## Project Design Phase-I
## Solution Architecture

| | |
|---|---|
| Date | 13 October 2022 |
| Team ID | PNT2022TMID28309 |
| Project Name | Project – Exploratory Analysis Of Rainfall Data In India For Agriculture |
| Maximum Marks | 4 Marks |

## Solution Architecture Diagram:

**DESIGN**

Iterative design or other modules or features to be added in the near future for the upcoming requirements

**USABLE**

The prediction output would be helpful not only to the farmers but also to common people

**RELIABLE**

Features are selected from authenticated data and scaled to predict with high accuracy

**FUNCTIONAL**

User can get all the details about the rainfall for the purpose to increase the crop production

```
                    ┌─────────────────────────┐
                    │ Gathering of user input │
                    └─────────────────────────┘
                                 │
                                 ▼
                    ┌─────────────────────────┐
                    │  Selecting features for │
                    │    rainfall prediction  │
                    └─────────────────────────┘
                                 │
                                 ▼
                    ┌─────────────────────────┐
                    │   Seperation of data for│
                    │   training and testing  │
                    └─────────────────────────┘
                                 │
                                 ▼
                    ┌─────────────────────────┐
                    │  Data Preprocessing and │
                    │      Data Analysis      │
                    └─────────────────────────┘
                                 │
                                 ▼
          ┌────────────►┌─────────────────────────┐
          │             │   Training with ML model│
          │             └─────────────────────────┘
          │                          │
          │                          ▼
          │             ┌─────────────────────────┐
          └─────────────│         Testing         │
                        └─────────────────────────┘
                                     │
                                     ▼
                        ┌─────────────────────────┐
                        │         Output          │
                        └─────────────────────────┘
                                     │
                                     ▼
                        ┌─────────────────────────┐
                        │       Prediction        │
                        └─────────────────────────┘
                                     │
                                     ▼
                        ┌─────────────────────────┐
                        │     Conversion of       │
                        │   prediction to user    │
                        │   understandable form   │
                        └─────────────────────────┘
```