Project Design Phase-I

Proposed Solution Template

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| Date | 3 October 2022 |
| Team ID | PNT2022TMID22690 |
| Project Name | Exploratory Analysis Of Rainfall Data in India For Agriculture |
| Maximum Marks | 2 Marks |

Proposed Solution Template:

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| S.No. | Parameter | Description |
|  | Problem Statement (Problem to be solved) | * The Heavy and irregular rainfall can have many impacts like destruction of crops and farmer lands * Unsustainable Agricultural practice * Leading poor growth and overall health of crop |
|  | Idea / Solution description | * By calculating the product of the rainfall intensity and the duration (i.e., the rainfall depth) for each rainfall duration, the cumulative rainfall distribution can be derived * It is important to exactly determine the rainfall for effective use of water resources, crop productivity and pre-planning of water structures * With advance in science and technology numerous techniques such as Data Mining, Artificial Intelligence, Deep Learning and * Machine learning . |
|  | Novelty / Uniqueness | * With the help of data set we can predict rainfall by extracting the hidden patterns from historical weather data * The speed and accuracy of Al technologies when it comes to processing data in extreme weather conditions that scientist will have a better chance of alerting people in danger * Exploratory Data Analysis is valuable to Machine learning problem since it allows to get closer to the certainty that the future results will be valid, correctly interpreted and applicable to desired business contexts |
|  | Social Impact / Customer Satisfaction | * It is Very useful to take decision for farmers. * It prevents from the damage of crops. * Rainfall has been a major concern these days. Weather conditions have been changing for time being. Rainfall forecasting is important. otherwise, it may lead to many disasters. Irregular heavy rainfall may lead to the destruction of crops, heavy floods that can cause harm to human life. |
|  | Business Model (Revenue Model) | * It aims to avoid wastage of crops without wasting water and it provide better yeild to farmers. * This project is to forecast the rainfall in India and the target user is the farmers and the people. |
|  | Scalability of the Solution | * This will help the major Agriculture based company to maximize their growth efficiency, save resources and optimize their production * It will predict the amount of rain in a specific well or division in advance by various regression technique * It aims to acquire a better scalability with user friendly interface, good number of web app users, without investing lot of resources and money, ease to works with better functionality. |