

## WiDS '22 - '23 Final Documentation



# <Project UID :2 – Data analytics using Python> <Aditya Prakash>



Team Member Name	Roll Number	Email-Id
Faiz Alam	22M1440	faiz.alam.iitb@gmail.com

### Introduction to Problem Statement

The problem is to analyze a dataset in order to understand patterns and trends in the data. This may involve identifying important variables, identifying outliers or anomalies, and visualizing the data in order to make it more easily understandable. The goal of the analysis may be to identify potential areas for improvement or to make predictions about future behavior. The data may come from a variety of sources, such as surveys, financial data, or sensor data.

### Existing Resources

There are many resources available for data analysis using Python, including libraries, frameworks, and tutorials. Some popular libraries for data analysis include:

1. Pandas
2. NumPy
3. Scikit-learn
4. Matplotlib
5. Seaborn
6. Plotly

### Proposed Solution

The proposed solution for data analysis using Python will depend on the specific problem and dataset at hand. However, a general approach might include the following steps: Loading and cleaning the data, Exploratory data analysis, Feature engineering, Modeling, Evaluation and Optimization and Deployment.

## Methodology & Progress (Mention the work done week-wise)

1st week: Learn about how to define problems, Collect and Prepare Data and python programming language  
2nd week: Learn about Python Libraries – Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Plotly  
3rd week: 1. Done data analysis of India GDP 1960-2022  
2. Done data analysis of Netflix data  
3. Done data analysis of train and test

## Results

[https://github.com/Faiz1440/data\\_analysis\\_faiz](https://github.com/Faiz1440/data_analysis_faiz)

## Learning Value

Data analysis using Python can offer many valuable learning opportunities for individuals interested in data science and analytics. Some of the key learning values include:

Understanding of Data, Problem-solving, Programming and Technical Skills, Tools and Frameworks, Data Visualization, Machine Learning, Business Understanding and Communication.

## Tech-stack Used

Programming language Python, Python libraries - Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Plotly

## Suggestions for others

## Contribution by each Team Member

Done this project by myself with the help mentor

## References and Citations

[https://numpy.org/doc/stable/user/absolute\\_beginners.html](https://numpy.org/doc/stable/user/absolute_beginners.html)

[https://pandas.pydata.org/docs/getting\\_started/intro\\_tutorials/index.html](https://pandas.pydata.org/docs/getting_started/intro_tutorials/index.html)

[https://matplotlib.org/stable/tutorials/introductory/quick\\_start.html](https://matplotlib.org/stable/tutorials/introductory/quick_start.html)

<https://seaborn.pydata.org/tutorial.html>