

Presentation on:

Diabetes Prediction

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INTRODUCTION

- The human body is prone to numerous illnesses. Diseases can affect a person physically as well as psychologically.
- After a treatment, some illnesses are cured, but chronic illnesses do not get better. Therefore, it is crucial to identify and treat diseases at an early stage.
- So we have built a system that can predict whether a person has diabetes or not with the help of Machine Learning.
- This project is done in python.
- In this project, we use Support Vector Machine model and Naïve Bayes Classifier for the prediction.

PROBLEM STATEMENT

- The human body is prone to numerous illnesses. Diseases can affect a person physically as well as psychologically.
- After a treatment, some illnesses are cured, but chronic illnesses never get better. Therefore, it is crucial to identify and treat diseases at any early stage.

Support Vector Machine

- The goal of SVM algorithm is to create the best line or decision boundary that can segregate n-dimensional space into classes so that we can easily put new data point in the correct category in the future.
- The best decision boundary is called hyperplane.

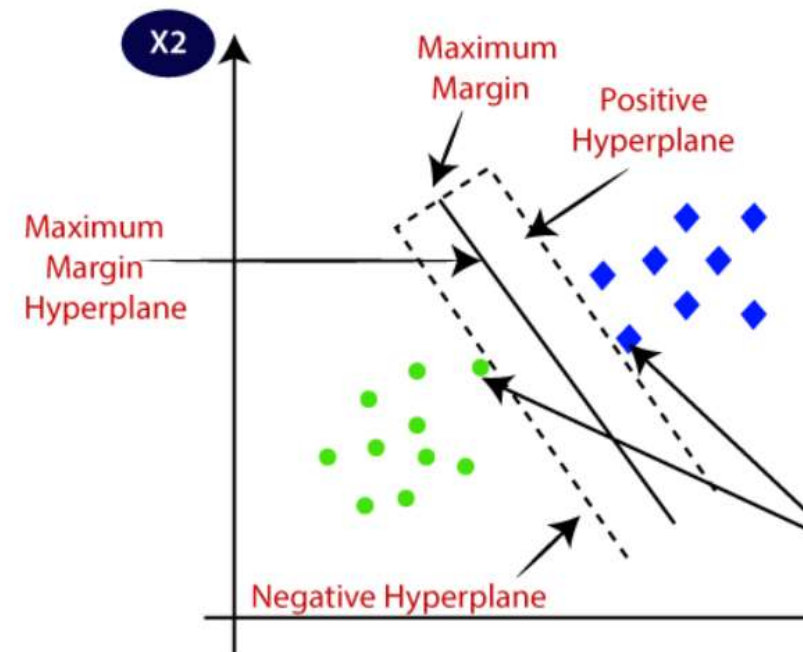


Fig.No.2

WORK FLOW

