Project Design Phase-II
Data Flow Diagram & User Stories

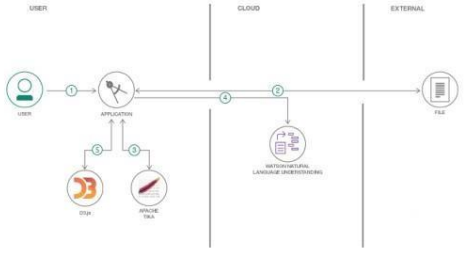
Date	17-October-2023
Team ID	NM2023TMID07506
Project Name	Solar Panel Forecasting
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

Example: (Simplified)

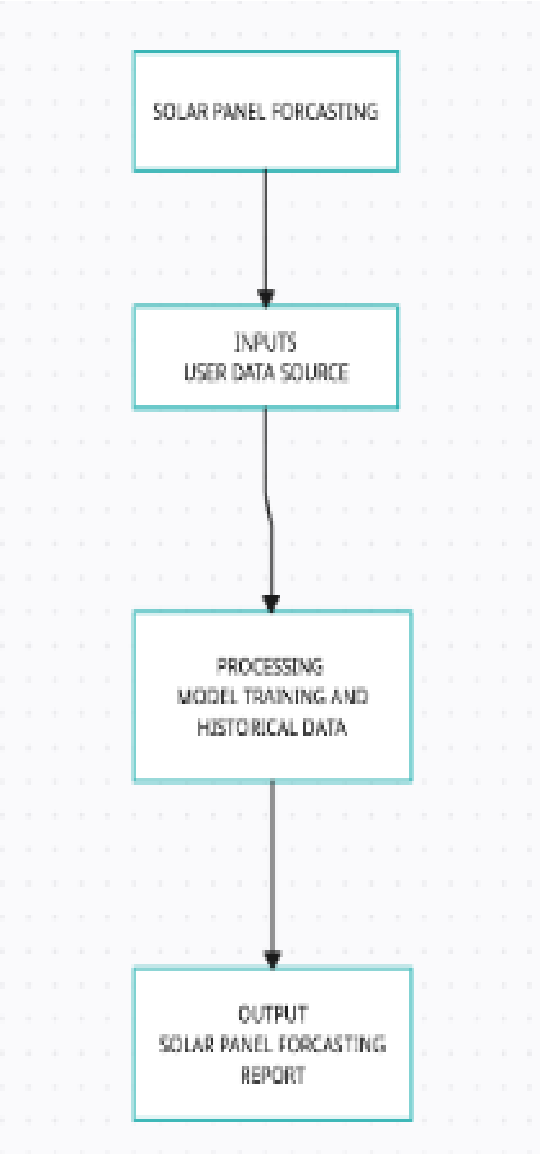
Flow



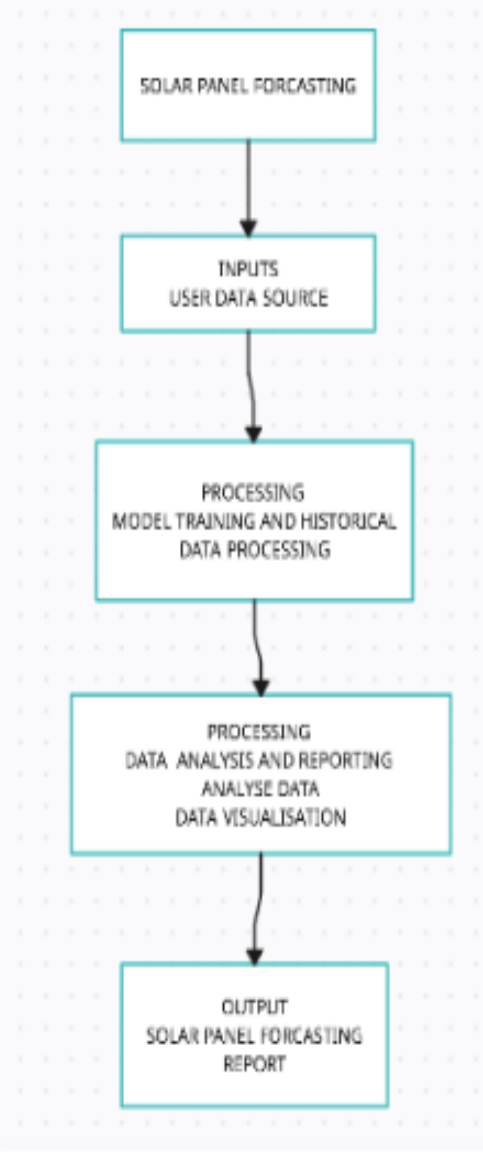
1. User configures credentials for the Watson Natural Language Understanding service and starts the app.
2. User selects data file to process and load.
3. Apache Tika extracts text from the data file.
4. Extracted text is passed to Watson NLU for enrichment.
5. Enriched data is visualized in the UI using the D3.js library.

