

# 1. INTRODUCTION

## A. Overview:

Your Thyroid creates and produces hormones that play a role in many different systems throughout your body. When your thyroid makes either too much or too little of the important hormones, it's called a thyroid disease. There are several different types of thyroid disease.

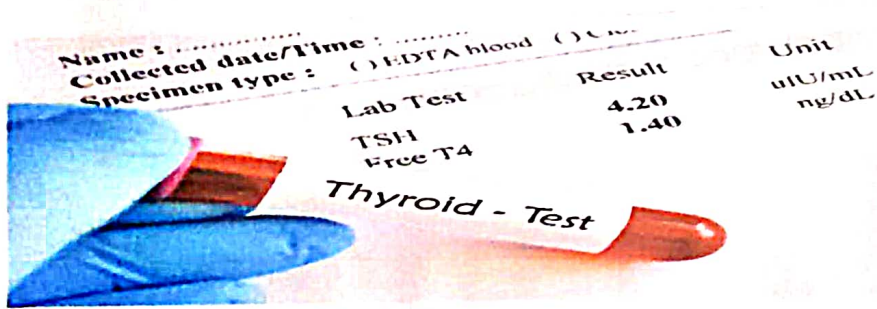
## b. Purpose

The purpose of the project is to decide the types of "medicine" or drug which should be given to the patient suffering from thyroid depending upon their respective "BP" (blood pressure), "cholesterol" and "Na to K" levels. This project we have a just try to reduce the thyroid diseases. The person meet given the exact values in required fields for accurate prediction. In this project we have a boxed a database and the list of the drugs. Thyroid hormones the help regarding these two two thyroid hormones.

## 2. LITERATURE SURVEY

### 2.1 Existing problem:

The thyroid is a butterfly-shaped gland located at the front of the base of the neck. It is part of the endocrine system and releases hormones that affect metabolism, brain development, and bone maintenance. When the thyroid over- or underproduces vital hormones, it can lead to a host of different health issues, including various functions.



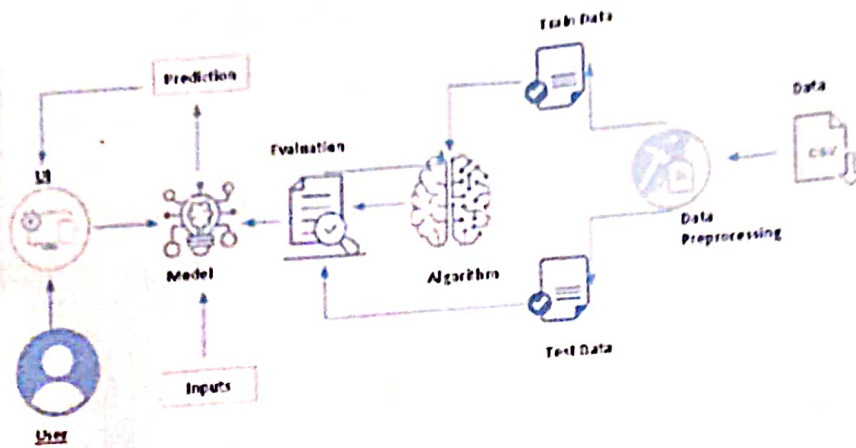
### 2.2 proposed solution:

The thyroid is an endocrine gland located in the anterior region of the neck. Its main task is to produce thyroid hormones which are function to our entire body. Any possible dysfunction can lead to the production of an insufficient or excessive amount. Therefore, the thyroid can become inflamed or swollen due to one or more swelling forming inside its nodules can be the site of malignant tumors. One of the most used treatment of thyroid



### 3. THEORETICAL ANALYSIS:

#### a.) Block diagram:

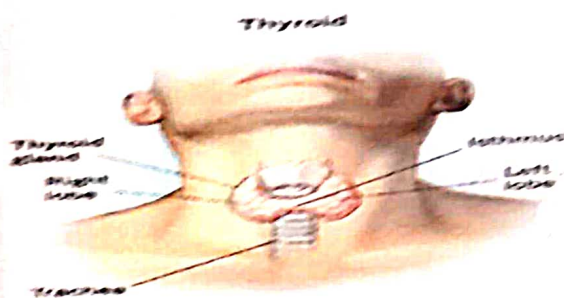


#### b.) Hardware / software Designing Requirement:

A normal PC system or laptop could be used as hardware and make sure that they are at least windows 6 with 4GB Ram, 256 hard disk. Anaconda navigator, Python or spyder any of it could be used to run "app.py" after building the application. Skills required are Python, Python web frameworks, Python for Data analysis.

