

# **Wireframe Document**

## **Heart Disease Diagnostic Analysis**



**Revision Number - 1.2**  
**Last Date of Revision - 20/01/2023**

**Samyak Ingle**

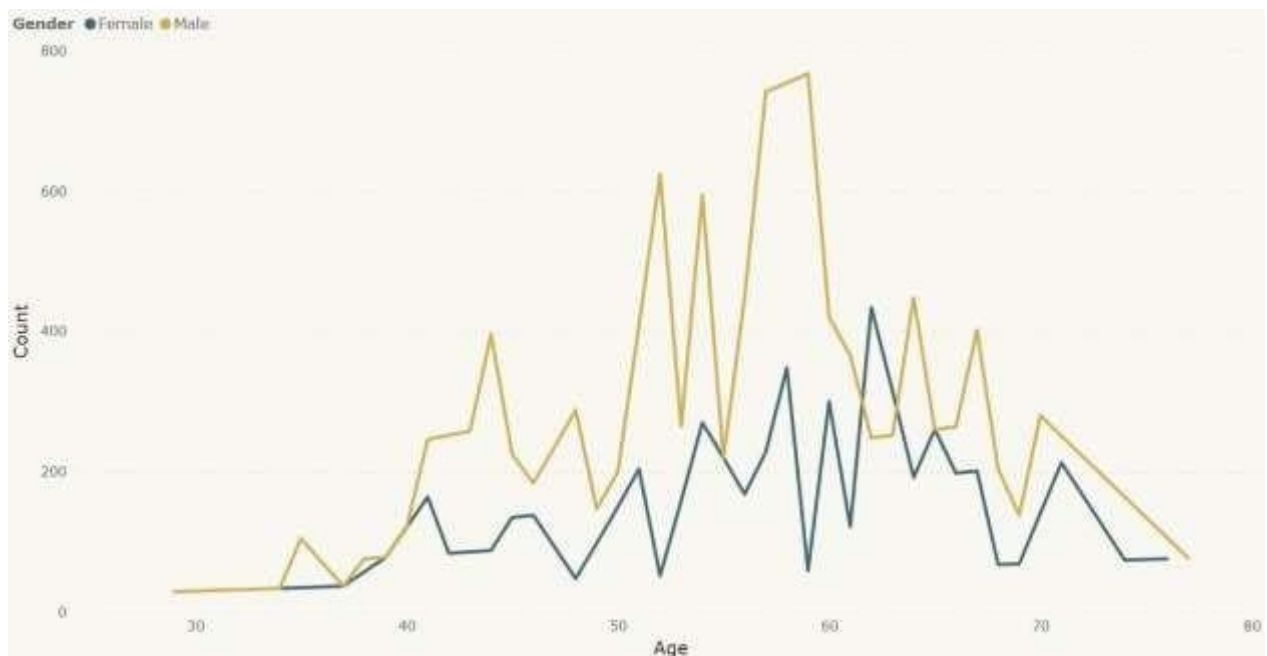
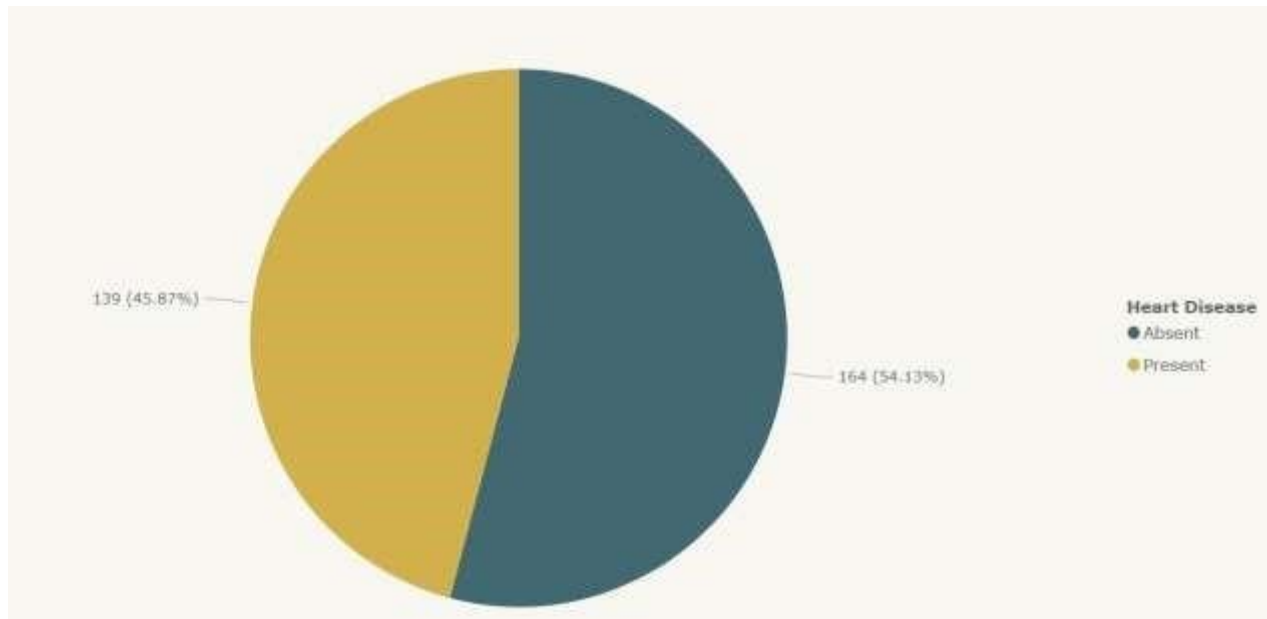
## Document Control