DATA FLOW DIAGRAM

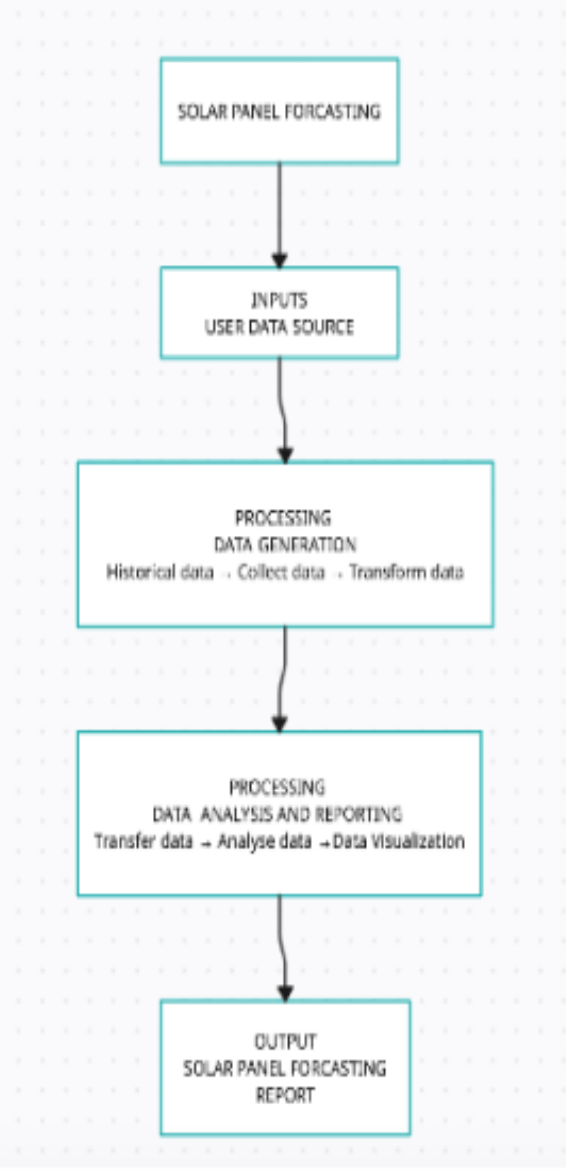
DFD LEVEL 0



DFD LEVEL 1



DFD LEVEL 2



User Stories

Use the below template to list all the user stories for the product.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Team Member
Admin	Data Collection and Processing	USN-1	The admin is responsible for managing the data used in the forecasting process. This includes collecting and organizing historical solar generation data, weather data, and any other relevant inputs required for accurate forecasting. The admin ensures the data is reliable, up-to-date, and properly stored for easy access.	The admin's performance is evaluated based on the accuracy and reliability of the forecasting models. This involves comparing the forecasted values with actual solar generation data and assessing the level of accuracy achieved.	High	Pratheek
Reporter	Report	USN-2	The reporter presents the forecasted results in a format that is easy to comprehend for the intended audience. This may include visualizations, charts, graphs, or tables that effectively convey the predicted solar power generation over a specific time period.	The reporter provides an assessment of the accuracy and reliability of the forecasts. This involves comparing the forecasted values with actual solar generation data to evaluate the level of accuracy achieved. Any deviations or discrepancies should be explained and communicated	Medium	Pranesh
Developer	Developing Software	USN-3	Developers work on designing software architecture that supports solar panel forecasting. They determine the optimal structure and components of the forecasting system, considering factors such as scalability, modularity, and performance.	Developers integrate various data sources into the forecasting system. This includes collecting and processing historical solar generation data, weather data, and any other relevant inputs required for accurate forecasting. They establish data pipelines and APIs to ensure a seamless flow of data into the forecasting models.	Medium	Arjun Krishnan
Customer	Customer Login	USN-4	Customers need to register for an account on the forecasting platform. This involves providing necessary information such as name, contact details, and possibly additional authentication factors for security purposes.	After successful login, customers are presented with a user interface (UI) or dashboard tailored to their specific needs. The UI provides an intuitive and user-friendly environment to interact with the forecasting system.	Medium	Karthik R