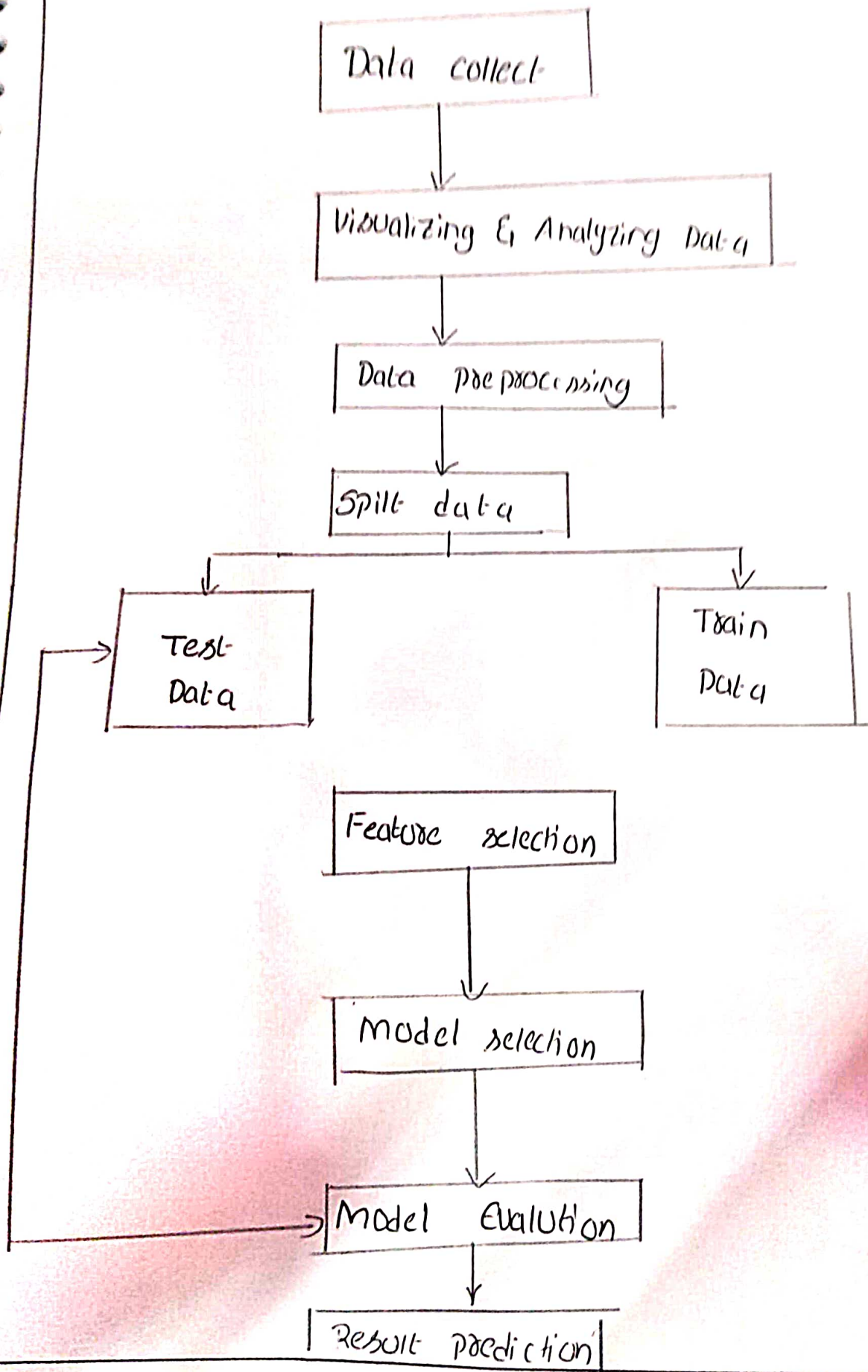
#### 4. Experimental Investigations

The commonly used a laboratory investigations for the diagnosis and management of thyroid disorders are the thyroid hormones, thyroxine and triiodothyronine and the pituitary hormone, thyrotrophin (TSH). Simple readily available radioimmunoassay method for the measurement of the thyroid hormones and the assay.



