**Project Design Phase-II**
**Data Flow Diagram & User Stories**

| Date | 20 November 2023 |
|---|---|
| Team ID | 591569 |
| Project Name | Machine Learning Approach for Predicting the Rainfall |
| 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. The simplified DFD illustrates the flow of data from the initial collection to the final output, including the training of the machine learning model, real-time predictions, user interaction, and system monitoring.

**Example: (Simplified)**                    **Example: DFD Level 0 (Industry Standard)**
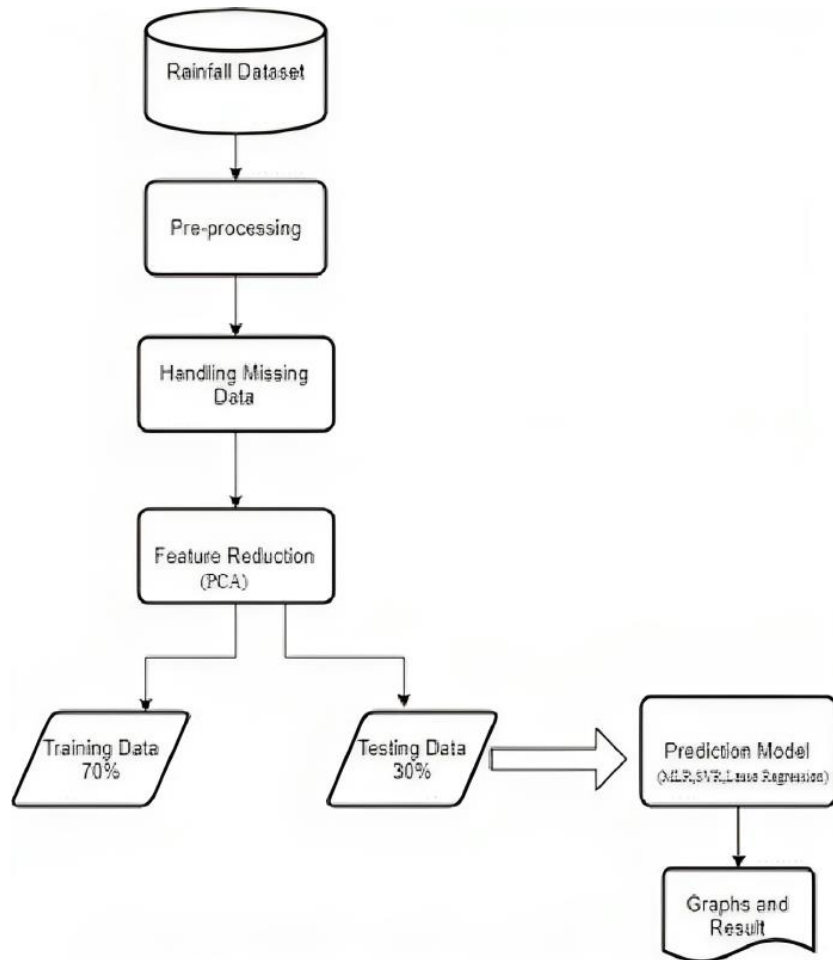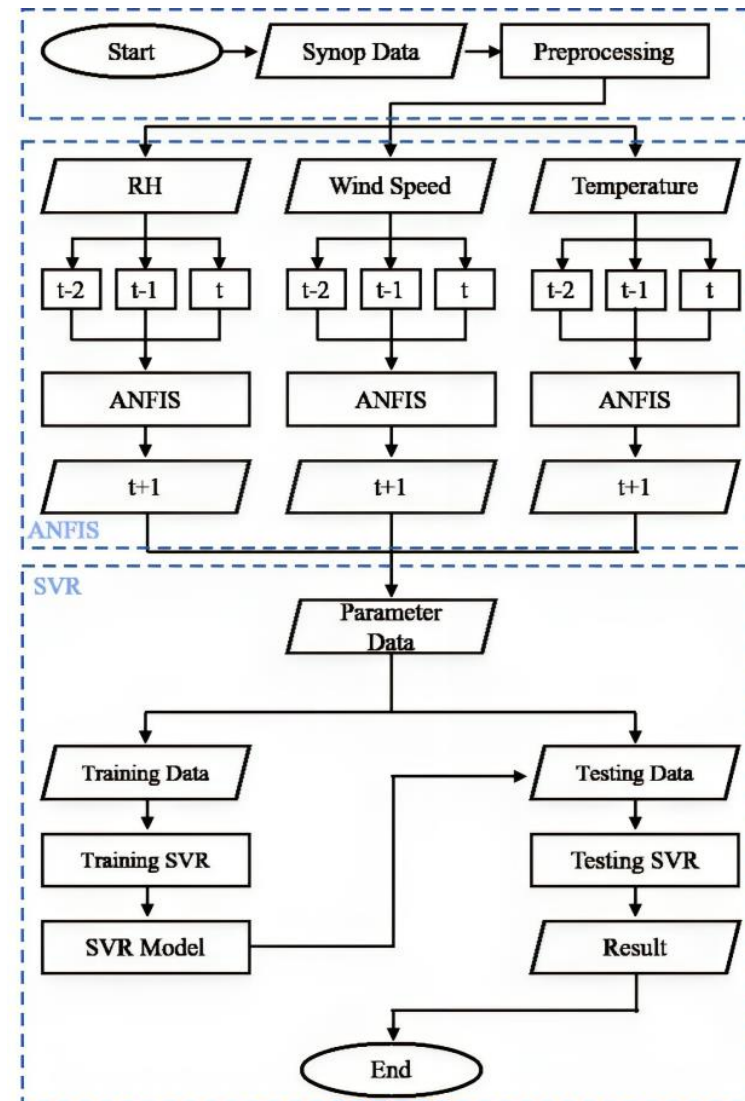
## User Stories

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 | Release |
|---|---|---|---|---|---|---|
| Meteorological Researcher | Access and download | USN-1 | As a meteorological researcher, I want to access and download historical rainfall datasets across India for analysis and model training. | Want to access and download historical rainfall datasets | Low | Sprint-1 |
| Agriculture Expert | Receive accurate and timely rainfall predictions | USN-2 | As an agriculture expert, I want to receive accurate and timely rainfall predictions for my region to optimize crop planning and irrigation schedules. | I want to receive accurate and timely rainfall predictions for my region | High | Sprint-1 |
| Disaster Management Official | Real-time rainfall forecasts | USN-3 | As a disaster management official, I want real-time rainfall forecasts to enhance early warning systems and improve disaster preparedness. | I want real-time rainfall forecasts to enhance early warning systems | High | Sprint-2 |
| Farmer | User-friendly dashboard | USN-4 | As a farmer, I want a user-friendly dashboard that provides easy-to-understand visualizations of historical rainfall patterns and future forecasts for my farm location. | I want a user-friendly dashboard that provides easy-to-understand visualizations and future forecasts for my farm location. | Medium | Sprint-1 |
| Government Official | Access to comprehensive rainfall predictions | USN-5 | As a government official, I want access to comprehensive rainfall predictions to inform water resource management and infrastructure planning across different regions. | I want access to comprehensive rainfall predictions to inform water resource management and infrastructure planning across different regions. | High | Sprint-1 |