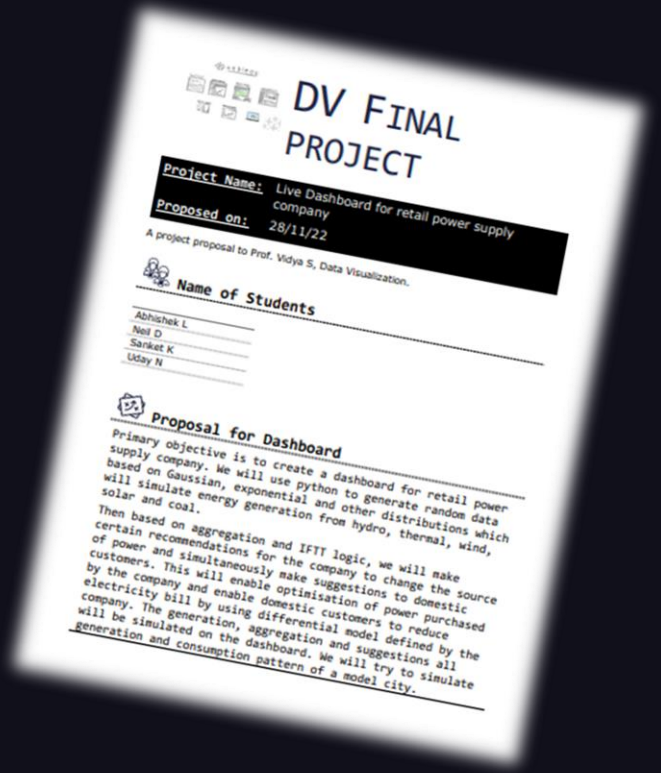
- Dashboard for retail power supply company.

**Team Members –**

- Abhishek L
- Neil D
- Sanket K
- Udaya N

**Tool Used –**

- Tableau
- Python (Py-tab)



DV FINAL PROJECT

Project Name: Live Dashboard for retail power supply company

Proposed on: 28/11/22

A project proposal to Prof. Vidya S, Data Visualization.

Name of Students

Abhishek L
Neil D
Sanket K
Uday N

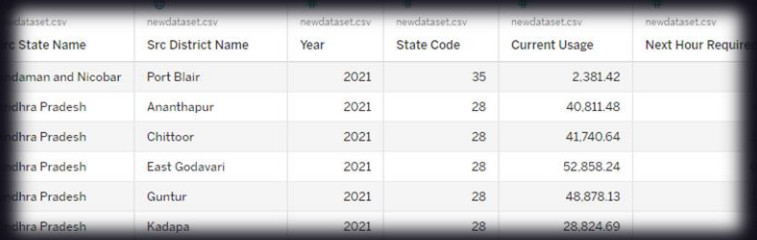
Proposal for Dashboard

Primary objective is to create a dashboard for retail power supply company. We will use python to generate random data based on Gaussian, exponential and other distributions which will simulate energy generation from hydro, thermal, wind, solar and coal.

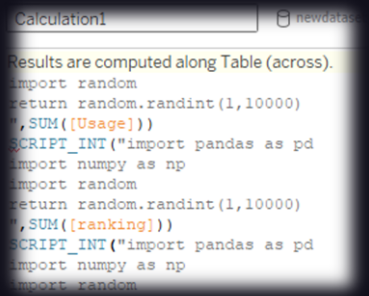
Then based on aggregation and IFTT logic, we will make certain recommendations for the company to change the source of power and simultaneously make suggestions to domestic customers. This will enable optimisation of power purchased by the company and enable domestic customers to reduce electricity bill by using differential model defined by the company. The generation, aggregation and suggestions all will be simulated on the dashboard. We will try to simulate generation and consumption pattern of a model city.

# Data

We have used python to generate random data based on a pattern available in India's electricity consumption. Data generation is in Tableau using server extensions tool Py-tab.

