

Solution Architecture on Global Food Production using Power Bi

Data Ingestion Layer:

- Source: CSV file containing global food production data.
- Data Storage: Power BI Dataflows or SQL Server (if needed for larger datasets).

Data Processing Layer:

- Power Query for data transformation (cleaning, standardizing, handling missing values).
- DAX (Data Analysis Expressions) for calculated measures and aggregations.

Data Modeling Layer:

- Relationships established between country, year, and production metrics.
- Fact and dimension tables structured for efficient analysis.

Visualization Layer:

- Power BI reports and dashboards with interactive elements.
- Filters, slicers, drill-through features for deep analysis.
- AI-powered insights for anomaly detection and trend forecasting.

Deployment & Access Layer:

- Reports published to Power BI Service.
- User access managed via Power BI workspace roles.
- Scheduled data refresh for real-time updates.