High Level Document (HLD)

Project Title – Thyroid Disease Detection

Technologies – Machine learning Technology

Domain – Healthcare

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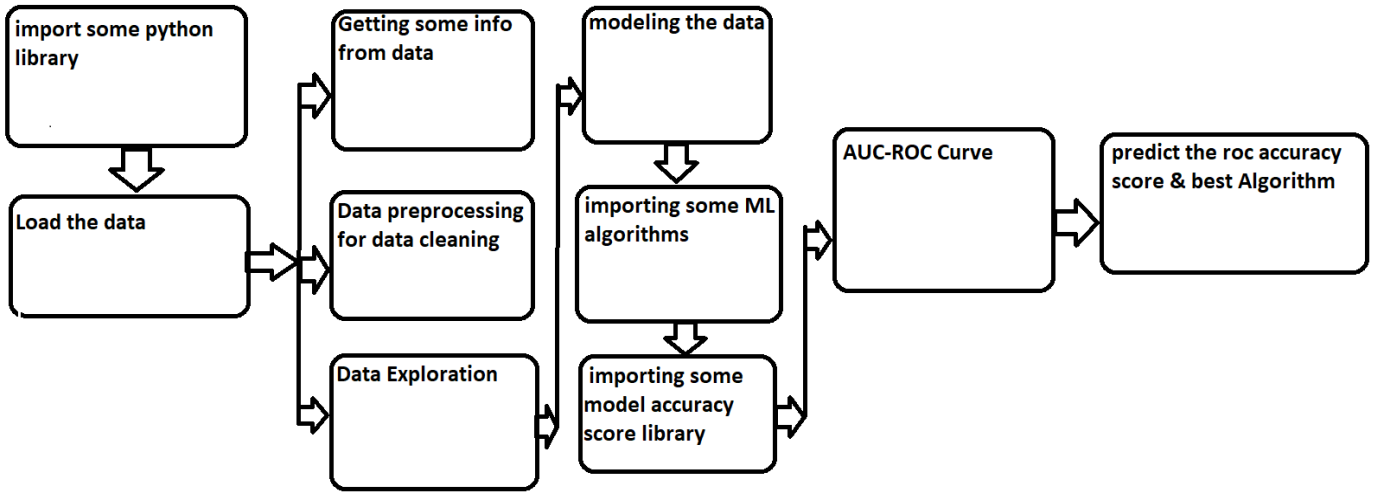
System Design

Simple Process Flow Chart:



➢ Introduction

The Problem

Thyroid disease is a common cause of medical diagnosis and prediction, with an onset that is difficult to forecast in medical research. The thyroid gland is one of our body's most vital organs. Thyroid hormone releases are responsible for metabolic regulation. Hyperthyroidism and hypothyroidism are one of the two common diseases of the thyroid that releases thyroid hormones in regulating the rate of body's metabolism. **When your thyroid makes either too much or too little of these important hormones, it's called a thyroid disease.**

The main goal is to predict the estimated risk on a patient's chance of obtaining thyroid disease or not.

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Key points

Import some python library – first you will have to execute some important python library. Then you can do process forward.

Load the data – data is main part of the project where you can do find the prediction what your given a problem.

Getting some info – after load the data you get some types of information from data which is helps for Data pre-processing.

Data pre processing for data cleaning – in this remove an unwanted thing whatever unstructured data have to do prepare structure way.

Data Exploration – in this whatever structure or unstructured have to do explored in visualization. By which you can easily analysis data.

Modelling the data – when your data have to cleaned so your data have to ready to modelling. in modelling first build features and target data and splitting data.

Importing some ML algorithms – in this you do try to some machine algorithm. For whom you have to do import algorithms libraries.

Importing some model accuracy score library – if you don't have to give clarity as accuracy from difference types of algorithms then you should use some types of accuracy score library.

AUC-ROC Curve – when don't give more clarity so you have used a ROC-Curve method.

Predict the ROC Accuracy score and best algorithm – after used AUC ROC curve method you have given accuracy prediction by roc accuracy score and ROC-Curve.