

## Phase 6

### Application Performance Metrics

Date	08 November 2022
Team ID	PNT2022TMID28916
Project Name	Project - Visualizing and Predicting Heart Diseases with an Interactive Dash Board
Maximum Marks	4 Marks

### Error Rates:

```
print('Logistic Regression :',l)
print('KNN :',k)
print('Naive Bayes :',n)
print('Decision Tree :',d)
```

```
Logistic Regression : 0.8271604938271605
KNN : 0.6111111111111112
Naive Bayes : 0.7794117647058824
Decision Tree : 0.7962962962962963
```

### Accuracy Percentages:

The number of wrong predictions on the test set as a whole divided by all of the test set predictions yields the error rate. Since accuracy and error rate are complementary quantities, we can always compute one from the other.

$$\text{Accuracy} = 1 - \text{Error Rate}$$

$$\text{Error rate} = 1 - \text{Accuracy}$$

Logistic Regression: 0.82

KNN: 0.61

Naïve Bayes: 0.77

Decision Tree: 0.79

Calculating the error rates:

Logistic Regression:  $1 - 0.82 = 0.18$

KNN:  $1 - 0.61 = 0.39$

Naïve Bayes:  $1 - 0.77 = 0.23$

Decision Tree:  $1 - 0.79 = 0.21$

The Error rates are:

Logistic Regression: 0.18

KNN: 0.39

Naïve Bayes: 0.23

Decision Tree: 0.21

### Response Time:

The response time is not too long as our project as we have used real time data analysis. So, once the user enters his/her data in the Heart Disease prediction phase then the data will immediately be displayed so the response time is very less.

Our output is given below,



The screenshot shows a web application titled "Heart disease prediction app". It features a form with 14 input fields for user data, each with a corresponding label and a value. The fields are: Age (67), Sex (2), Chestpaintype (2), FBSover (2), MaxHR (160), Exerciseangina (2), Cholesterol (564), BP (115), EKGresults (2), Thallium (7), STdepression (1.6), Numberofvesselsfluoro (2), and SlopeofST (2). Below the form, the prediction result is displayed as "The Prediction of heart disease is: 100.0 % Presence", accompanied by a green "clear" button. At the bottom, the text "PNT2022TMID28916- Srishti, Jenefa, Jessica, Harini." is visible.

Field	Value
Age	67
Sex	2
Chestpaintype	2
FBSover	2
MaxHR	160
Exerciseangina	2
Cholesterol	564
BP	115
EKGresults	2
Thallium	7
STdepression	1.6
Numberofvesselsfluoro	2
SlopeofST	2

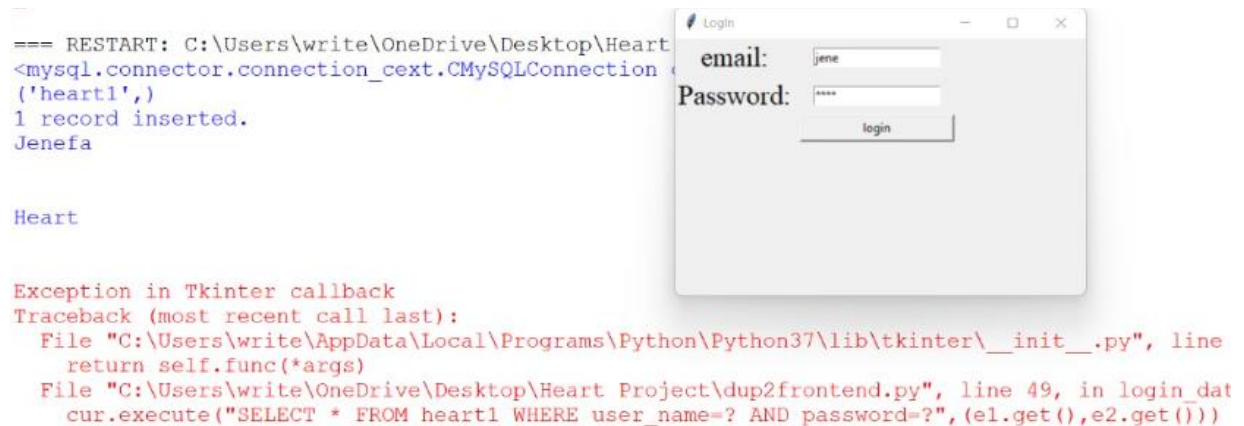
The Prediction of heart disease is: 100.0 % Presence clear

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## Request Rate:

Due to the usage of real-time data analysis in our project, the request rate was not excessively long. As a result, there is very little response time once the user inputs their information during the Heart Disease prediction phase.

Our Login Page,



## Customer Experience:

Our Application is very easy to use. Initially it has login page which makes the application very secured. If user enters correct username and password then it moves to predicting page. In the predicting page the user enter his medical history (data), after which it predicts the whether there chance of heart disease or not. People will get a clear vision upon heart disease and the symptoms.

It is User friendly and very functional and Reliable.

Example, if the user does not enter the value then an Error appears.

This will give instant alerts to the user and provides a great user experience.

Heart disease prediction app

Age:	0
Sex:	0
Chestpaintype:	0
FBSover	0
MaxHR	0
Exerciseangina	0
Cholesterol	0
BP	0
EKGresults	0
Thallium	0
STdepression	0
Numberofvesselsfluro	0
SlopeofST	0

The Prediction of heart disease is:

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Error

Enter all the data

OK

Done By:

- Srishti R
- Jenefa Regina Mary J
- Jessica Tiffany D
- Haini M

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