

Working Of Project

In this Model we used Machine Learning and Support Vector Machine algorithm.

What is a Support Vector Machine(SVM)?

Support Vector Machine is nothing but it follows a supervised learning method for both classification and regression. The objective of SVM algorithm is to find a hyperplane.

- So this is one of the important algorithms of supervised
- In supervised learning , basically we have to feed the data to our machine learning model.
- So, what happens here is that initially we train our model with respect to several medical information like *BMI, Glucose Level, Blood Pressure, Family history of patient and Diet* . In this we have to identify whether the person is diabetic or not.
- Once we feed the data to our ML model , It will try to plot the data in a graph.
- It will try to find the hyperplane.
- So what hyperplane separates the data into negative and positive
- So once we feed the new data to this model, It will try to put that new data in either of these two graphs, by which it can predict that the person is diabetic or non-diabetic.

Flow of each working method:-

1. Diabetes Data:-

- We need diabetes data. It can be a .csv file in which data should contain *BMI, Glucose Level, Blood Pressure, Family history of patient and Diet*.
- After that we will try to train our data with respect to this data

2. Pre-Processing:-

- Before feeding the data to the model, first we need to pre-process the data.
- Here we will try to analyse the data, because this data is not suitable to feed because at this period of time there are a lot of attributes.
- In this it helps to standardise the data with same range

3. Testing data:-

- So once Pre-Process the data now will split the data into training set and testing set.
- Here what will do is train our ML model with training data.
- Then will try to find the accuracy score of our model with the help of test data

4. Support vector machine :-

- So once we split the data into training data and testing data then we will feed that data to Support Vector Machine.
- So here will be using a classifier model that classifies whether the patient has diabetic or nondiabetic.
- Now we have trained a Support Vector Machine, it can easily predict whether the patient has diabetic or nondiabetic.