

A project report on

## **EXAMINING LAB REPORTING SYSTEM**

Submitted in partial fulfillment of the requirement  
For the award of the degree

### **MASTER OF COMPUTER APPLICATIONS**

Of



Visvesvaraya Technological University  
Belgaum, Karnataka

By

**K P PAVAN KALYAN**  
**1CY18MCA53**



**CMR INSTITUTE OF TECHNOLOGY**  
**132, IT Park Road, Kundalahalli, Bangalore-560037**  
**2019-2020**

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Under the guidance of

**Internal Guide**

**Ms. Moumita Roy**

Assistant Professor,  
MCADepartment,  
CMR InstituteofTechnology,  
Banglore.

**External Guide**

**Ms. Keerthana S**

Techciti SoftwareConsulting  
Pvt. Ltd,



**CMR INSTITUTE OF TECHNOLOGY**

**132, IT Park Road, Kundalahalli, Bangalore-560037**

**2019-2020**

# CMR INSTITUTE OF TECHNOLOGY

Department of Master of Computer Applications

Bangalore - 560037



## ***CERTIFICATE***

*This is to certify that the project work entitled*

### **Examining Lab Reporting System**

*Submitted in partial fulfilment of the  
requirement for the award of the degree of  
Master of Computer Applications of the  
Visvesvaraya Technological University,  
Belgaum, Karnataka bonafide work carried out by*

**K P Pavan Kalyan  
1CY18MCA53**

*during the academic year 2019-2020.*

\_\_\_\_\_  
Signature of the Guide

**Ms. Moumita Roy**

Assistant Professor, MCA

\_\_\_\_\_  
Signature of the HOD

**Ms. Gomathi.T**

HOD, MCA

\_\_\_\_\_  
Signature of the Principal

**Dr. Sanjay Jain**

PRINCIPAL, CMRIT

### External Viva

Name of the Examiners

1.

2.

Signature with date



## TechCiti Software Consulting Private Limited.

CIN: U72900KA2018PTC117376

D-U-N-S No. : 86 14 54180

*Technology is boundless...*

No. 22 23 24 25/101, BNR Complex, J.P. Nagar, Bengaluru, Karnataka 560078.

**Landline:** 080 6841 1700 **Email:** info@techcitisoftware.in **Website:** www.techcitisoftware.in

**Ref.No.TTPL/2019-2020/HRD/1607 Date: 10<sup>th</sup> June, 2020**

### TO WHOMSOEVER IT MAY CONCERN

We would like to inform you that Mr. **K P Pavan Kalyan** (1CY18MCA53) has successfully completed his project with our company, he has been working on the project title “**Examining Lab Reporting System**” from 10.01.2020 to 03.06.2020 as “Software Developer – Intern”.

We have found him to be a self –starter who is motivated, duty-bound and hardworking. He has worked sincerely on his assignments and his performance is at par excellence.

We wish him all the best for his future endeavors.

Sincerely,



**Manager**

Human Resources Department

**TechCiti Software Consulting Private Limited.**

**Registered office:** No.22232425/101,BNRComplex,J.P.Nagar7thPhase,Bengaluru,Karnataka 560078.

**Landline:** 080 2698 1300

**Email:** info@techcitisoftware.in

**Web:** [www.techcitisoftware.in](http://www.techcitisoftware.in)

## DECLARATION

I, **K P Pavan Kalyan**, student of 6<sup>th</sup> MCA, **CMR Institution of Technology**, bearing the USN **1CY18MCA53**, hereby declare that the project entitled “**Examining Lab Reporting System**” has been carried out by me under the supervision of External Guide **Ms.Keerthana S**, Project Manager, and Internal Guide **Ms. Moumita Roy**, **AssistantProfessor, Dept. of Master of Computer Applications** and submitted in the partial fulfillment of the requirements for the award of the Degree of Master of Computer Applications by the **Visvesvaraya Technological University** during the academic year 2019-2020.The reports has not been submitted to any other University or Institute for the award of any degree or certificate.

Place:Bangalore

K P Pavan Kalyan

Date:

(1CY18MCA53)

## **ACKNOWLEDGEMENT**

I would like to thank all those who are involved in this endeavour for their kind cooperation for its successful completion. At the outset, I wish to express my sincere gratitude to all those people who have helped me to complete this project in an efficient manner.

I offer my special thanks to my external project guide Ms. Keerthana S Project Manager, Techciti Software Consulting Pvt. Ltd., Bangalore, and to my Internal Project guide Ms.Moumita Roy, Department of MCA, CMRIT, Bangalore without whose help and support throughout this project would not have been this success.

I am thankful to Dr. SANJAY JAIN, Principal, CMRIT, Bangalore for his kind support in all respect during my study. I would like to thank Ms. Keerthana S, Project Manager, Techciti Software Consulting Pvt. Ltd., Bangalore, who gave opportunity to do this project at an extreme organization Most of all and more than ever, I would like to thanks my family members for their warmness, support, encouragement, kindness and patience. I am really thankful to all my friends who always advised and motivated me throughout the course.

**K P Pavan Kalyan**

**(1CY18MCA53)**

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# 1. INTRODUCTION

## 1.1 PROJECT DESCRIPTION

In our day to day life and person life styles and health diet are the two important reasons that are mainly due to influence openness to large number of sorts of diseases sickness are affected thanks to the rationale for by a mixture of exchanging, life style choosing, and environments. additionally, discovering health danger severe in a private's family members is one in all the foremost key things an individual person consult the doctor and they know like they have symptompms like disease have cancer,diabetes and heart attack.Most of the diseases are related to person's habitual activities like lack of physical exercise,mental stress,work load and environmental surroundings.

This project follows to machine learning supervised algorithm like K-Nearest Neighbor (KNN) and Decision tree use it to predict diseases (I.e.,) in that algorithm we are using the dataset(in that we have n number of patient medical details)based on that we are going to find the diseases in initial or final stages.Changing the person life style in a simple way suddenly it can't support to their health and neglect risks may be interest Lifestyle diseases depend upon factors like work load, workout, and food interest and thus have a powerful relation with the above mentioned factors. In our proposed method we should give input features for the particualr disease like bloodlevel,insulin,gender,age and obesity and any other symptoms some other diseases , that provides a data in pandas csv format and we can add machine learning (ML) algorithm to predict the final outcomes or accuracy.

## **1.2 Company Profile**



### **TechCiti Software Consulting Private Limited**

#### **ABOUT THE ORGANISATION**

##### **An overview**

TechCiti is a vast comprehensive information technology services and solutions platform that digitally transforms business operations, enhances customer engagement and augments operational efficiency for its customers all over the world. TechCiti offers an integrated portfolio of products, solutions and services. It serves more than 1500 customers ranging from Fortune 500 companies to emerging start-ups. Techciti Technologies Private Limited has evolved as one of the leading Managed Service Provider (MSP's) in APAC region. While TechCiti Software Consulting Private Limited has evolved in providing a comprehensive suite of solutions and services ranging from customised software and web development , software and web application testing . We have achieved key milestones in expanding our satisfied customer base through-out APAC region. Our teams have a unique blend of functional and operational knowledge, along with technical expertise and result-oriented management experience ranging from Application Development to end to end IT Implementation projects. Our organisation derives its strength from its strong leadership team focused on inspiring an environment of entrepreneurial culture seeped in delivering exceptional value to the customers.

##### **History of the Organisation**

TechCiti Technologies Private Limited was incorporated in the year of 2013.

The company network includes two companies “TechCiti Technologies Private Limited” and “TechCiti Software Consulting Private Limited “. TechCiti Technologies Private Limited being the parent company and TechCiti Software Consulting Private Limited being the deemed subsidiary of TechCiti Technologies Private Limited and was incorporated in the year of 2018.

## **Operations of the Organization**

The operation of the company is associated with providing managed services and software development. We offer a wide range of services to build a solution that is right for our clients' business needs. We have a satisfied client base throughout PAN India and Asia Pacific locations. We are associated with many Multi National as well as Fortune 500 companies namely Versa Networks, Tekion, Vimeo, Dr. Reddy's, TechMahindra, BVG India, Riverbed India Pvt Ltd., HPE, Indian Institute of Science (IISc) and many more. A Business Unit of Techciti Technologies Pvt.Ltd. named TechCiti Software Consulting Pvt.Ltd. is a service and application development based organization. Customised Software development involves product development or application development for the other companies based on their own requirements as well as inhouse ERP Software development which we sell to the other companies on subscription basis. We have been building cross-channel Services & solutions for clients and organizations who are just expanding into more than one channel. TechCiti Software Consulting Pvt.Ltd. also offers technology consulting, application maintenance & support.

### **Objectives of the organisation:**

- To emerge as a global leader in the field of software solutions and services.
- To sustain a leadership position and gain market share in our existing product or service offerings and continuously upgrading them by adapting to new technologies.
- To continuously benchmark and partner with the global leaders to usher in futuristic products and services.
- To be a good corporate citizen by inculcating high degree of ethics in its business practices

### **Strengths and Strategies:**

- A commitment to our core values has helped us build long – term, value centric relationship with customers.
- Continuously re-skilling, training and building the capabilities of our employees to be future-ready.

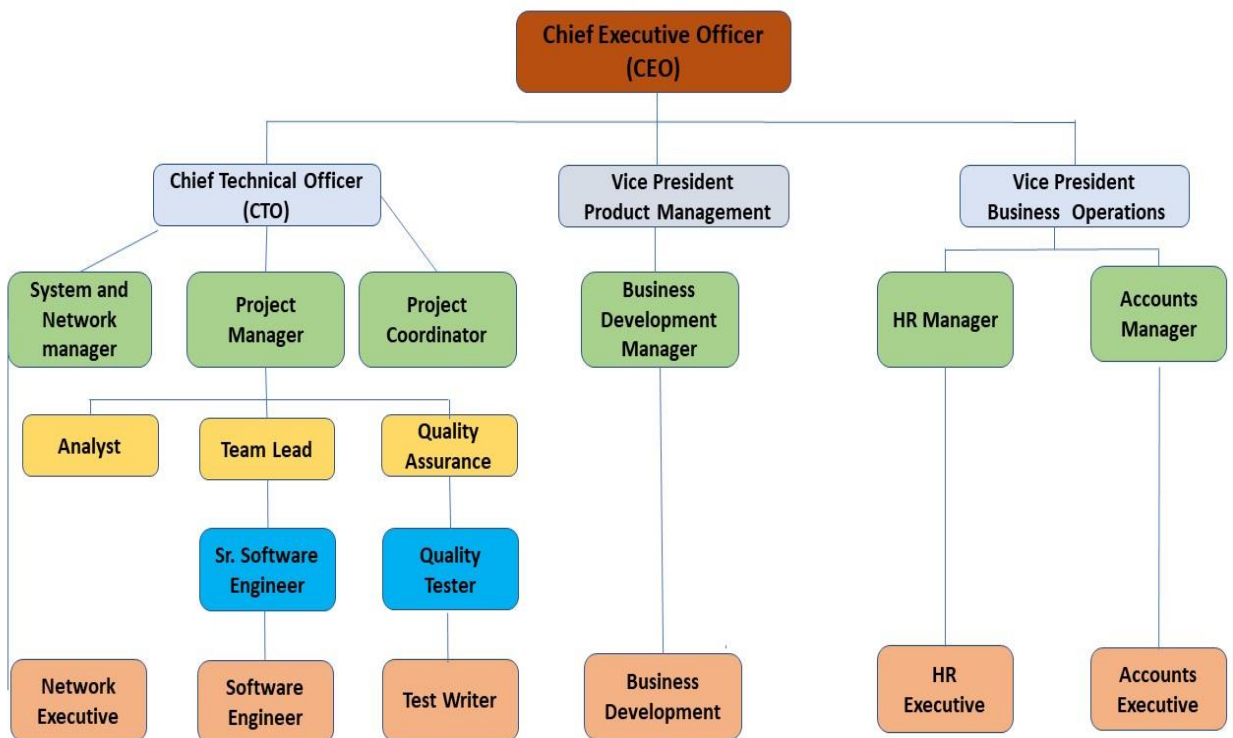
- “Future proofing” your business by making the required business model changes and building innovative alliances within an ecosystem of strategic partners.

### Structure of the organisation

Organizational structure affects organizational action in two ways:

It provides the foundation on which standard operating procedures are determined  
 It determines the job role of the employees and the key responsibilities which they have to take on a regular basis to ensure the smooth functioning of the organisation.

The Figure below provides the details about the structure of TechCiti.



Structural Organisation Of TechCiti

## **2. LITERATURE SURVEY**

### **1.Prediction of cardiopathy Using Machine Learning Algorithms.**

Health care has enormous data of information, we need to process the data using certain techniques, data processing is one in all the techniques often used in machine learning algorithms, cardiopathy is that one of the most leading explanation for death worldwide. Using this machine learning algorithm technique predicts the emerging possibilities of cardiopathy . The results of this methods provide the chances of occurring cardiopathy in terms of percentage. The datasets used are classified in terms of medical field of attributes like input and output data to split using model selection method, this technique evaluates those parameters using processing classification technique. The datasets are predict the output using python programming.

### **2.Predict of diabetes supported personal life indicators.**

Diabetes Mellitus or Diabetes has been describe as equal to Cancer and HIV (Human Immunodeficiency Virus). It increases when the persons there are high glucose levels over a protracted period. Recently, it's been noted as a risk for develop Alzheimer, and variety one cause for blindness & nephrosis .Prevention of the disease is additionally a important topic for research within the healthcare community people.

### **3.Study of machine learning for special disease predict using principal of component analysis.**

World Health Organisation give the report most of the people died in heart diseases.This will continue in future,we will face approximately 23.6 million people will die from cardiopathy

upcoming 2030. The healthcare industry collects a number of data of cardiopathy in some cases we can't solve the exact issue due to confidentiality. During the project, study of Principal Component Analysis has been done which finds the lowest number of attributes and we can predict using supervised machine learning algorithms. Project for predict supervised predict cardiopathy ,data processing has been done and split the data with trained data and fit the values and finally predict the output result. Nowadays diabetes is a life threatening disease because small children also affected by this disease if we know machine learning algorithm we can pass the particular symptoms and we can perform prediction

#### **4.Disease prediction by using machine learning,**

Nowadays day to day life the people facing various diseases that are related to person habitual activities and it is difficult to predict whether the person is affected by initial or final stages. Due to that accurate prediction is not possible for particular disease symptoms it is difficult task without using machine learning algorithm we can't get the right prediction of disease is that the upcoming challenging task face the affected people with particular diseases. Now-a-days science technology has developed infinite number of innovation ideas in that some cases also we can solve the issues in medical growth and healthcare field so we can use machine learning algorithm to predict various stages or final level we can save the person's life.