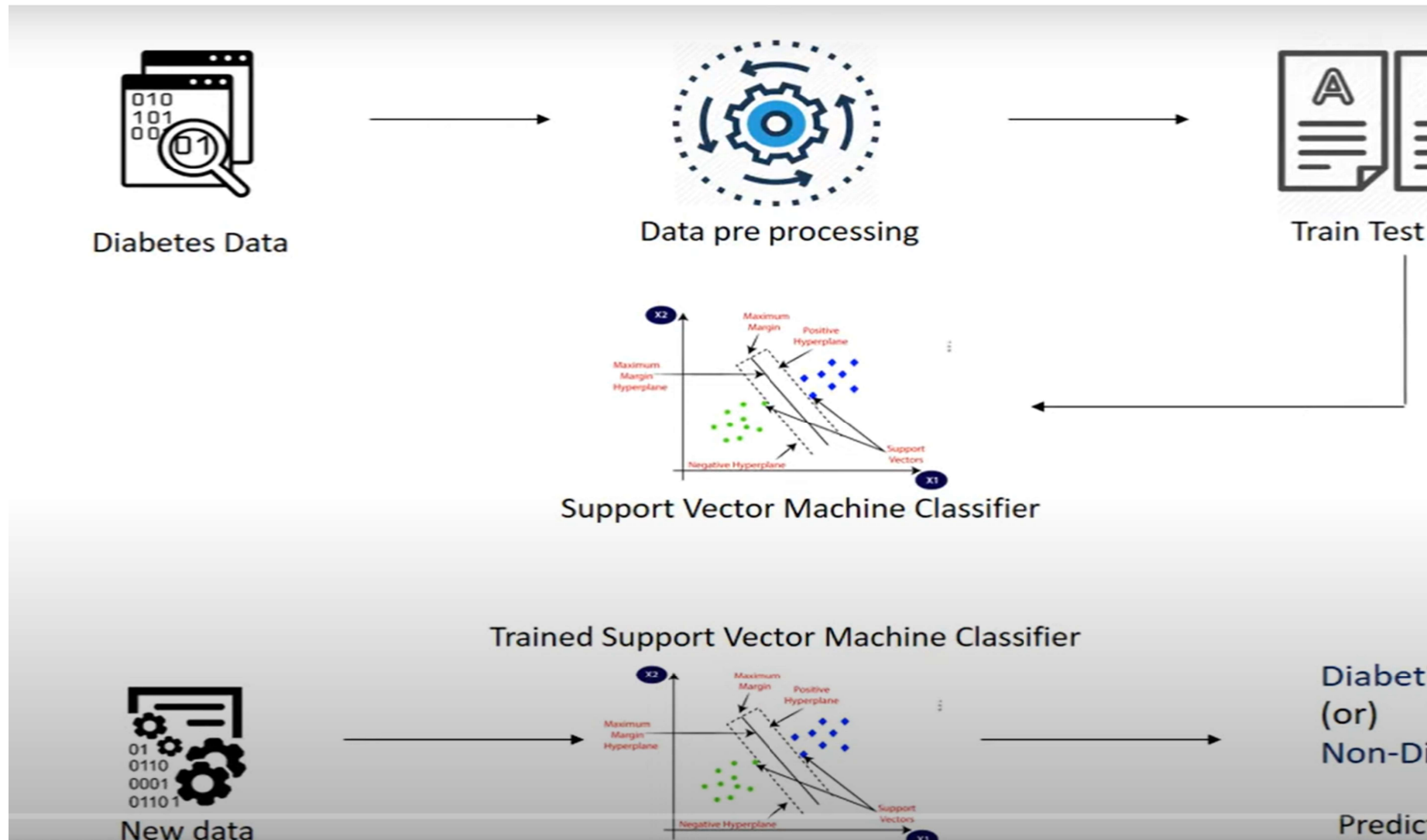


Fig .No.3

NAÏVE BAYES CLASSIFIER ALGORITHM

- Naïve Bayes algorithm is a supervised learning algorithm, is based on **Bayes theorem** and used for solving classification problems.
- It is mainly used in text classification that includes a high-dimensional training dataset.
- Naïve Bayes Classifier is one of the simple and most effective Classification algorithms which helps in building the fast machine learning models that make quick predictions.
- It is a probabilistic classifier, which means it predicts on the basis of the probability of an object.
- Some popular examples of Naïve Bayes Algorithm are spam filtration, Sentimental analysis, and classifying articles.

Work Flow

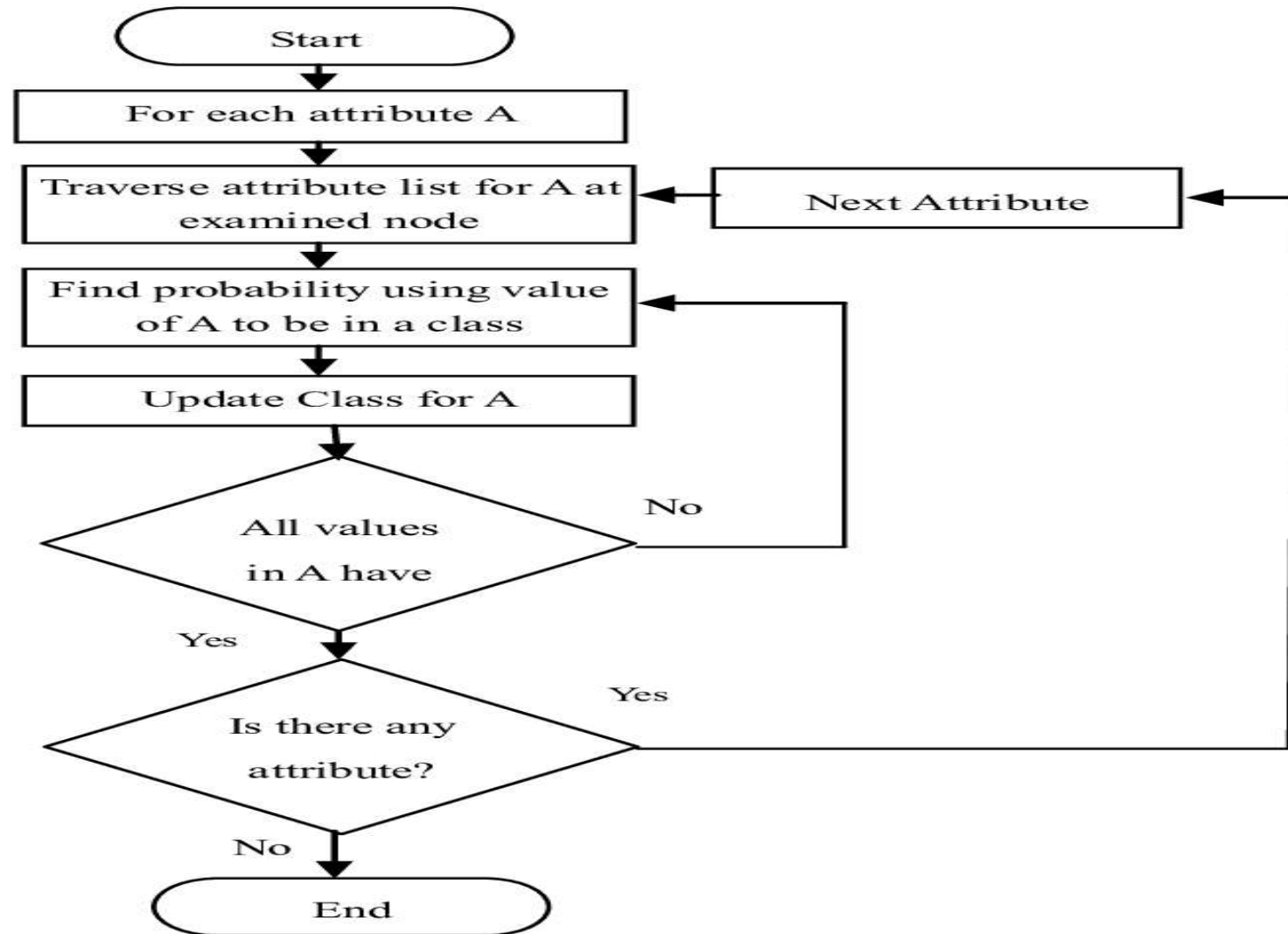


Fig .No.4

CONCLUSION

- This project presents a comprehensive comparative study of algorithms performance on medical record.
- In this project systematic efforts are made in designing a system which results in the prediction of diseases like diabetes.
- During this work , machine learning classification algorithms are studied and evaluated on various measures.
- Artificial Intelligence will play even more important role in data analysis in the future due to availability of huge data produced and stored by the modern technology.