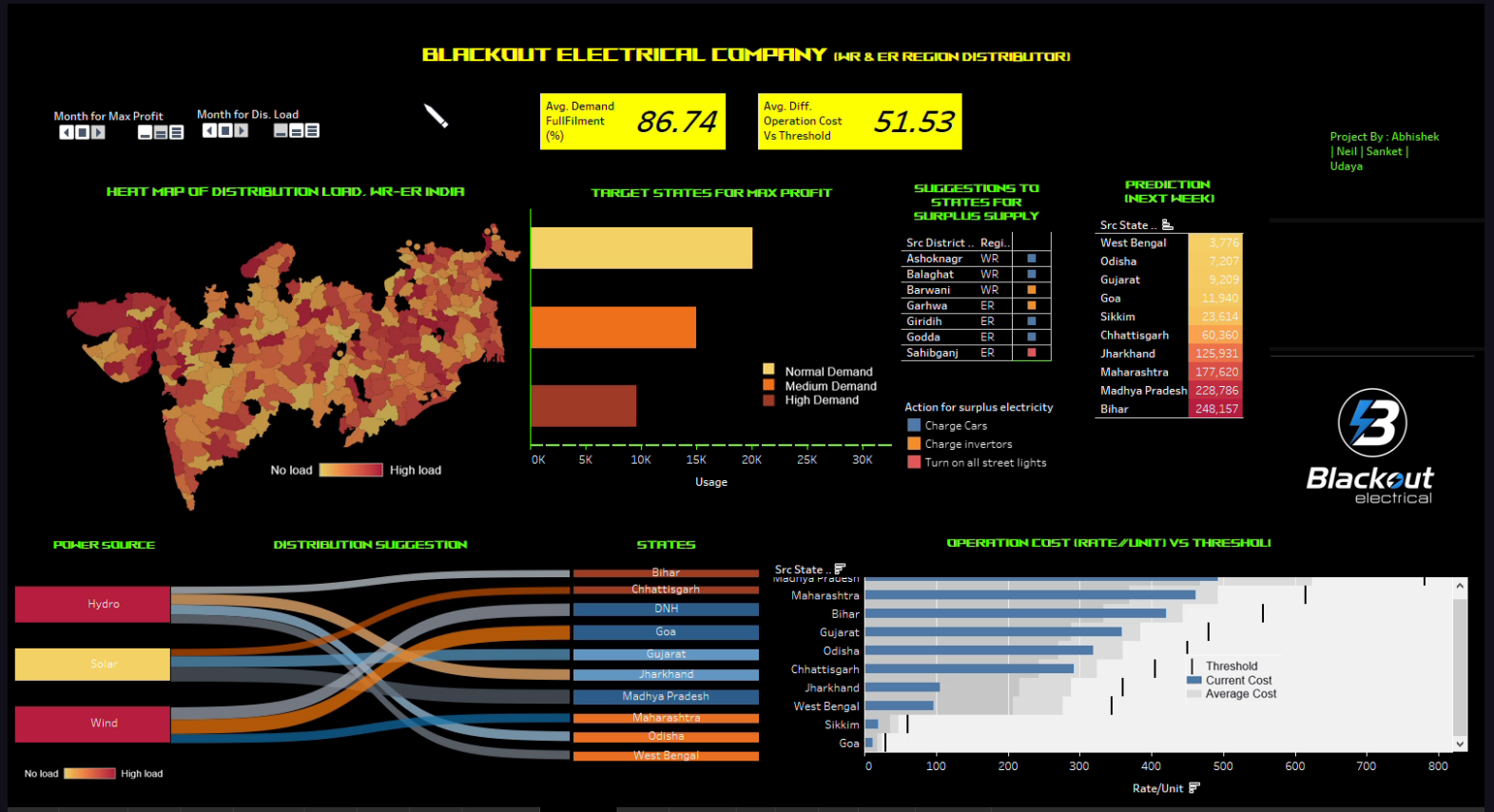


| State Name | Src District Name | Year | State Code | Current Usage | Next Hour Require |
|---|---|---|---|---|---|
| daman and Nicobar | Port Blair | 2021 | 35 | 2,381.42 | |
| dhra Pradesh | Ananthapur | 2021 | 28 | 40,811.48 | |
| dhra Pradesh | Chittoor | 2021 | 28 | 41,740.64 | |
| dhra Pradesh | East Godavari | 2021 | 28 | 52,858.24 | |
| dhra Pradesh | Guntur | 2021 | 28 | 48,878.13 | |
| dhra Pradesh | Kadapa | 2021 | 28 | 28,824.69 | |



```
Calculation1
Results are computed along Table (across).
import random
return random.randint(1,10000)
,SUM([Usage]))
SCRIPT_INT("import pandas as pd
import numpy as np
import random
return random.randint(1,10000)
,SUM([ranking]))
SCRIPT_INT("import pandas as pd
import numpy as np
import random
```

# Dashboard Demo



# Learnings

- Theme based Dashboard Making
- Using Python for Data Generation and Aggregation
- Creation of advanced charts in tableau
- Animation and live server connection

Jio Institute

# Thank you!