# SOFTWARE ENVIRONMENT

## HTML

Html is a creation of websites or webpages. For creation of website/webpages we are using Cascading Style Sheet(CSS) it is used to create styles for your webpages like font,color,animation and Javascript it is used for validation purpose.

Web browser get Html file from a web server and we can see the website page in any type of browsers.

## CSS

while creating webpage adding style in that in a simple and easiest way. CSS explanation, it is simple style based language to make website attractive.

## Bootstrap4

Bootstrap is an open source framework used to develop the responsive web applications or responsive designs. Responsive means application should be runs on smaller screens like mobile phones and tablets. Every element of the HTML document get stacked when the page get smaller or minimized. By default bootstrap takes 12 columns of width with equal separation of the columns that means every column having same size. But you can alter the default values and you can make layouts, design according to your requirements using `<span>` tag.

which can run the app on every devices. Further it provide some stylish



buttons, forms, tables and so on. Bootstrap 4 is the newest version with some additional features compare to previous versions. In this project bootstrap 4 is used for the front development along with the django framework.

## **Machine Learning**

Machine learning is the type of AI in this it will learn automatically without having the user knowledge(Ex.Robot-in that if we feed the data based on that it will follow instructions and experience by own,we don't need to insist each and every time.)

Machine learning has three types

1. **Supervised Learning**-Name itself denotes it is a supervisor technique.We can simply say it is a labeled data we know both input and o/p based on that we are going to predict the accuracy.It has two types
  - ✓ Classification-Discrete or categorical values
  - ✓ Regression-Continous values
2. **Unsupervised learning**-It is the unlabelled data,it has only input features.Based on the input data itself we need to find and predict the output.It has two types
  - ✓ Clustering
  - ✓ Association
3. **Reinforcement Learning**-It is trial and error method

## **Django**

Django is high level web framework in python which is developed and maintain by DSF(Django Software Foundation). Now a days django widely in used because of its more built in functionalities. There are some famous and well-known companies and apps are using django for the development of their

websites and those companies and apps are Google, Instagram, Disqus, Spotify, You Tube, Pinterest, .It is used in web development in python. It support templates and static files that means you can easily render the HTML pages by putting all the HTML files in the directory called 'templates' and similarly you can place all the files related to styles like CSS and JS will be placed inside the directory called 'static'. In this project django is used for the front end development. Further django provide more features as compared to other frameworks and those features are givenbelow.

1. Built in localhostserver
2. Built in administrationfacility
3. Highsecurity
4. Rapiddevelopment
5. Outstandingdocumentation

## NumPy

NumPy is the library for the python language which provide arrays and matrices for the storing the large data. It provides and supports a high-level and more mathematical function which works on these Numpy arrays and matrices.

### **Installing Anaconda Python,Spyder and Jupyter Notebook**

#### **STEPS TO INSTALL PYTHON USING ANACONDA DISTRIBUTION**

##### **1. Downloading the Python installer**

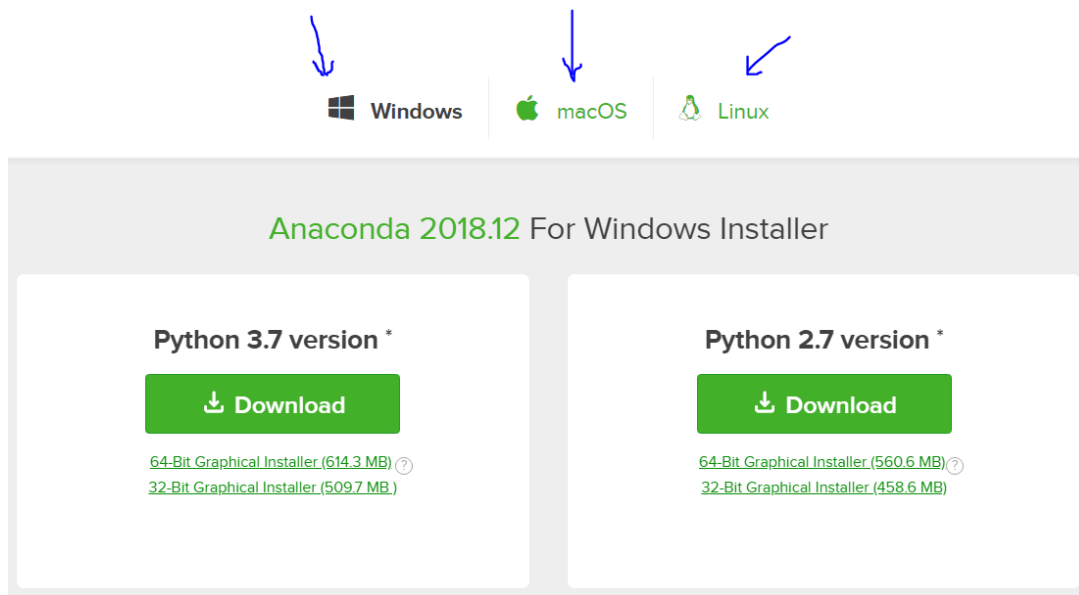
To download the free Anaconda Python distribution , please visit [Anaconda distribution download page](#) and scroll , till you see below content



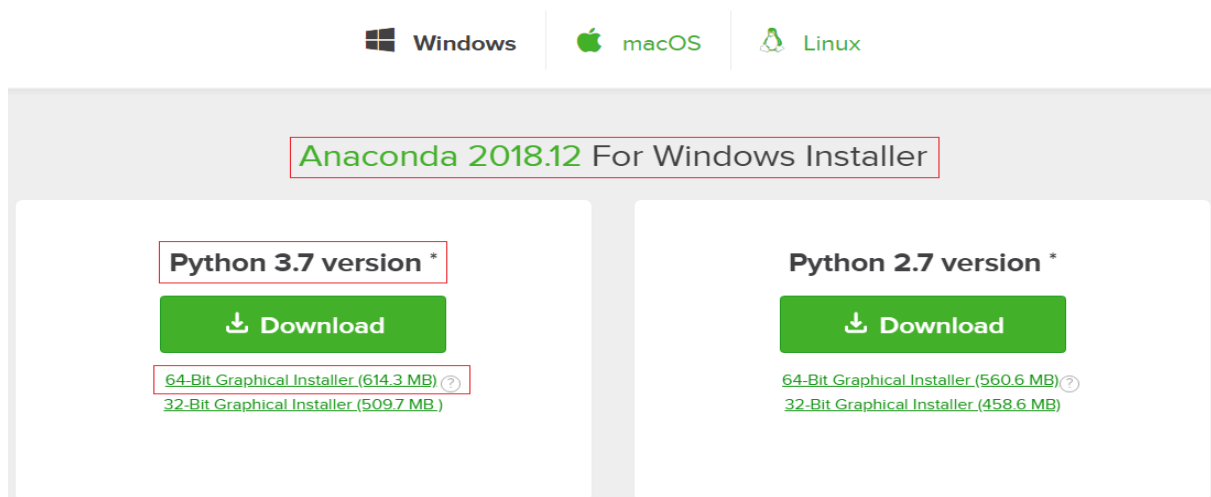
You will be downloading the Python 3 version (any version 3.5 or later is good). Do not download Python 2.7 version, as it is old and will not be supported by python community in future.

**NOTE:** the installer we will be downloading and installing is larger than the average file because it contains Python, associated packages/libraries and some other toys. It may take 15-20 minutes in total to download and install.

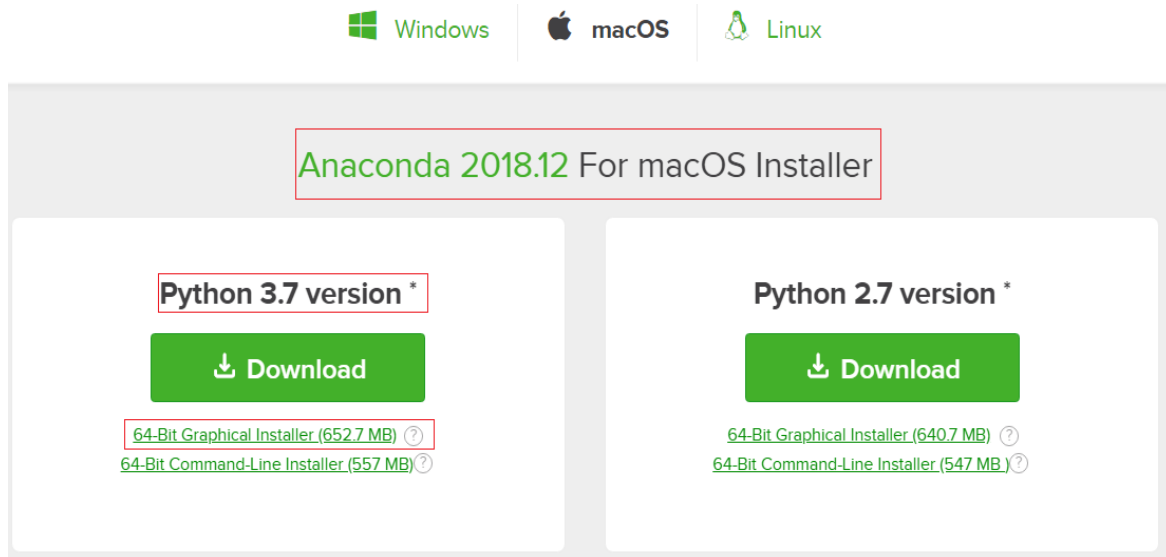
**2.** Choose installer as per your Operating System (Windows, macOS, Linux). We are going to choose windows os.



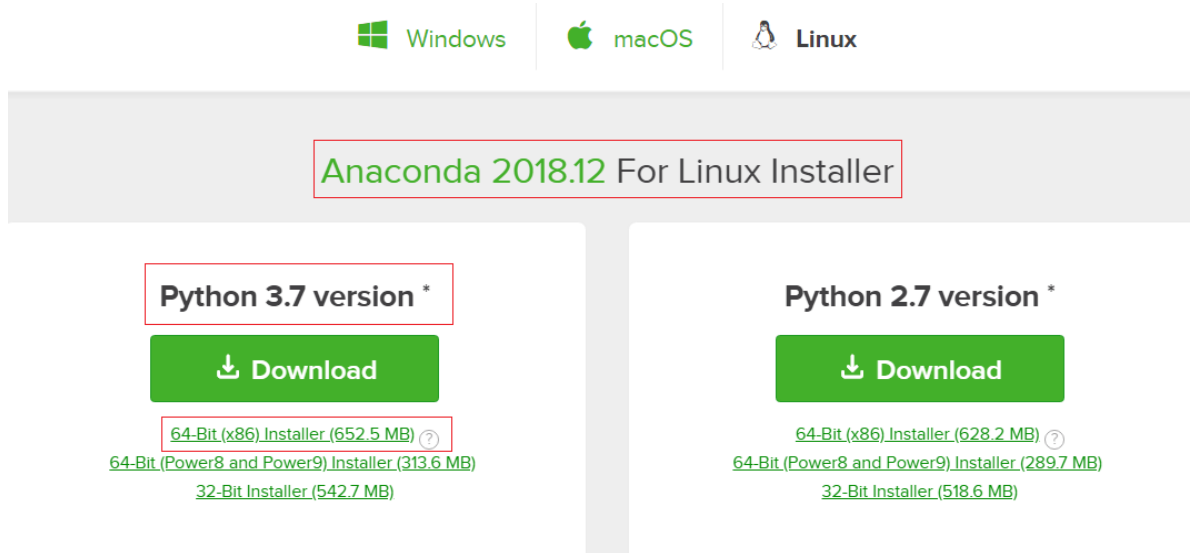
**3. Windows Operating System:** Once you scroll to “Anaconda for Windows” section. Look in the column for Python 3.7 version , there are two versions of the installer, **64-bit** and **32-bit** . if you are using 32-bit windows make sure to download 32-bit installer.To know which version of windows you are running follow instructions mentioned on this [page](#).



**4. Macintosh Operating System:** Once you scroll to “Anaconda for mac OS” section. There is only one version of the installer here the 64-bit version.