Date	Version	Description	Author
11/01/2022	1.0	Introduction, Problem Statement	Saakar
14/01/2022	1.1	Dataset Information, Architecture Description	Saakar
20/01/2022	1.2	Final Revision	Saakar

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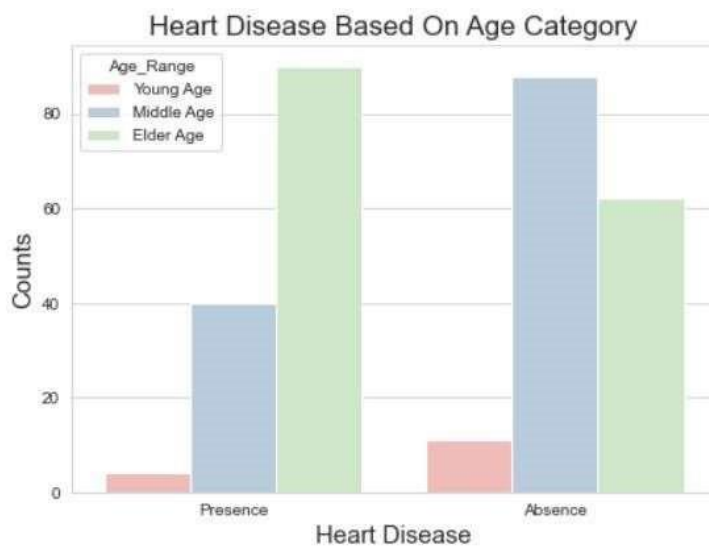
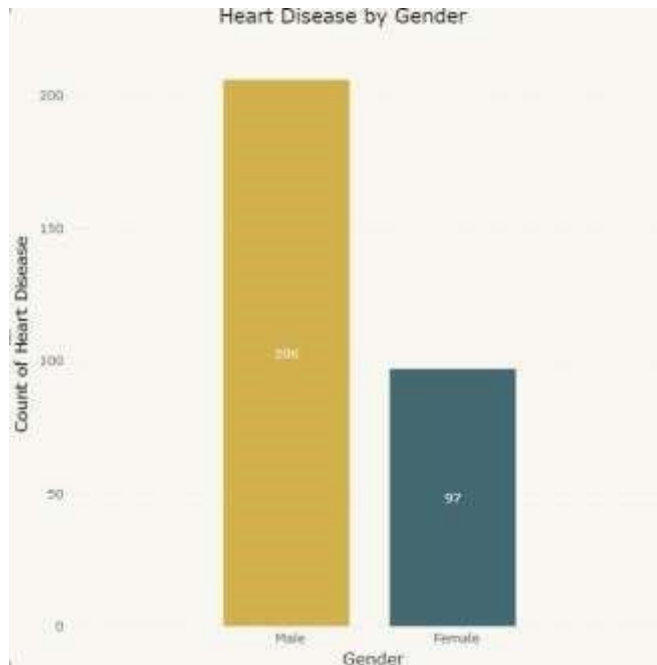
**We Performed Exploratory Data Analysis on Jupyter Notebook and then created a Power BI Desktop Dashboard.**

**1. What Kind of Population do we have?**

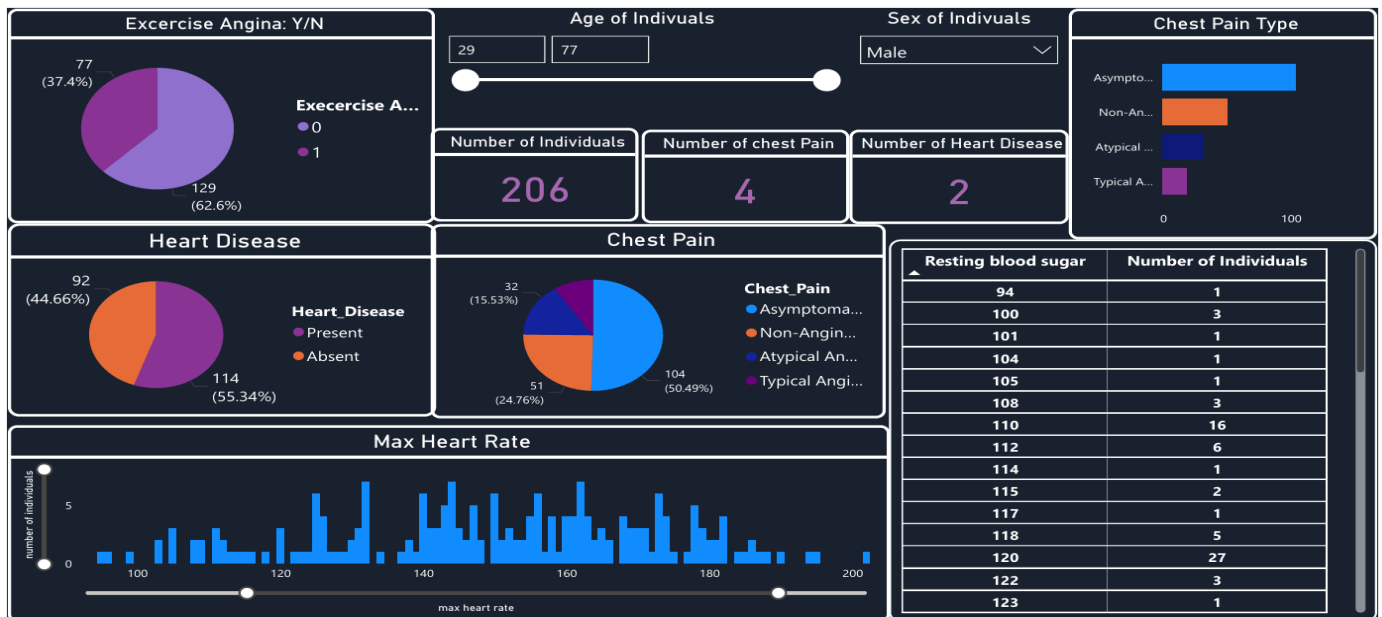


- 45.87% People suffering from heart disease.
- Elderly Aged Men are more (50 to 60 Years) and Females are more in 55 to 65 Years Category

## 2. Who Suffers from Heart Disease?

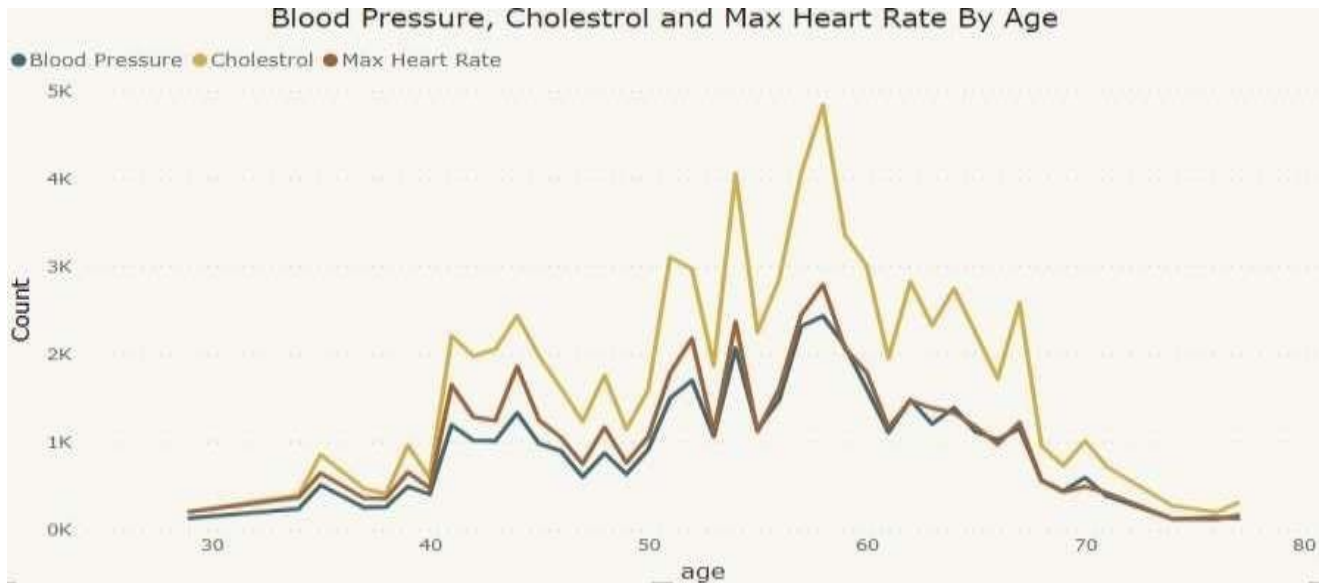


- Males are more prone to heart disease.
- Elderly Aged People are more prone to heart disease.

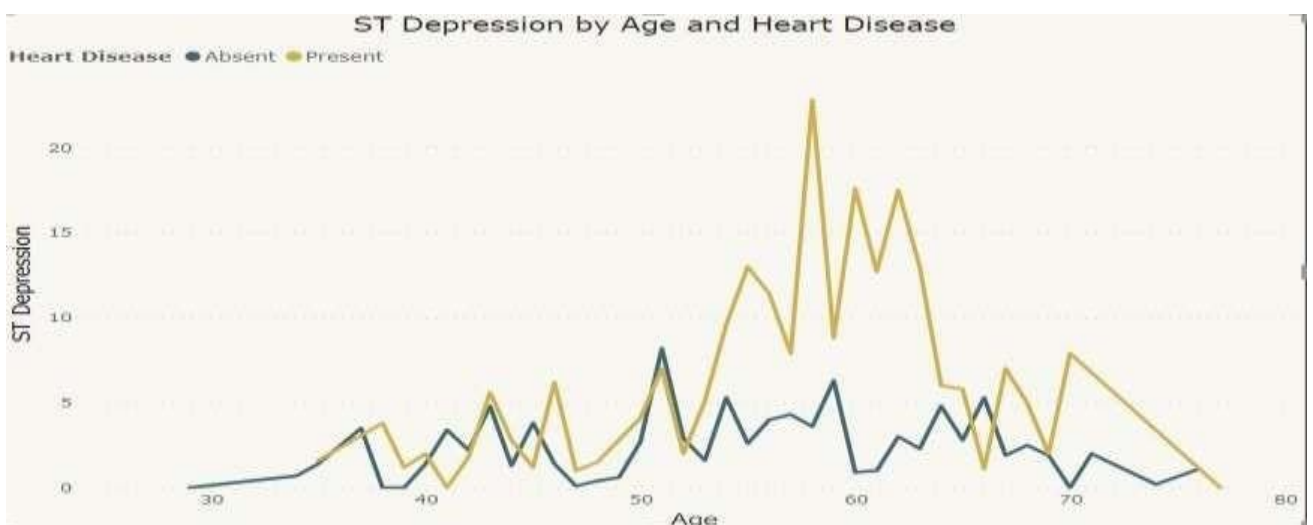


### 3. What symptoms people experience in heart disease

- It seems people having asymptomatic chest pain have a higher chance of heart disease.
- Asymptomatic Chest pain means neither causing nor exhibiting symptoms of heart disease.
- It seems in people high number of cholesterol level have heart disease.



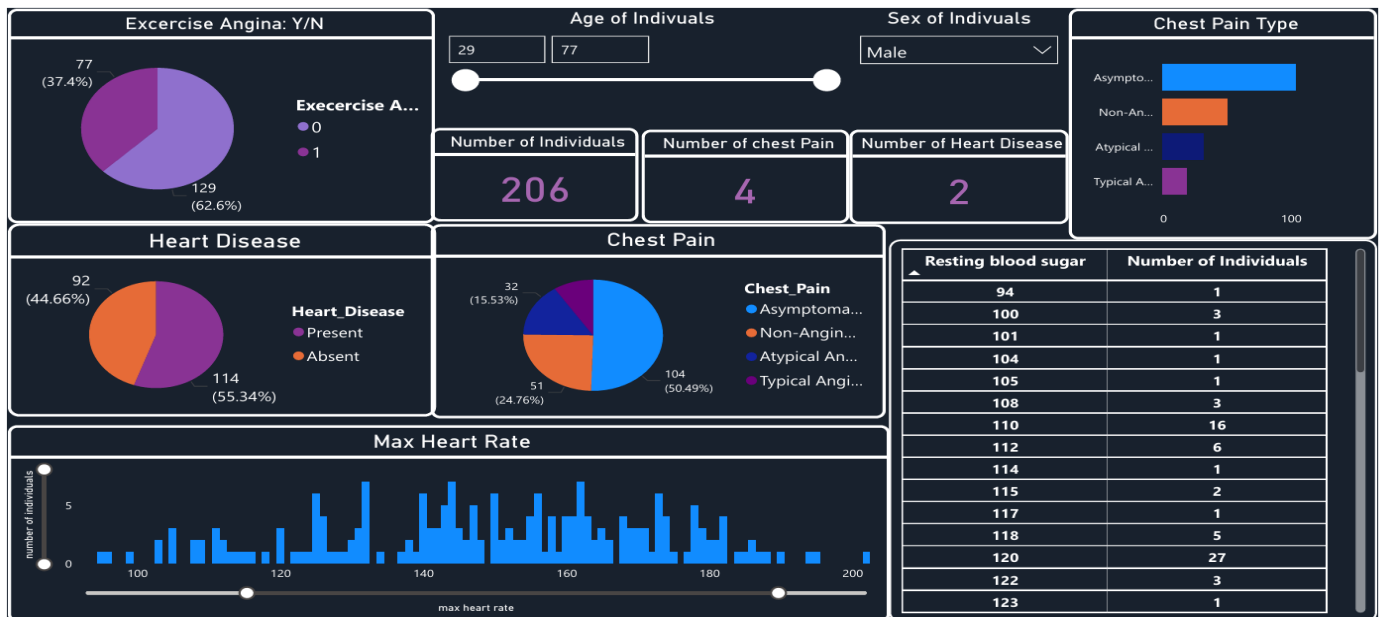
- Here we can observe that Blood Pressure increases between age of 50 to 60 and somehow continue the pattern till 70.
- Similarly, Cholesterol and maximum heart rate Increase in the age group of 50-60.



- We can observe from here that ST depression mostly increases between the age group of 30-40.
- ST depression refers to a finding on an electrocardiogram, wherein the trace in the ST segment is abnormally low below the baseline.

The patient with the below features have all turned out to have developed heart disease:

- age<54



- Max heart rate **>152 bpm**
- No. of vessels colored by flourosopy **=0**
- Thalassemia is **fixed**

The patient with the below features have 88% turned out to have developed heart disease:

- Age**>54**
- Peak exercise ST segment is **NOT FLAT**
- No. of vessels colored by flourosopy **=0**
- Thalassemia is **fixed**
- Total Patients with heart disease is 165 (54.6%) of total 303 subjects.
- Average Risk of developing heart disease is 83.39%.
- Average Resting BP for people with heart disease is 129.3 mmHg.
- Average Serum Cholesterol for people with heart disease is 242.33 mm/dl.
- Average age for people with heart disease is 52.5 years.
- Average max heart rate achieved for people with heart disease is 158.47 bpm.
- Average no. of major vessels affected for people with heart disease is 0.36.
- Average ST depression induced due to exercise for people with heart disease is 0.58.

