**IMPLEMENTATION:**

**MODULES:**

* User
* Admin
* Data preprocess
* Multiple Linear Regression (MLR)

**MODULES DESCRIPTION:**

**User:**

The User can register the first. While registering he required a valid user email and mobile for further communications. Once the user register then admin can activate the customer. Once admin activated the customer then customer can login into our system. After login he can search the weather report based on city. For searching the weather report we use open weather map api. The rest connection we are sending to the server and it will return the json data. The json data we are parsing and required information converted into python dictionary sent to the user side. Once it done then the user can perform the preprocess operations. The hist diagram plot diagram are displayed based on the data.

**Admin:**

Admin can login with his credentials. Once he login he can activate the users. The activated user only login in our applications. The admin can set the data set by Indian metrological weather report. In this report the data has consider as monthly wise and yearly quarterly wise. The admin can add new data to the dataset. So this data user can perform the testing process. The admin can view data based on paginations. The total paginations will be displayed on the browser.

**Data Preprocess:**

The admin provided data has been stored in the sqlite database. To process our methodology we need to perform data cleaning process. By using pandas data frame we can fill the missing values with its mean type. Once data cleaned the hist diagram will be displayed. This hist diagram, is monthly wise will be displayed. Alter monthly wise bar graph and quarter wise bar graph will be displayed. Then we are calculating the confusion matrix of the selected model. Once its done the user can see the cleaned data in the browser.

**Multiple Linear Regression**

The number of observation is indicated by n. The dependent variable is yi and the descriptive variable is xi. β0 and βp are the constant y intercept and slop of descriptive variable respectively. Model error is indicated by €. In the proposed model multiple meteorological parameters are necessary to predict the rain fall, it is better to use the multiple linear regression instead of simple linear regression. The assumptions which are made by the multiple linear regression are: linear relationship between the both the descriptive and independent variables, the highly correlated variables are independent variables, yi is calculated randomly and the mean and variance are 0 and σ. By using this formula

 formula we can calculate the Mease Square Error , root meas square errors. Those result we displayed in the browsers.