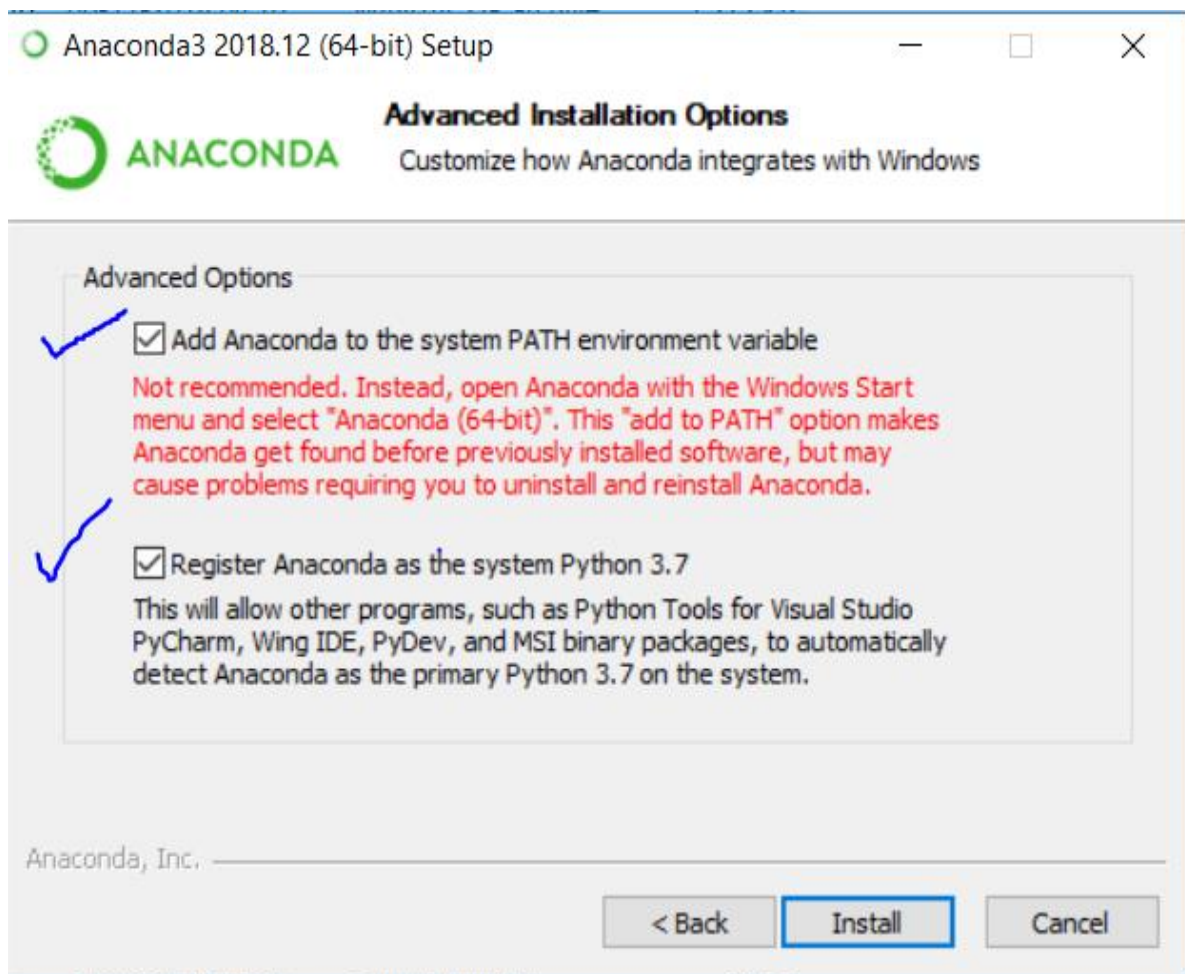
**4. Linux Operating System:** Once you scroll to “Anaconda for Linux” section. Look in the column for Python 3.7 version , there are two versions of the installer, **64-bit** and **32-bit** .if you are using 32-bit linux make sure to download 32-bit installer.To know which version of linux you are running please read this [page](#)



**5. Installing Python:** Once you download installer, double click on **.exe(Windows)** file and **.pkg (Mac)** file and follow the instructions on the screen,till you get the below pop-up.Please accept both the options

“Add Anaconda to the system PATH environment variable” and

“Register Anaconda as the system Python 3.7”



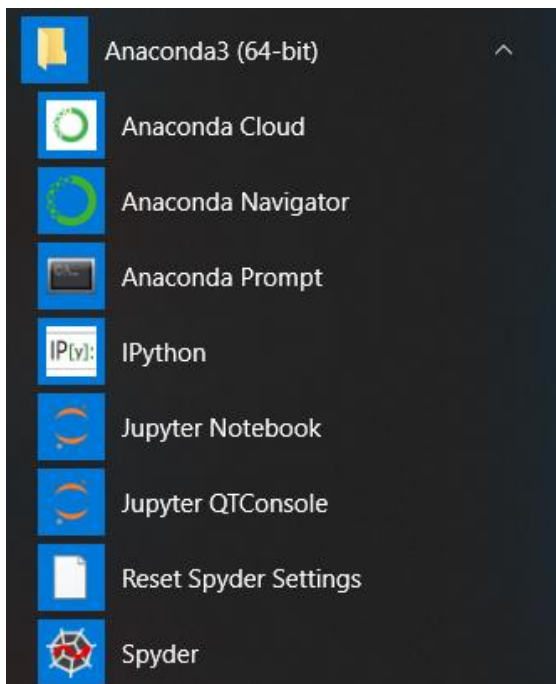
6. The installation will take about 15-20 minutes. Click Finish to close the window when done.

## JUPYTER NOTEBOOK AND SPYDER

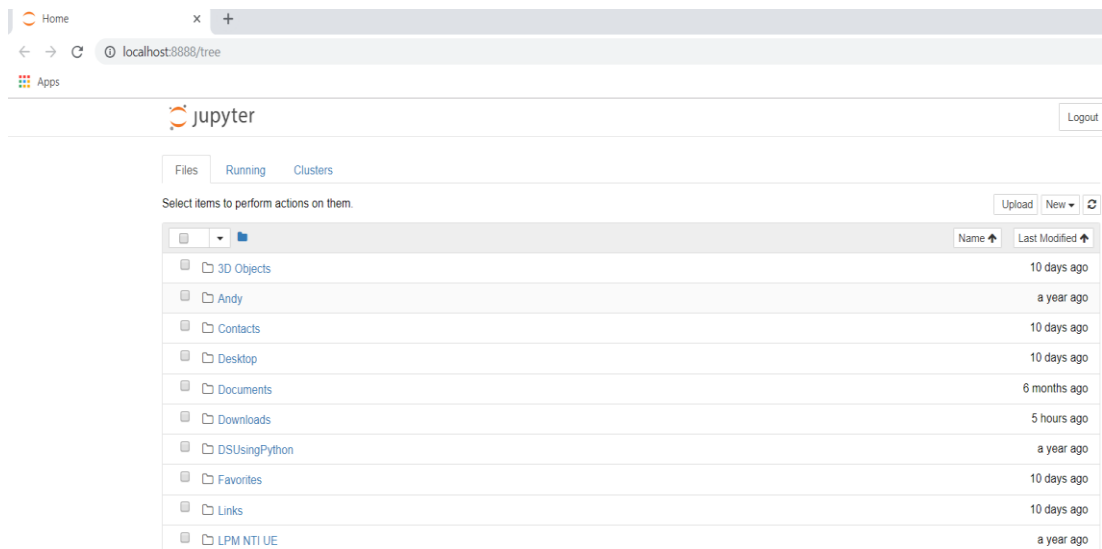
### 1. Launching Jupyter nb:

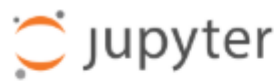
Go to Start in Windows and search for **Anaconda3 (64-bit)**, expand the folder and

click on **Jupyter Notebook**



Jupyter nb will open in browser as follows:





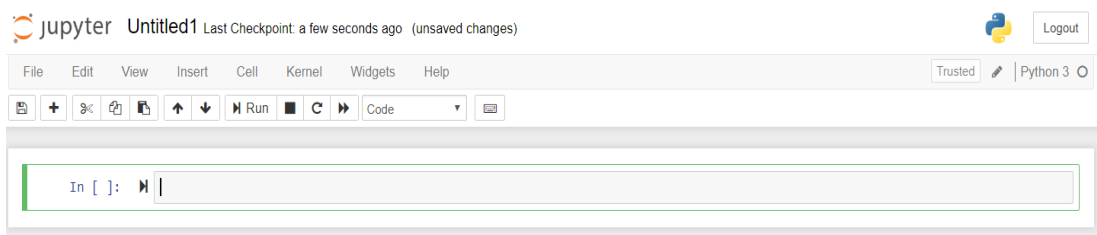
Files

Running

Clusters

Select items to perform actions on them.

You will get below window in browser



## Launching Jupyter NB from Command prompt

You can also launch jupyter nb from a specific folder on your system. You just have to use the command jupyter notebook from windows command prompt. Please follow the below steps:

**STEP 1:** use **cd** command to go the specific folder (for me folder name is **DSUsingPython**)

```
C:\WINDOWS\system32\cmd.exe
```

```
Microsoft Windows [Version 10.0.17134.472]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\goswa>cd C:\DSUsingPython
```

**STEP 2:** type **jupyter notebook** command



```
C:\WINDOWS\system32\cmd.exe - jupyter notebook
Microsoft Windows [Version 10.0.17134.472]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\goswa>cd C:\DSUsingPython

C:\DSUsingPython>jupyter notebook
[I 00:48:22.382 NotebookApp] The port 8888 is already in use, trying another port.
[I 00:48:22.662 NotebookApp] JupyterLab extension loaded from C:\ProgramData\Anaconda3\lib\site-packages\jupyterlab
[I 00:48:22.662 NotebookApp] JupyterLab application directory is C:\ProgramData\Anaconda3\share\jupyter\lab
[I 00:48:22.664 NotebookApp] Serving notebooks from local directory: C:\DSUsingPython
[I 00:48:22.664 NotebookApp] The Jupyter Notebook is running at:
[I 00:48:22.664 NotebookApp] http://localhost:8889/?token=1d665851598d9f684a5aa1457cf672d08bb178ed1f2b04d4
[I 00:48:22.664 NotebookApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 00:48:22.737 NotebookApp]

To access the notebook, open this file in a browser:
file:///C:/Users/goswa/AppData/Roaming/jupyter/runtime/nbserver-9220-open.html
Or copy and paste one of these URLs:
http://localhost:8889/?token=1d665851598d9f684a5aa1457cf672d08bb178ed1f2b04d4
```

Jupyter nb will be launched in new browser window from that particular folder

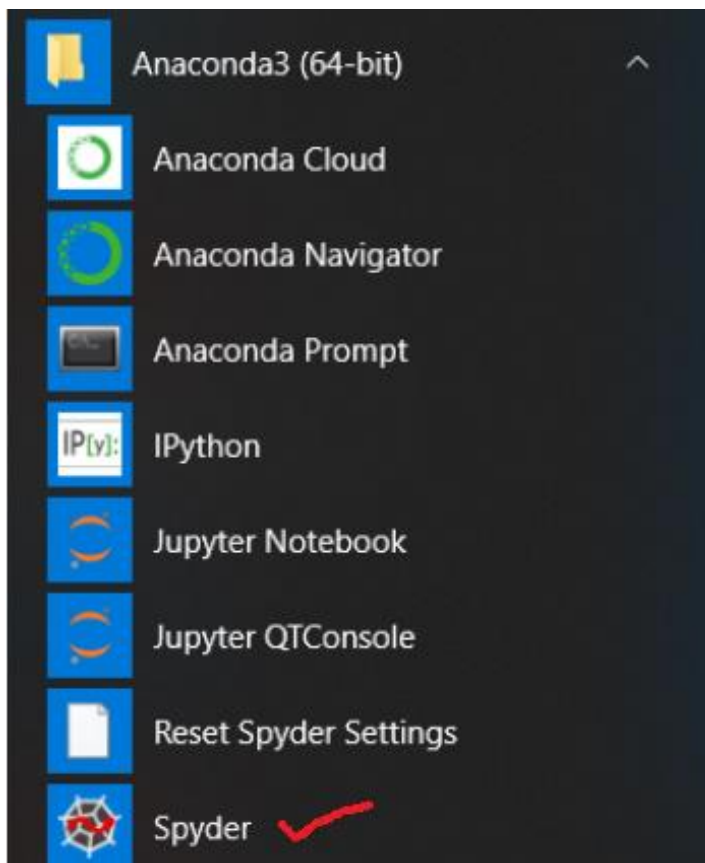
## **SPYDER:**

### **What is Spyder ?**

Spyder stands for **Scientific PYTHON Development EnviRONment**, it is an Integrated Development Environment (IDE) for developing, debugging and maintaining code return in python.

### **Launching Spyder:**

Go to Start in Windows and search for **Anaconda3 (64-bit)** , expand the folder and click on **Spyder**



## **2.4 HARDWARE AND SOFTWARE REQUIREMENTS**

### **HARDWARE REQUIREMENTS:**

System : Pentium IV 2.4 GHz.

Hard Disk : 40 GB.

Floppy Drive : 1.44 Mb.

Monitor : 15 VGA Color.

Mouse : Logitech.

Ram : 512 Mb.

### **SOFTWARE REQUIREMENTS:**

Operating framework : Windows,Mac Os,Linux.

Coding Language : Python,Django

Data Base : Sqlite3

Tools :Anaconda Distribution

## 3. SPFTWARE REQUIRMENTS SPECIFICATION

### 3.1 Functional Requirements

- **Manage Patient Details**
  - **Input:** Details of the patient
  - **Processing:** Viewing details about patient
  - **Output:** Add the files to database.
  -
  
- **Admin Manage Doctor**
  - **Input:** Details of the User Doctor
  - **Processing:** Viewing details about user Doctor
  - **Output:** Add the details to database.
  
- **Admin Manage Prediction**
  - **Input:** Details of the Disease
  - **Processing:** Adding details and query about disease
  - **Output:** Add the details to database.
  
- **Manage Module**
  - **Input:** Details of the module
  - **Processing:** Adding details about module
  - **Output:** Add the details to database.

## 3.2 Non Functional Requirements

- **Adaptability**

documents has changed accordingly based on the customer requirements like sizing of screen, resolution can able to modified , speed of the internet cannot varied etc.

- **Availability**

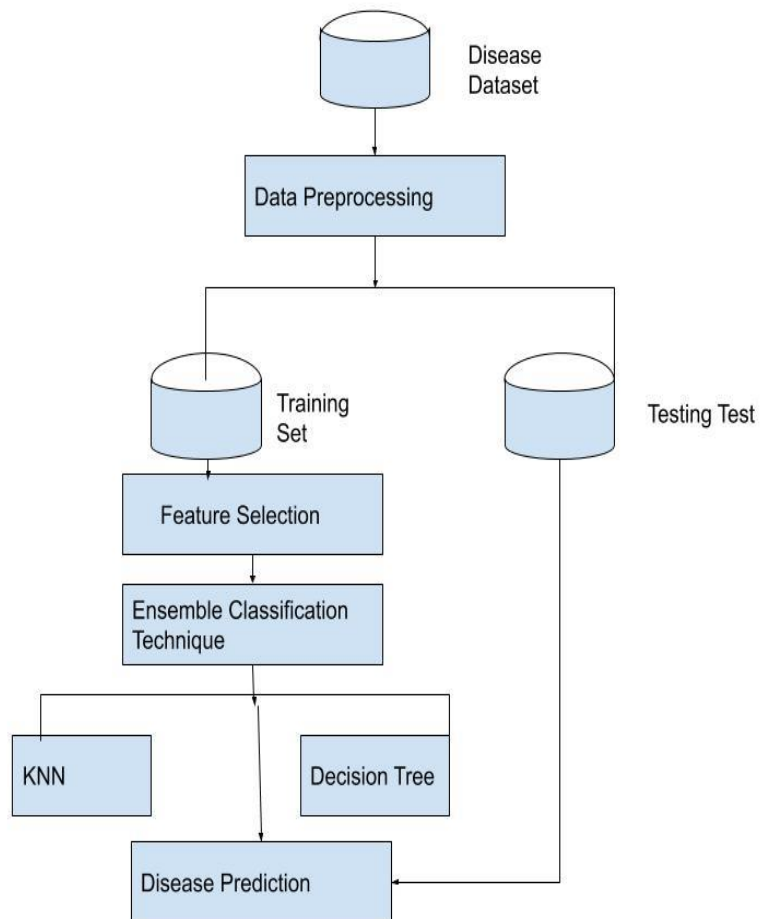
The database connectivity of the system is completely satisfied and it is easy to access the database and they can able to update the database based on their requirement.