Variation in total thyroid hormone levels owing to changes in the thyroid hormone binding proteins can be assessed by the measurement of free thyroxine. An equilibrium dialysis method is described. Method for thyroid peroxidase and the measurement of TSH, thyroglobulin and the thyroglobulin antibodies used in the assessment of autoimmune thyroid disease are given.

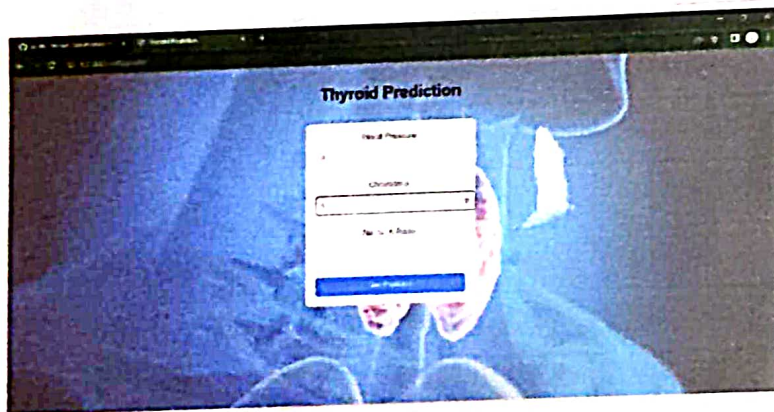
### 5) Flow chart:





6] Result:

After running the URL in browser the homepage will open up; press and predict and given the values and check submit the final result. the medicine which should be taken depending on the values of "Bp" "cholesterol" and "Na-to-k".



## 7. Advantages and disadvantages of Thyroid

### Advantages: Thyroid:

- \* Quicker compared to ED, higher accuracy than ED regularly available
- \* Cosmesis (no neck scar)
- \* Better acceptability for selected patients
- \* Gold standard accurate

### Disadvantages of Thyroid:

- \* Extensive procedure has to be carried out meticulously
- \* Only selected patients can be offered this procedure
- \* Long operative time
- \* Only selected patients can be offered this procedure
- \* Need more surgical experience

## 8. Applications:

- \* US-based risk-stratification System (RSS) have been used for the effective management of thyroid nodules since the early 2000.
- \* AI-based CAD System are based on two techniques ML & DL.
- \* The ML technique requires on predefined knowledge and fed into the ML classifier.
- \* They are several limitations since - few websites of commercialized programs are available to provide access the system.
- \* In a preliminary prospective external validation study by Choi. et al.
- \* Diagnosis of thyroid cancer using deep convolutional neural network models.



## 9. CONCLUSION:

Here I have come to the end of this project on the topic of thyroid.

I would like to share my experience while doing this project. I learnt many new things about the thyroid and it was wonderful learning working on this project.

This project increased my research skill and thinking interest in the subject of the websites and some of the information skills of the Thyroid project.

A very special thank my Sir/Madam for setting such target for us. I enjoyed every bit for making this project.

10.

## FUTURE SCOPE:

### Abstract:

- \* The Thyroid is an endocrine gland located in the anterior region of the neck. its main task is to produce thyroid hormones.
- \* Prediction about the treatment can be important for supporting can be important for supporting endocrinology activities and improve the quality of patient.
- \* For each patient the clinical history is available over time.
- \* To conduct this study we used different machine learning algorithms.
- \* The performance of the different algorithms show good results.

II

## BIBLIOGRAPHY:

GitHub repository - <https://github.com/Hanishabhu741/APSCHEINF>  
of the trainers AI-M2

<https://github.com/sowmya-mohandas/APSCHE-Rep-AI-M2>

Data sets - <https://www.kaggle.com/datasets/mexwell/us-school-stores>

<https://www.kaggle.com/datasets/shree/942/houred-data>

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