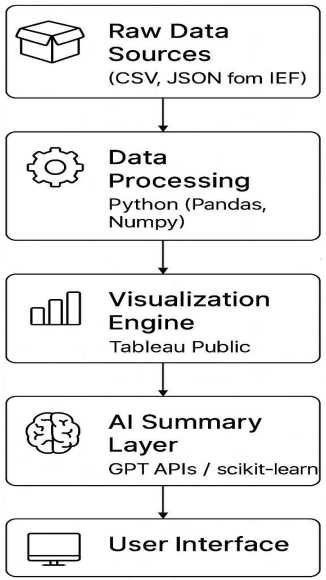
Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	29 June, 2025
Team ID	LTVIP2025TMID49302
Project Name	Measuring the Pulse of Prosperity: An Index of Economic Freedom Analysis
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



Guidelines:

- Include all the processes (As an application logic / Technology Block)
- Provide infrastructural demarcation (Local / Cloud)
- Indicate external interfaces (third party API's etc.)
- Indicate Data Storage components / services
- Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies

S.No	Component	Description	Technology
1.	User Interface	Interactive dashboard interface for users	Tableau Public
2.	Data Cleaning Logic	Data wrangling and formatting pipeline	Python (Pandas/Numpy)
3.	Summary Logic	Country-Wise summaries, Optional prediction modelling	Python (Transformers, scikit-learn)
4.	Visualization Framework	Storytelling through dashboards, filters, and captions	Tableau
5.	Database Layer	Storage and Transformation of cleaned economic data	CSV/JSON formats(local)
6.	Hosting	Public Visualization hosting and sharing	Tableau Public/ GitHub Pages
7.	Source Repository	Project Versioning submissions, collaboration	GitHub

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Python libraries, Tableau Public, GitHub pages	Pandas, Numpy, scikit-learn, Streamlit
2.	Security Implementations	Public Read-only access, no user input or sensitive storage involved	GitHub access controls
3.	Scalable Architecture	Expandable across new datasets and storytelling layers	Modular Python + Tableau layers
4.	Availability	24/7 public access to published dashboard	Tableau
5.	Performance	Optimized visual rendering and filtering in Tableau	Efficient filtering, aggregated metrics