- **Maintainability**

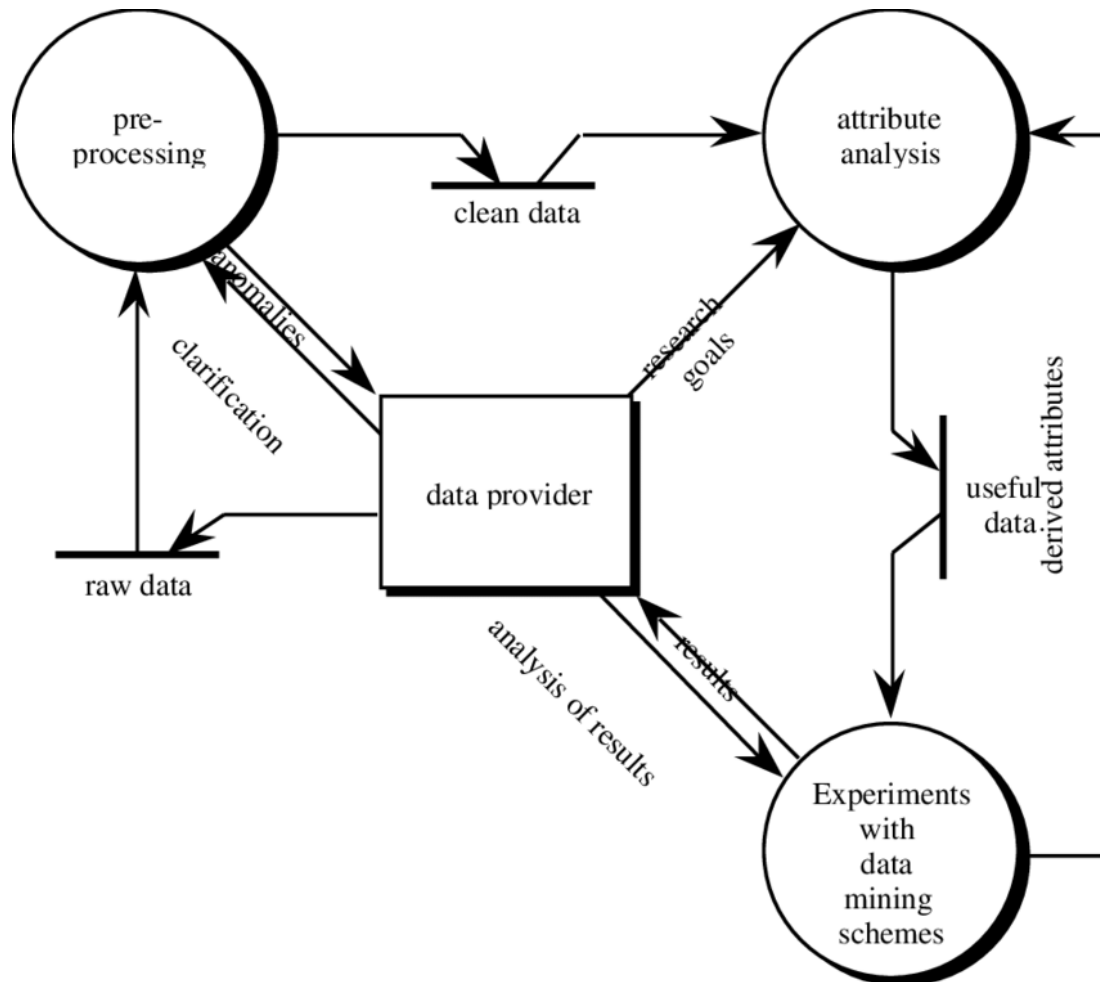
Everyone has to change the project based on the user requirement without affecting the old project flow

## 4. SYSTEM DESIGN

### SYSTEM ARCHITECTURE:



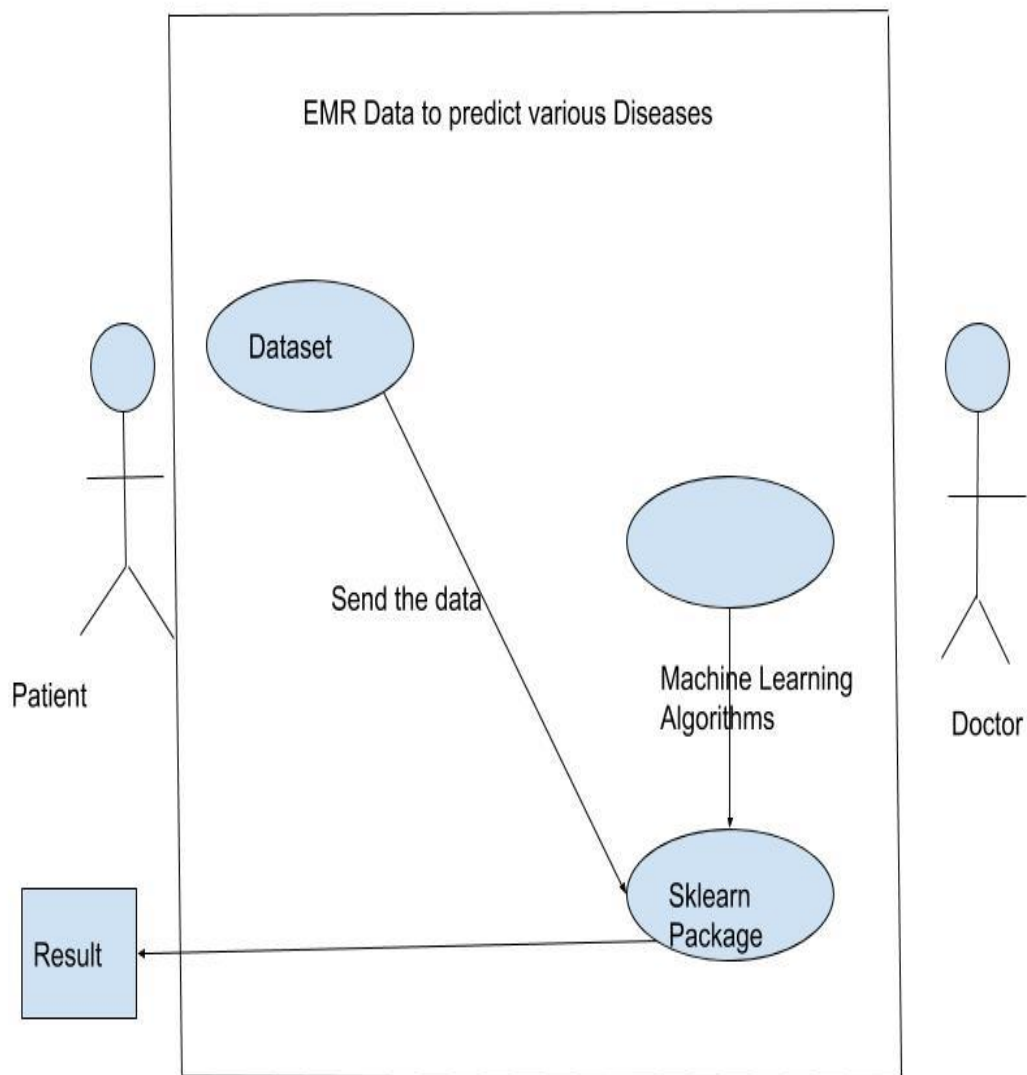
**DFD:**



## 5. DETAILED DESIGN

### 5.1 USE CASE DIAGRAM

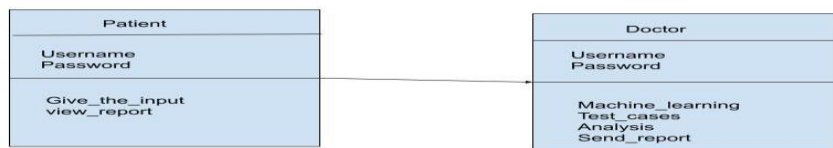
it shows modules of the project work. Doctor module use ml concepts to predict output and patient module view the result





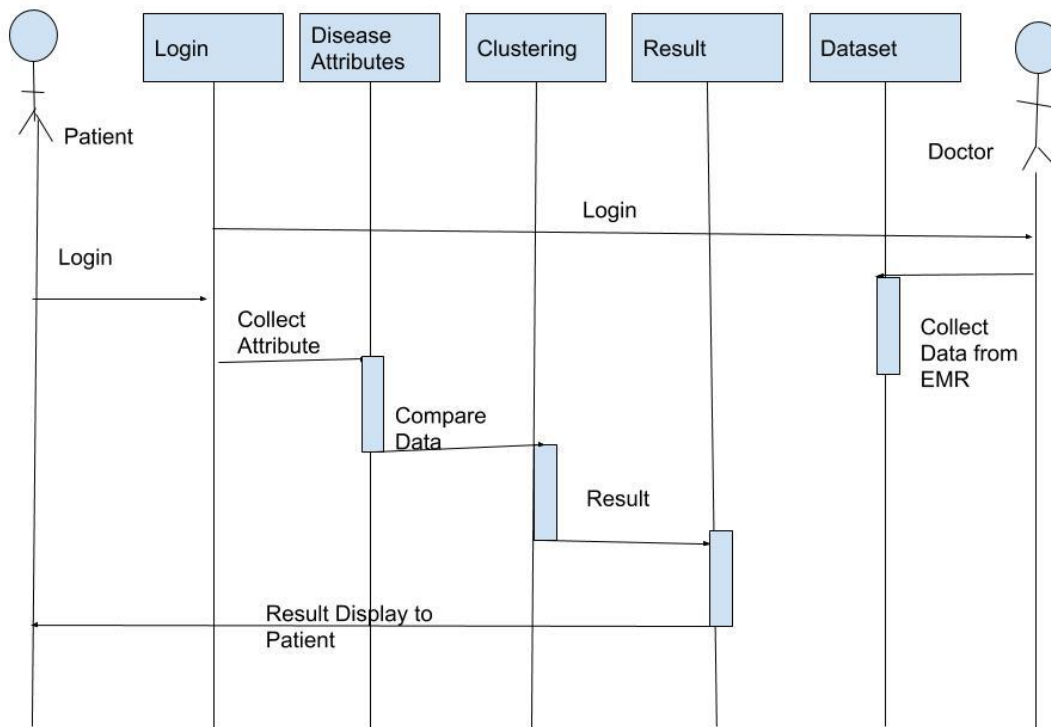
## CLASS DIAGRAM

Class diagram shows the project work flow of particular module. Both the module can login using username and password. But patient can give and view the details. Doctor only predict the output



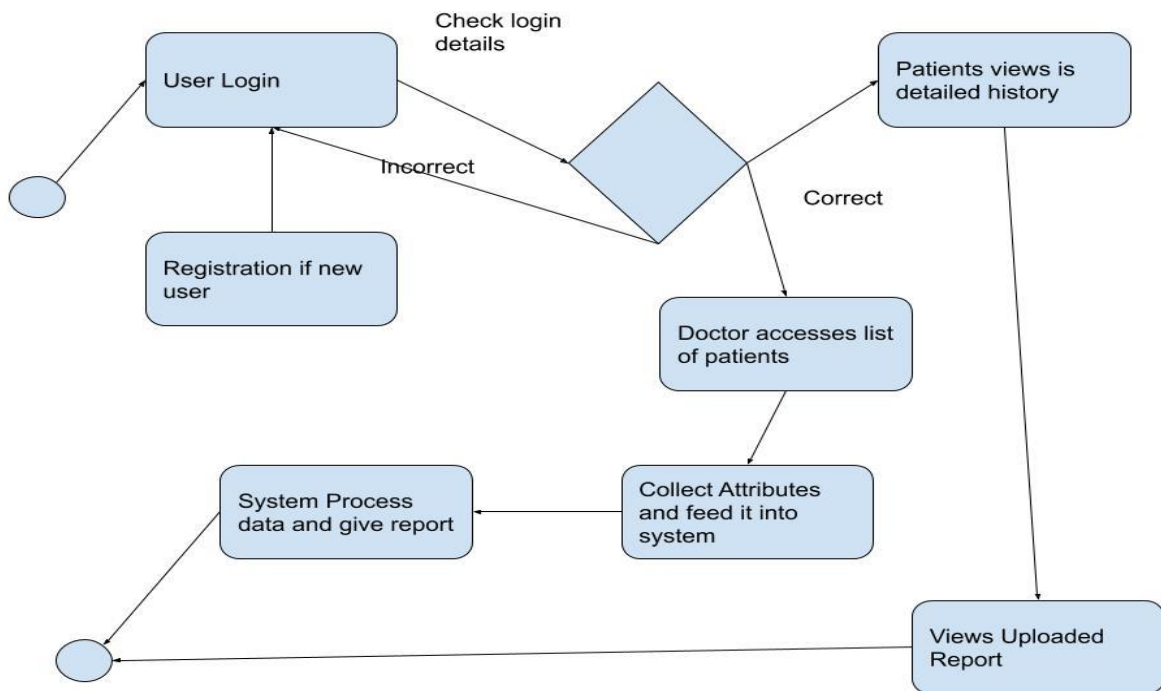
## SEQUENCE DIAGRAM

Sequence Diagram shows the event diagram and timings of the particular module.



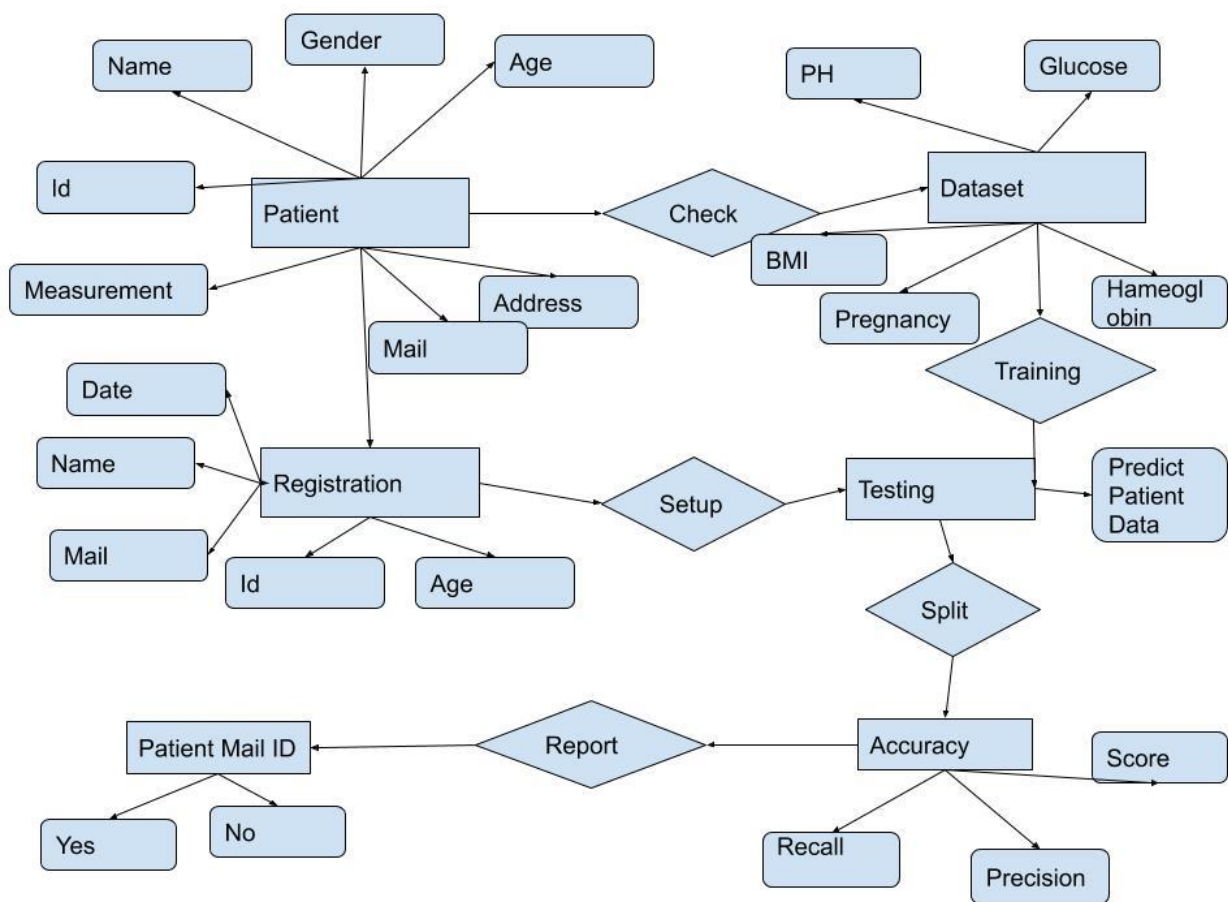
## ACTIVITY DIAGRAM

Activity diagrams are related to the actions of the particular module.



## ER DIAGRAM:

An entity-relationship diagram (ERD) is relation between the attributes and behavior of particular module



## **Problem Statement**

Most of the diseases are related with the way people lifestyles, food habits and environmental surroundings.. Using EMR data we can get number of datas related to particular diseases. This project aim to follow machine learning algorithm like support Decision Trees, K-nearest neighbor to predict particular person diseases whether it is in initial stages or final stages, Moreover, we proposed machine learning model using EMR data that analyzes patient input data to check with trained datasets that form the particular diaseases and later we can prevent the disease further process, most of the diseases arise from people lack of physical exercise, food habits and work stress. The proposed model is very helpful to save most of the patient lives and we can prevent the most of the incurable diseases if we find from starting stages itself means

### **Step 1:**

Open Anaconda Prompt

Change the drive to ur proj particular folder

Then give cmd Python manage.py runserver

### **Step 2:**

Open browser give localhost:8000

Based on app url access the module

For EMR Doctormodule and patient

First in doctormodule do reg

Localhost:8000/doctormodule/register

Then Login

Localhost:8000/doctormodule/login

Aft particular disease give symptoms

localhost:8000/doctormodule/copd

Then predict

Get o/p

**Step 3:**

Now do patient module

In that do reg

localhost:8000/pateint/reg

localhost:8000/login

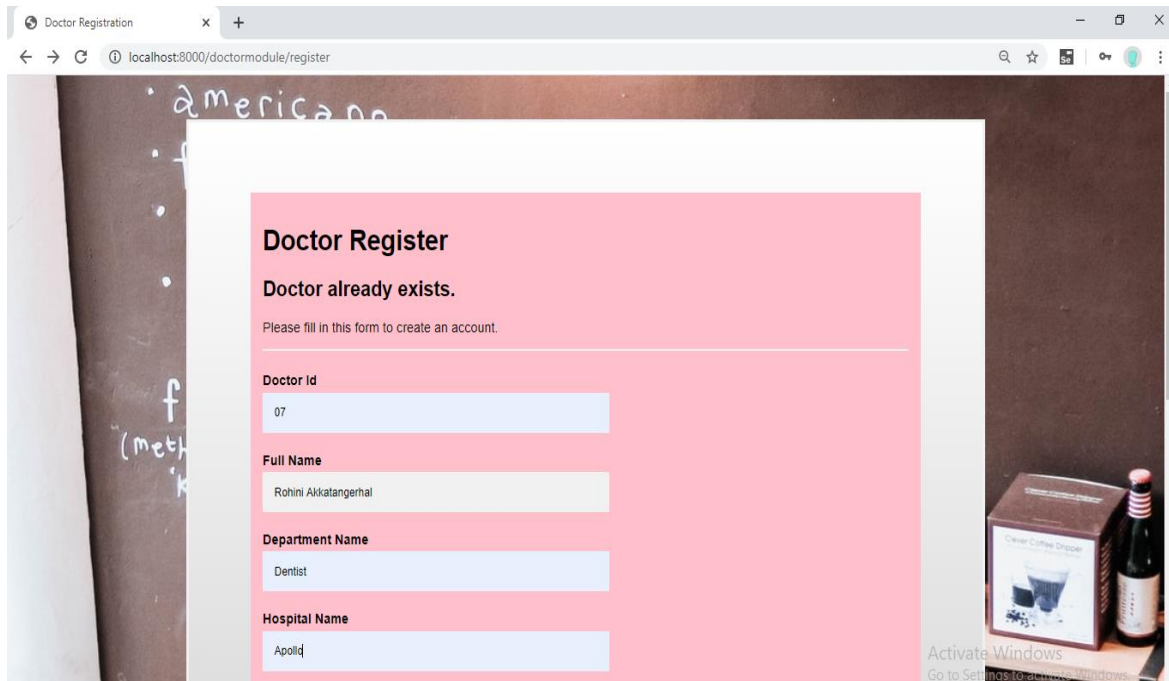
localhost:8000/viewreport

They can view report

## 6. IMPLEMENTATION

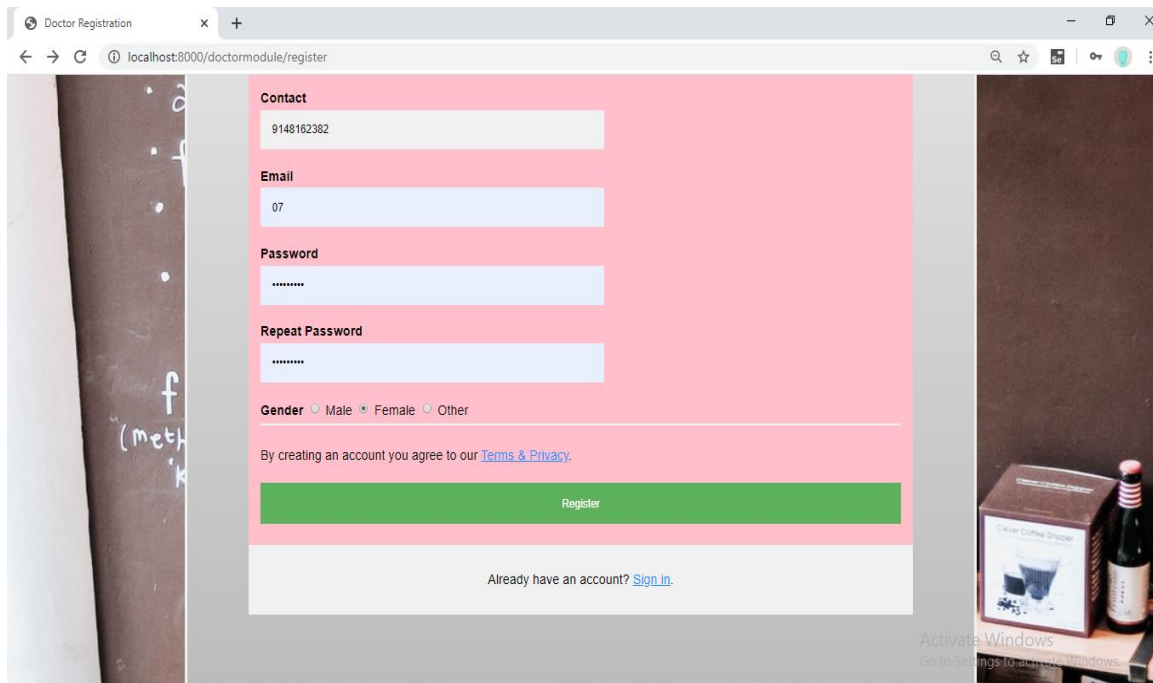
### 6.1 SCREEN SHOTS

Registration form:



The screenshot shows a web browser window with the URL `localhost:8000/doctormodule/register`. The page displays a registration form titled "Doctor Register". A message at the top of the form states "Doctor already exists." and "Please fill in this form to create an account." The form contains the following fields:

- Doctor Id:** Input field containing "07".
- Full Name:** Input field containing "Rohini Akkatangerhal".
- Department Name:** Input field containing "Dentist".
- Hospital Name:** Input field containing "Apollo".



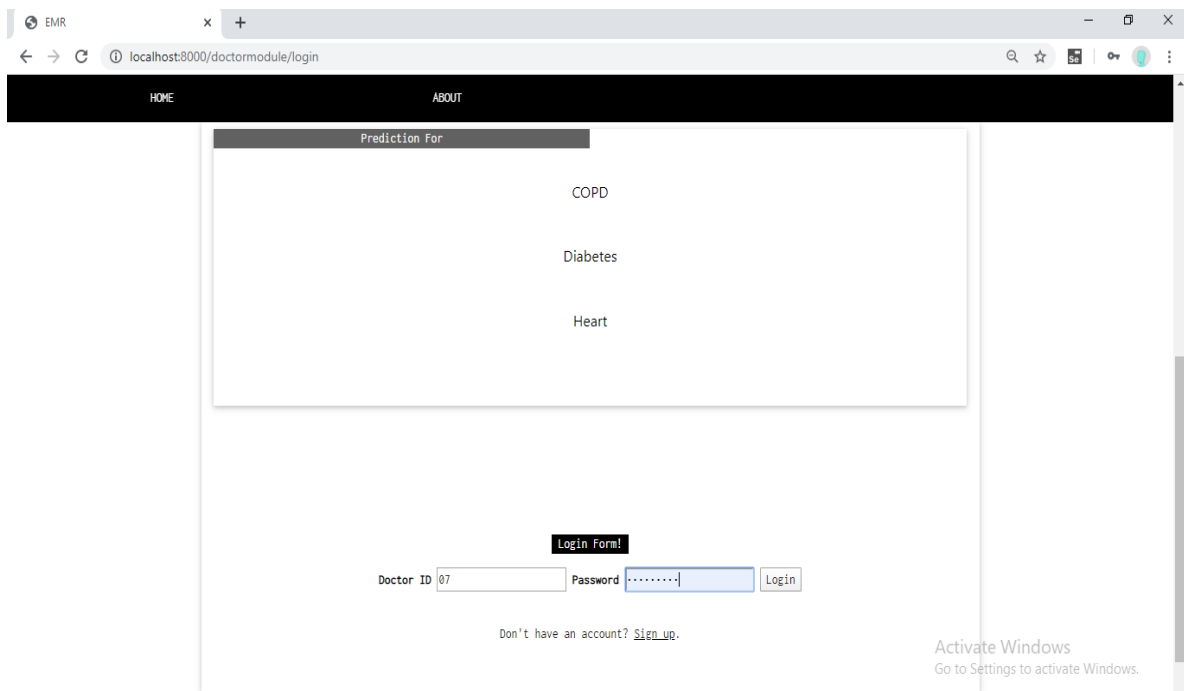
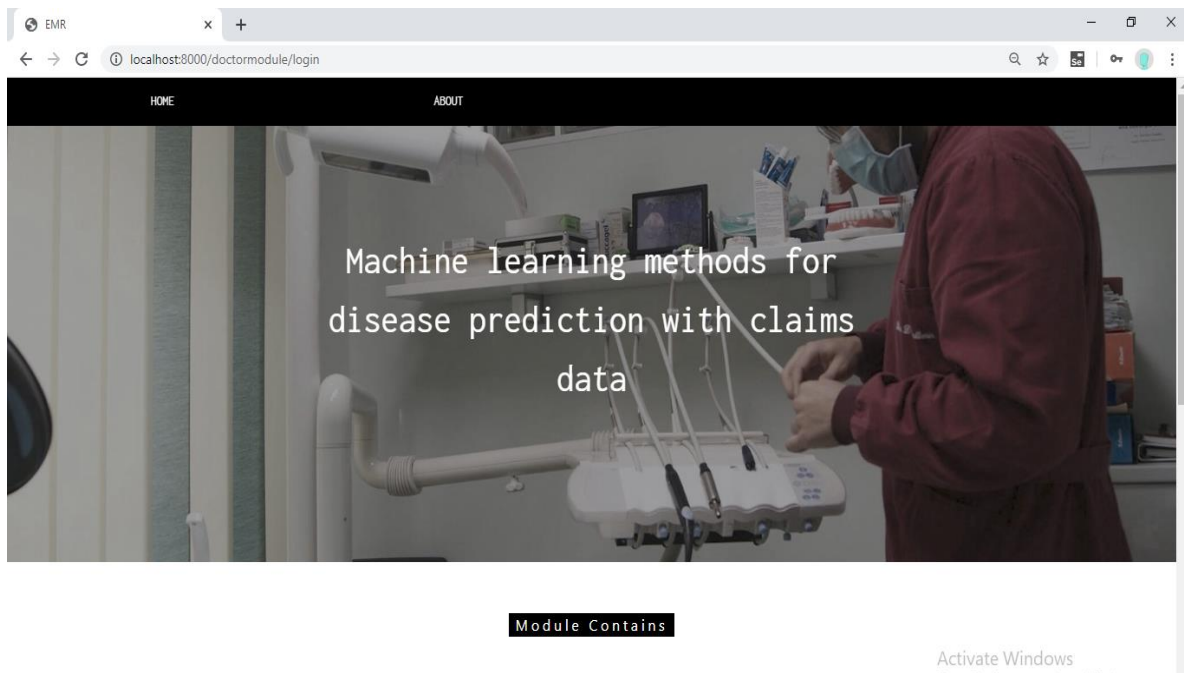
The screenshot shows the same web browser window. The registration form is now displaying the following fields:

- Contact:** Input field containing "9148162382".
- Email:** Input field containing "07".
- Password:** Input field with masked characters ".....".
- Repeat Password:** Input field with masked characters ".....".
- Gender:** Radio buttons for "Male", "Female" (selected), and "Other".

Below the form, there is a green "Register" button and a link for "Already have an account? [Sign in.](#)".

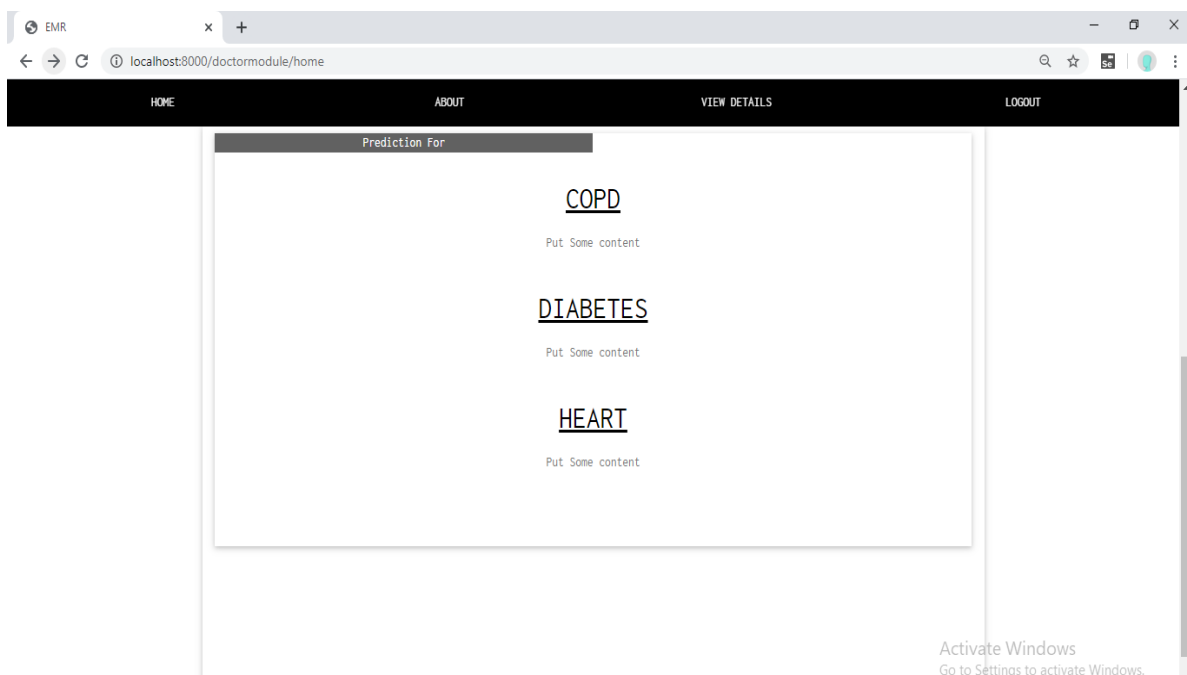
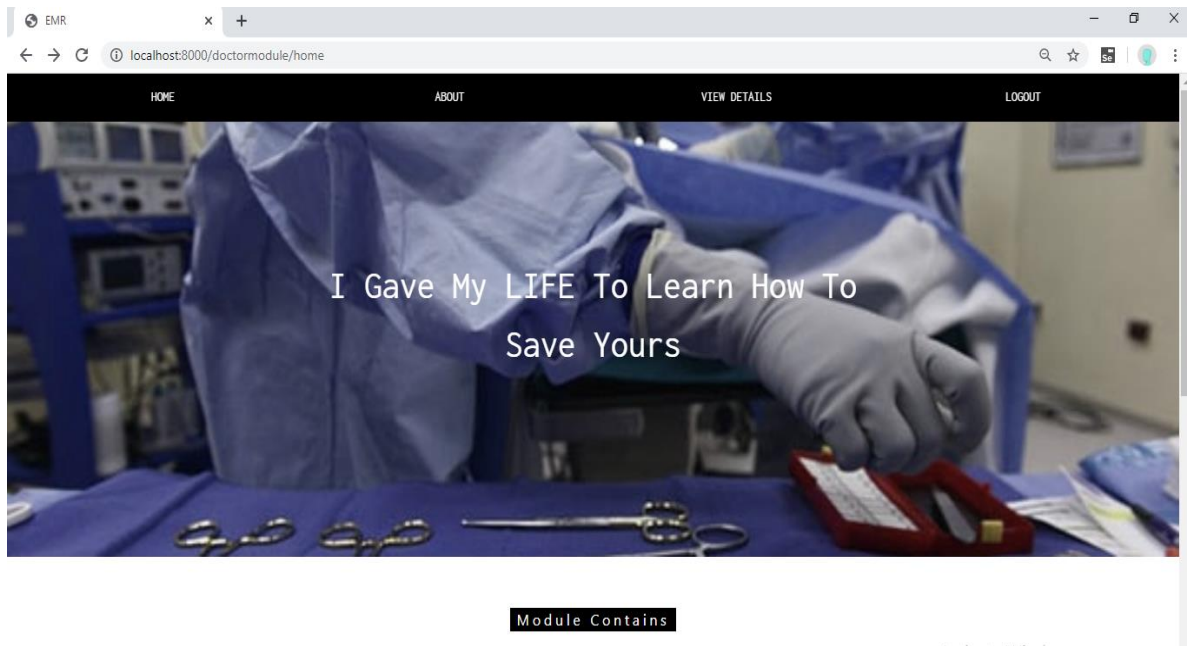
Doctor registration from first we have to put all information and then click button register. After that we have to sign in to next page.

## LOGIN FORM:



This will be doctor login form in this we have putting the data's it will automatically taken by the registration from and after we have to click the login button

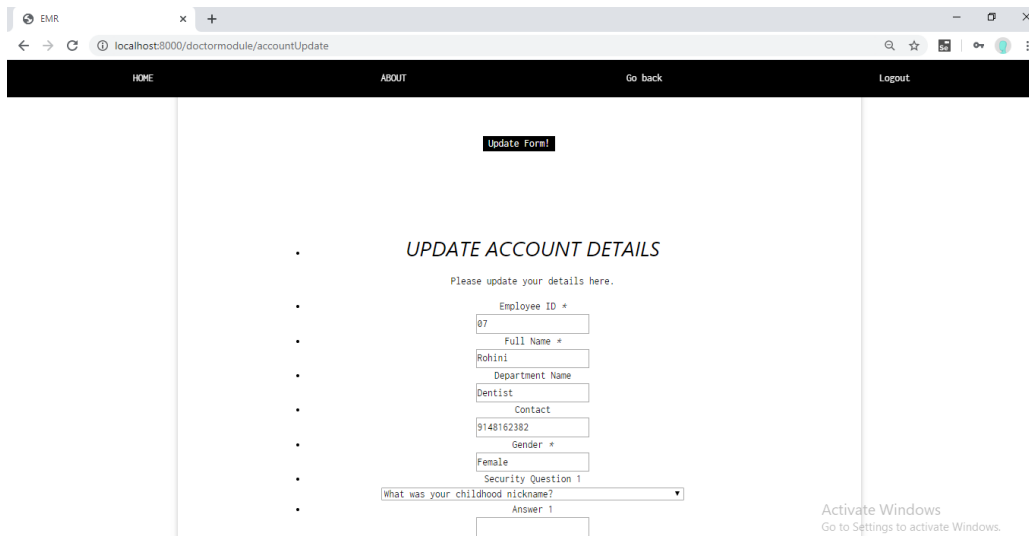
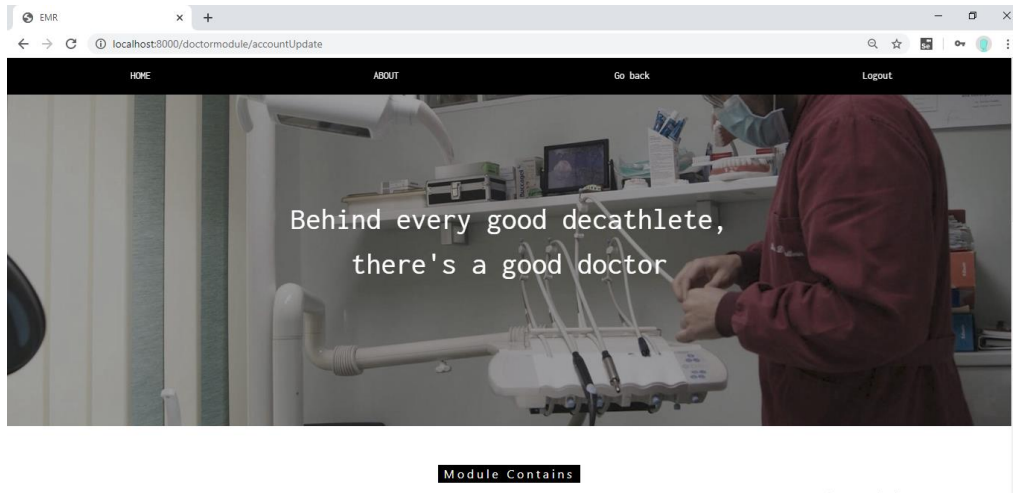
## HOME PAGE:



After clicking the login button it will be open the home page in this page it will shown all the three diseases we have to click one by one



# ACCOUNT UPDATE FORM:



EMR

localhost:8000/doctormodule/accountUpdate

HOME ABOUT Go back Logout

Contact

9148162382

Gender \*

Female

Security Question 1

What was your childhood nickname?

Answer 1

Security Question 2

What school did you attend for sixth grade?

Answer 2

Email \*

rohini1997akkatangerh

Old Password \*

New Password \*

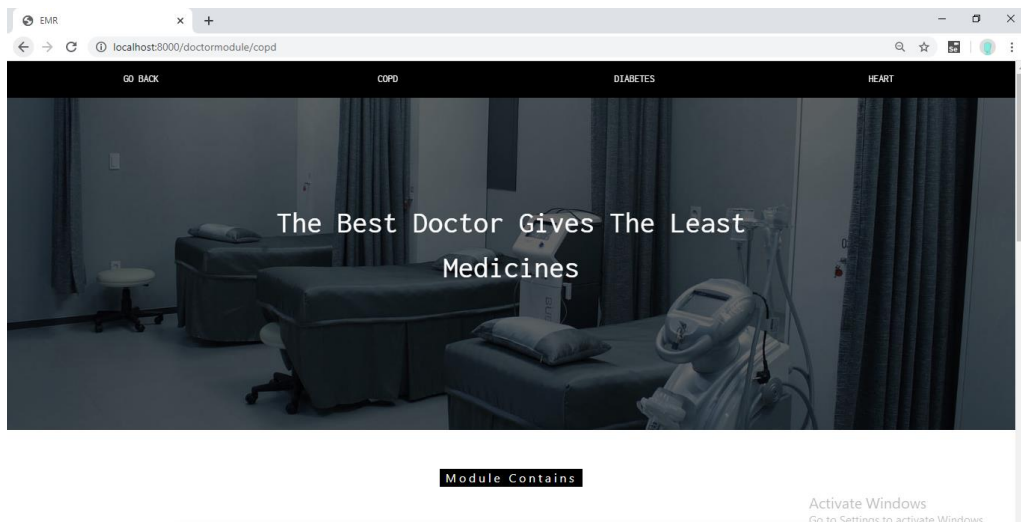
At least 1 Upper Case, Lower Case, Number and L

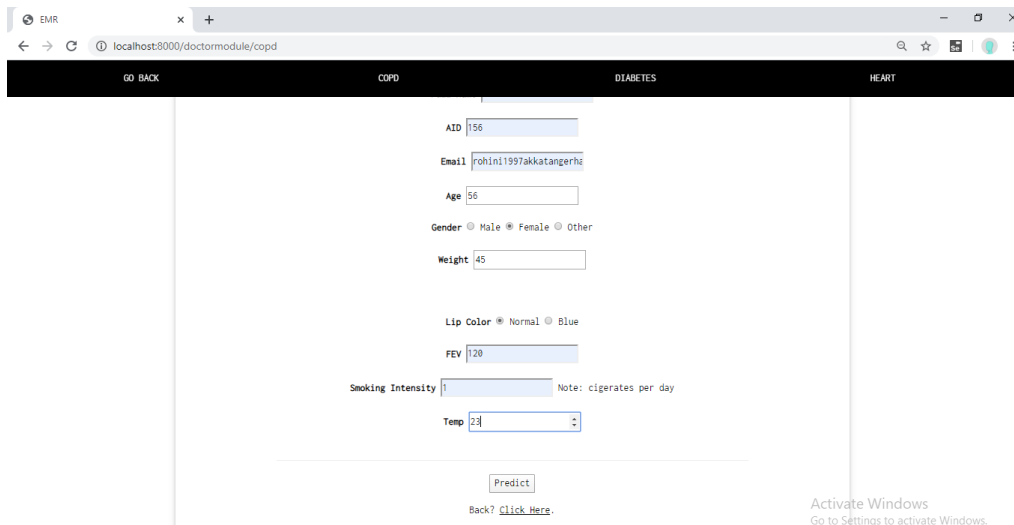
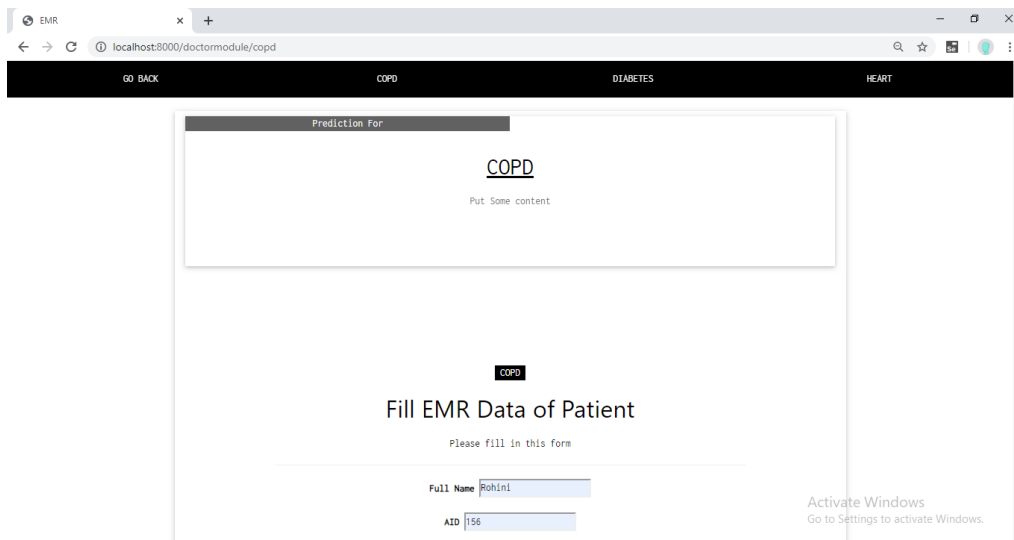
Confirm New Password \*

Save Changes

This will be the view details form suppose we have to update our password or account details this form will help

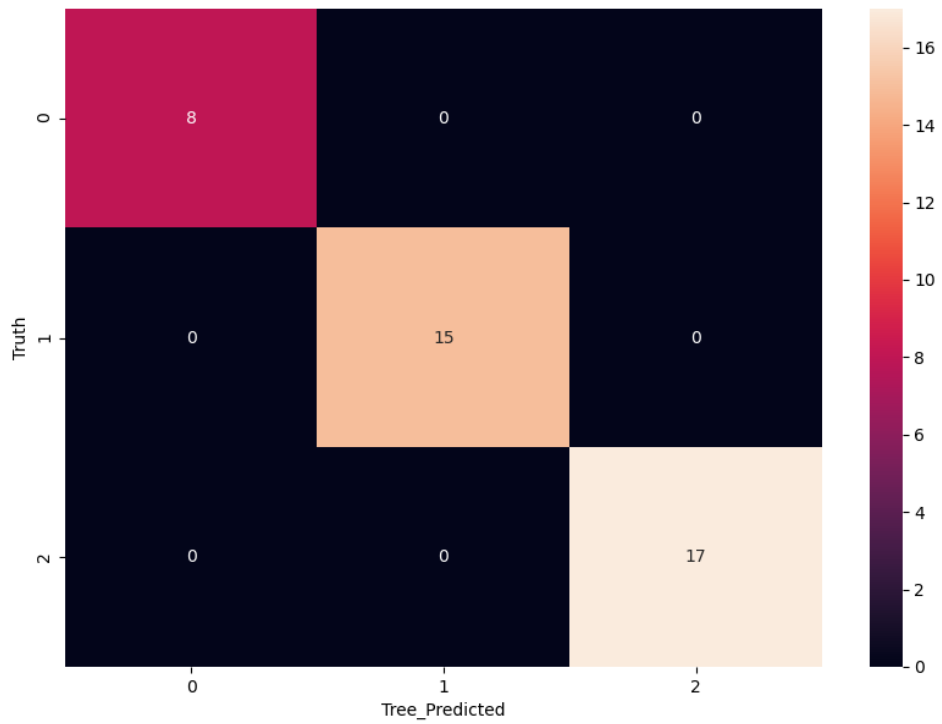
## COPD FORM:





This will be the COPD form after we have fill the all information of patient it will predict the result.

Figure 1



### Patient Medical Report Inbox x



techcitifyou@gmail.com

3:42 PM (3 minutes ago)

to me ▾

Hi,

Patient Name :Rohini

Patient AID : 156

Patient Email : [rohini1997akktangerhal@gmail.com](mailto:rohini1997akktangerhal@gmail.com)

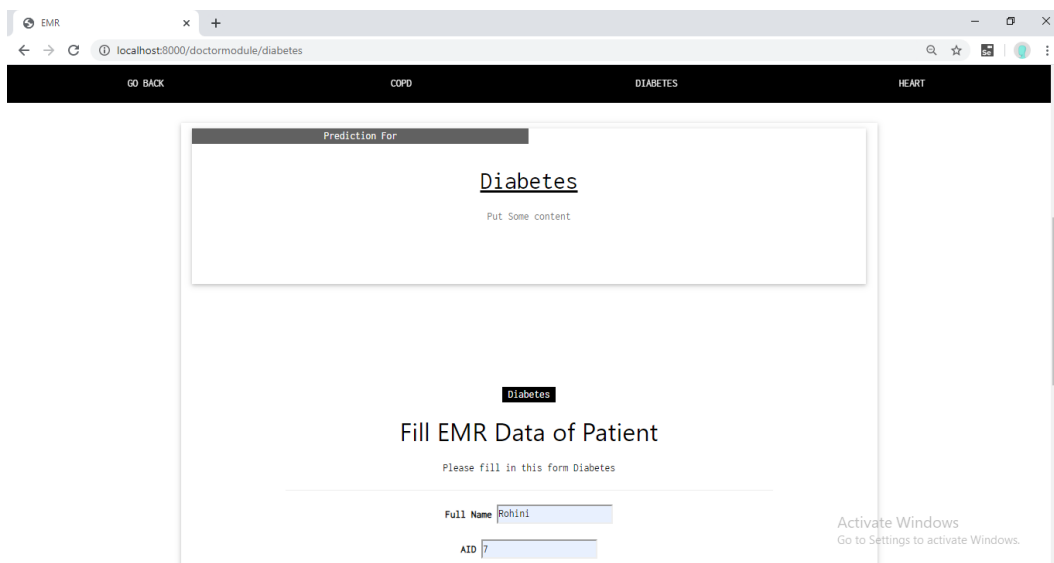
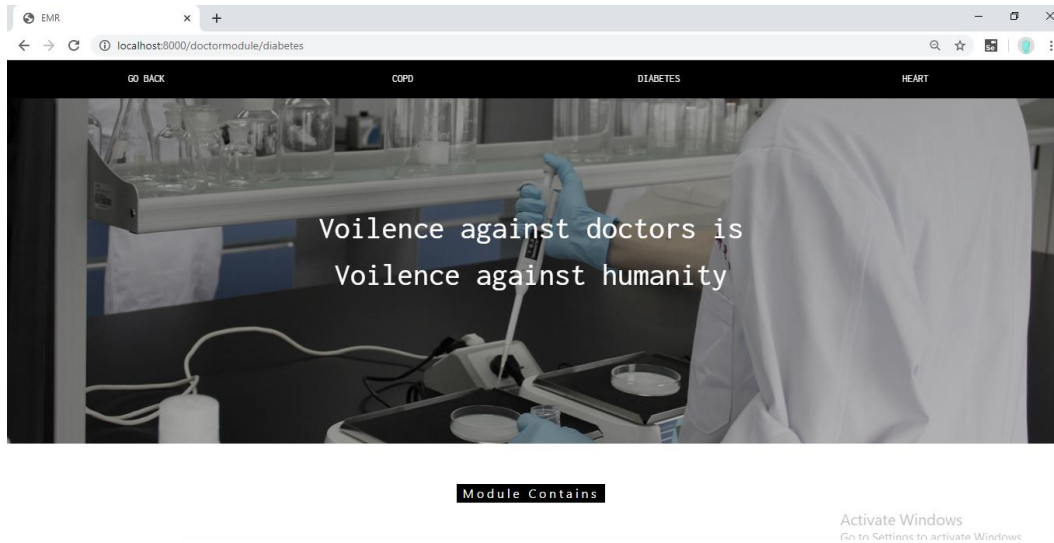
Patient Gender :0

Patient Type : COPD

Disease Stage : [severe]

Patient Treatment : 1.quit smoking,pulmonary rehab,2.short-acting bronchodilators,long-acting bronchodilators,bullectomy,3.lung transplant

# DIABETES FORM:



EMR

localhost:8000/doctormodule/diabetes

GO BACK COPD DIABETES HEART

Email

Gender

Note:1 -->Male|0--->Female

Pregnancies

Glucose

BloodPressure

SkinThickness

Insulin

BMI

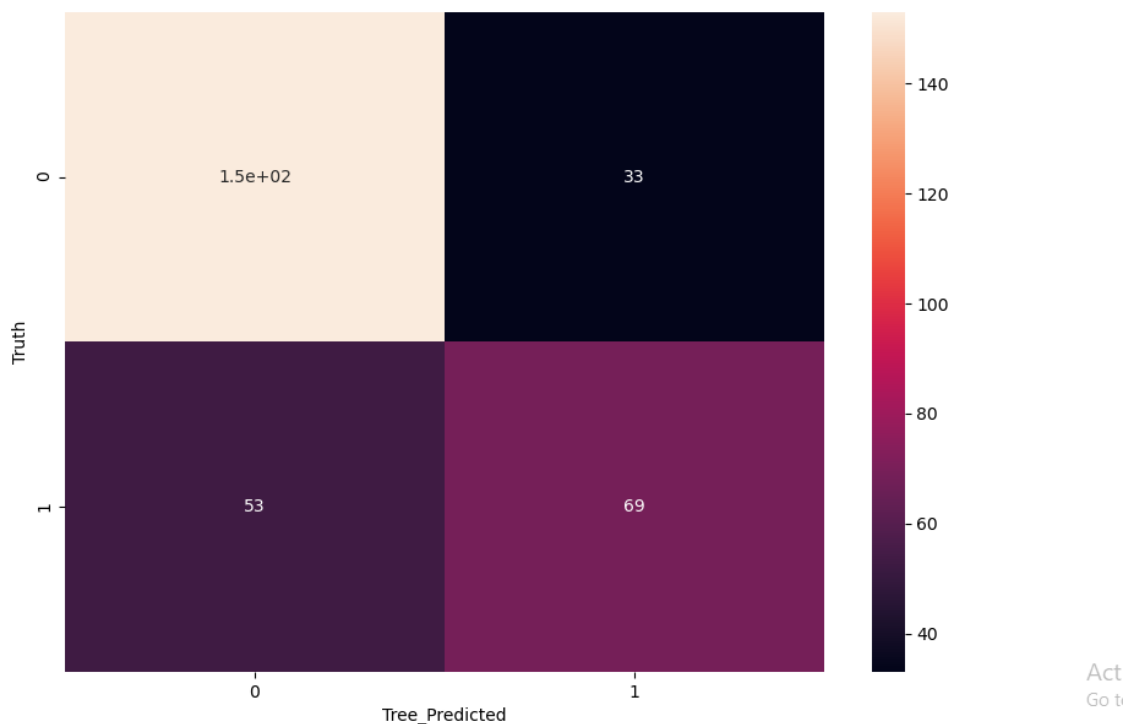
DiabetesPedigreeFunction

Age

Activate Windows  
Go to Settings to activate Windows.

This is also same as per the COPD we will put all the information of diabetes patients and click to predict it will predict the result of patient.

Figure 1





techcitiforyou@gmail.com

to me ▾

Hi,

Patient Name :Rohini

Patient AID : 7

Patient Email : [rohini1997akkatangerhal@gmail.com](mailto:rohini1997akkatangerhal@gmail.com)

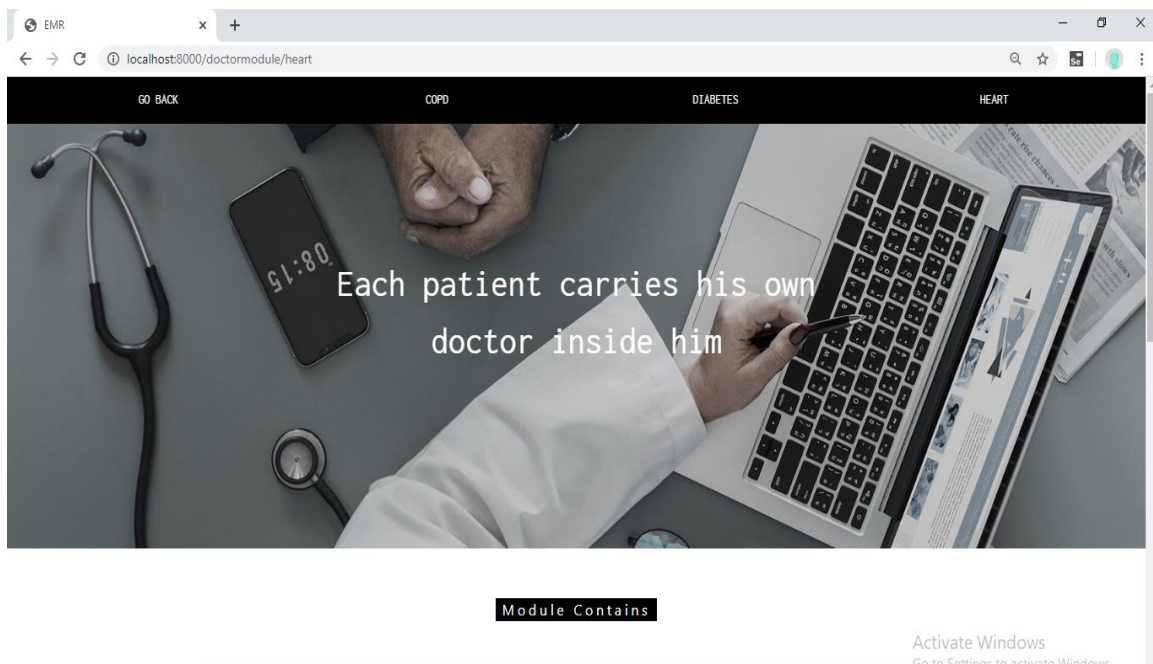
Patient Age :23

Patient Type : Diabetes

Disease Stage : [0]

Patient Treatment :Moderate sugar , no need any treatment

## HEART FORM:



**Heart**

## Fill EMR Data of Patient

Please fill in this form Heart

---

Full Name  AID

Email  Age

sex  cp

trestbps  chol

fbs  restecg

thalach  exang  oldpeak

slope  ca  thal

Activate Windows  
Go to Settings to activate Windows.

This is the third disease heart patients this is also same as per above two diseases in this also we have to put heart patient information and predict the result.

NOTE: sir these three disease result I have not taken the screen shots bcz I have not yet done after I have completing I will send the screen shots.



## Final Results

Patient Name : Rohini  
Patient AID : 156  
Patient Email : [rohini1997akktangerhal@gmail.com](mailto:rohini1997akktangerhal@gmail.com)  
Patient Gender : 1  
Patient Type : DIABETES  
Patient Stage : [0]  
Patient Treatment : no heart disease



**techcitiforyou@gmail.com**

to me ▾

Hi,

Patient Name :Rohini

Patient AID : 156

Patient Email : [rohini1997akktangerhal@gmail.com](mailto:rohini1997akktangerhal@gmail.com)

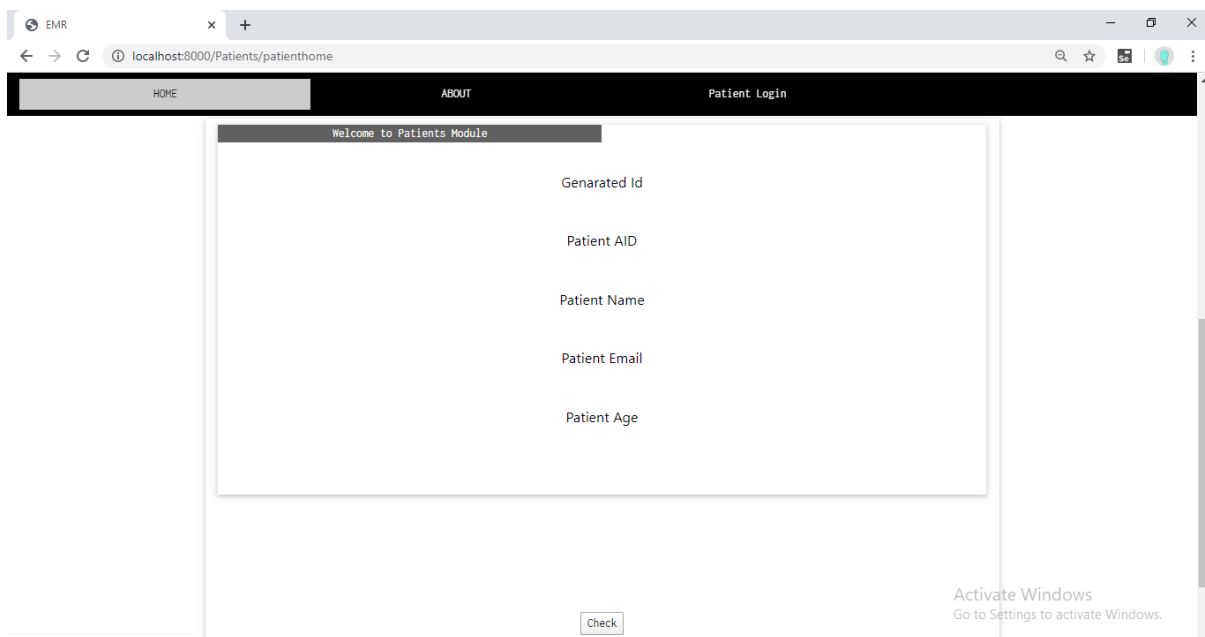
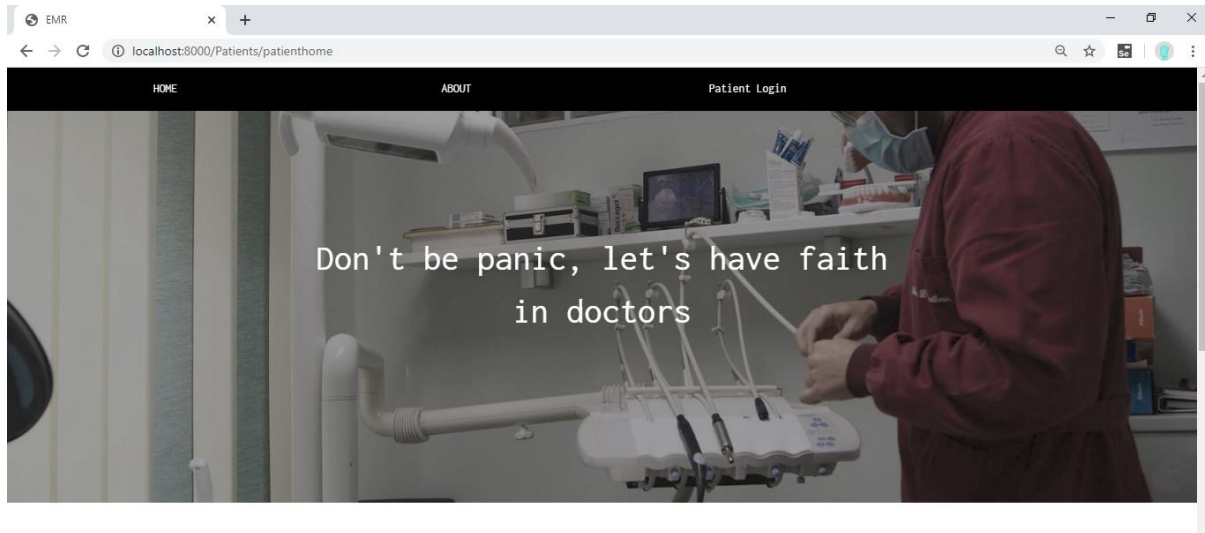
Patient Age :45

Patient Type :

Patient Stage : [0]

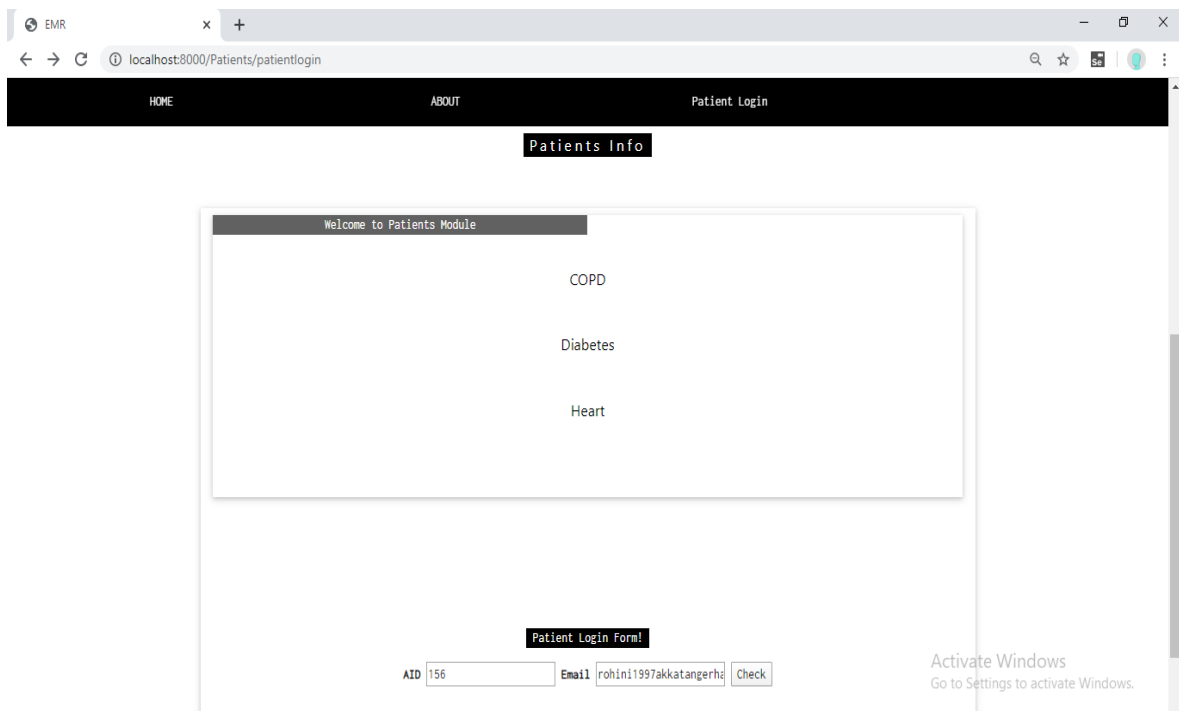
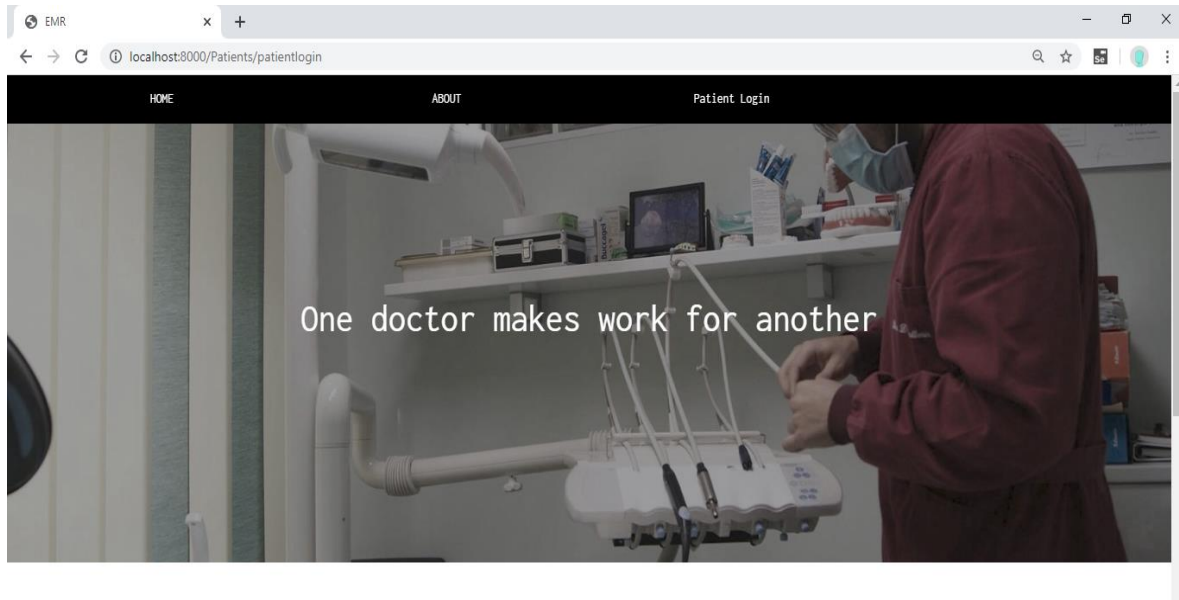
Patient Treatment :no heart disease

## PATIENT HOME PAGE:



This will be the patients home page in this form we have to give the details we can see the report of patients.

## LOGIN FROM:



This is the patients login form we have to put patient id and email and click the button it will be login to next page.

NOTE: now I have completed this much of work sir.

After checking the report it will shows error that is what I'm telling u that day. Plz check mam.

```
MultipleObjectsReturned at /Patients/patientlogin
get() returned more than one Patients -- it returned 42!

Request Method: POST
Request URL: http://localhost:8000/Patients/patientlogin
Django Version: 2.1.7
Exception Type: MultipleObjectsReturned
Exception Value: get() returned more than one Patients -- it returned 42!
Exception Location: C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32\lib\site-packages\django\db\models\query.py in get, line 401
Python Executable: C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32\python.exe
Python Version: 3.8.3
Python Path: ['E:\disease\vnhiro\EMR',
              'C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32\python38.zip',
              'C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32\DLLs',
              'C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32\lib',
              'C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32',
              'C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32\lib\site-packages']
Server time: Fri, 5 Jun 2020 10:27:02 +0000

Traceback Switch to copy-and-paste view
C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32\lib\site-packages\django\core\handlers\exception.py in inner
34.         response = get_response(request)
    ▶ Local vars

C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32\lib\site-packages\django\core\handlers\base.py in _get_response
126.         response = self.process_exception_by_middleware(e, request)
    ▶ Local vars

C:\Users\Lenovo\AppData\Local\Programs\Python\Python38-32\lib\site-packages\django\core\handlers\base.py in _get_response
124.         response = wrapped_callback(request, *callback_args, **callback_kwargs)
    ▶ Local vars

E:\disease\vnhiro\EMR\Patients\views.py in patientlogin
25.     patientdetails = Patients.objects.get(AID=AID)
    ▶ Local vars
```

## **7.SOFTWARE TESTING**

The testing is mainly used to identify the errors in the project. Testing plays a vital role in all the software products. because all the user requirements should be satisfied here. This is the method to find the defects or faults in the software product. once the project has done we have to check all the attributes and whether the customer satisfaction has to be done or not. Each form we need to check validation and whether the particular fields becomes blank means we need to show the error to the user. So the complete test cases of the project has to be done in this testing system.

### **TYPES OF TESTS**

#### **Functional Test**

This testing will give the demo of the functions tested area and it will satisfy the customer needs, it will validate the user input and output based on the customer satisfaction.

#### **System Test**

This testing is mainly used to check whether the customer requirement is completely satisfied or not. the system test will monitor the complete functionality of the software and it will be used to find the complete bugs in the project so the developer can able to find the error at the time of developing and all the validation related errors and missed fields error everything should be done by system test.

#### **White Box Testing**

In this testing we have to know the inner working of the project. if tester understand the working then only they can able to do this testing. In this testing the tester can able to see the code and they can able to modify the code and internal working of the projects. if they changed also the system has to be work fine. This testing should be very important for all the software products.

#### **Black Box Testing**

This testing can able to done by anyone. Because the working of the project is not necessary. This testing has to be done based on the user requirement and specification. If no one knows the flow of the project also can able to do Black box tests, they have to prepare complete document of the testing and test case everything has done by using black box testing.

## 8. CONCLUSION

Diseases that are related to the individual persons or group of persons live their lifestyle and habitual activities and food etc. In EMR data we can get the confidential details of high society person also. In this proposed system we are using machine learning algorithms like Decision Trees, K-nearest neighbor and use it to predict diseases whether it is initial or final stages so it should recover the patient if we find as soon as possible means. Moreover, we proposed machine learning model using EMR data that analyzes patient input data to check with trained datasets that form the particular diseases and later we can prevent the disease further process, most of the diseases arise from people lack of physical exercise, food habits and work stress. The proposed model is very helpful to save most of the patient lives and we can prevent the most of the incurable diseases if we find from starting stages itself means.

## **9. FUTURE ENHANCEMENT**

In future the disease that should be more and list of added bio-marker is also added more for more accurate final result for predict for the diseases. And not only cancer, cardiopathy, arthritis, other chronic disease should even be taken care of for starting stages detection. In future is that the big expect to detect against cancer, cardiopathy. Due to nature environment and food habits there are so many chances to affect people by various types of disease. So we want to prevent ourselves we should take measure of our health using this machine learning algorithm .It is useful to prevent or cure the various stages of diseases.