Guided Project

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Project Workspace (https://naanmudhalvan.smartinternz.com/Student/guided_project_workspace/25718)

Chat with Mentor (https://naanmudhalvan.smartinternz.com/student-chat-with-mentor/25718)

Project Manual

(https://smartinternz.s3.amazonaws.com/Thyroid_disease_classification_using_ML.pdf)

⊖ Thyroid Disease Classification Using ML

   ⊕ Define Problem / Problem Understanding

   ⊕ Data Collection & Preparation

   ⊕ Exploratory Data Analysis

   ⊕ Model Building

   ⊕ Performance Testing & Hyperparameter Tuning

   ⊕ Model Deployment

   ⊕ Project Demonstration & Documentation

Thyroid Disease Classification Using ML

Project Description:

The Thyroid gland is a vascular gland and one of the most important organs of the human body. This gland secretes two hormones which help in controlling the metabolism of the body.

The two types of Thyroid disorders are Hyperthyroidism and Hypothyroidism. When this disorder occurs in the body, they release certain types of hormones into the body which imbalances the body's metabolism. A thyroid-related Blood test is used to detect this disease but it is often blurred and noise will be present. Data cleansing methods were used to make the data primitive enough for the analytics to show the risk of patients getting this disease. Machine Learning plays a very deciding role in disease prediction. Machine Learning algorithms, SVM - support vector machine, Random Forest Classifier, XGB Classifier and ANN - Artificial Neural Networks are used to predict the patient's risk of getting thyroid disease. The web app is created to get data from users to predict the type of disease.

Technical Architecture: