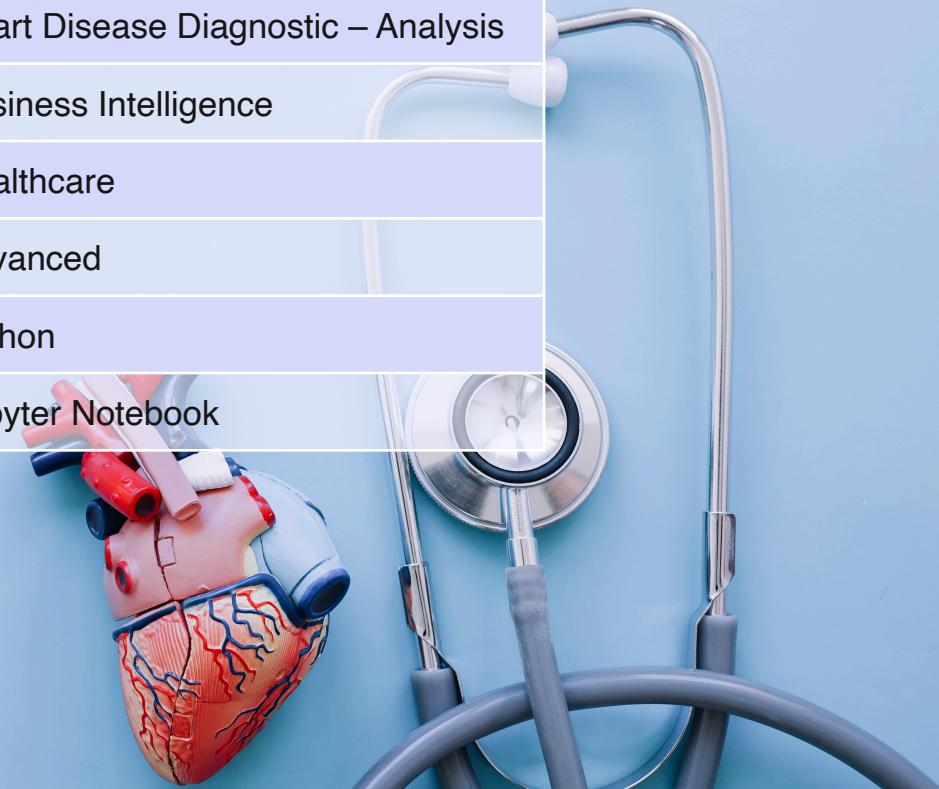

Heart Disease Diagnostic Analysis..

Tariq Ahmad



Project Details

Project Title	Heart Disease Diagnostic – Analysis
Technology	Business Intelligence
Domain	Healthcare
Project Difficulty level	Advanced
Programming Language Used	Python
Tools Used	Jupyter Notebook



Objective

The goal of this project is to analyze the heart disease occurrence, based on a combination of features that describes the heart disease.

Problem Statement

Health is real wealth in the pandemic time. we all realized the brute effects of covid-19 on all irrespective of any status. You are required to analyze this health and medical data for better future preparation.

A dataset is formed by taking into consideration some of the information of 1024 individual.

Architechture

Project is done with 4 steps



Data Collection

The Dataset provided by ineuron. Collected from their website in csv format.

01



Data Analysis

This steps is a combination of Exploratory data analysis, Statics and Label Encoding

02



Data Visualization

This Step made with Python Pandas and Data visualization with seabird and Matplotlib.

03



Conclusion

After intense analysis of data, we have made realistic conclusion

04

Dataset Information

There are 13 features in the Dataset

- age: The person's age in years
- sex: The person's sex (1=male, 0=female)
- cp: The chest pain experienced
- trestbps: Person's resting blood pressure
- chol: person's cholesterol measurement in mg/dl
- fbs: person's fasting blood sugar
- resrecg: Resting electrocardiographic measurement
- thalich: person's maximum heart rate achieved
- exang: Exercise induced angina
- oldpeak: ST depression included by exercise relative to rest
- slope: the slope of the peak exercise ST segment
- ca: The number of major vessels
- thal: A blood disorder called thalassemia
- target: Heart disease (0 = no, 1 = yes)

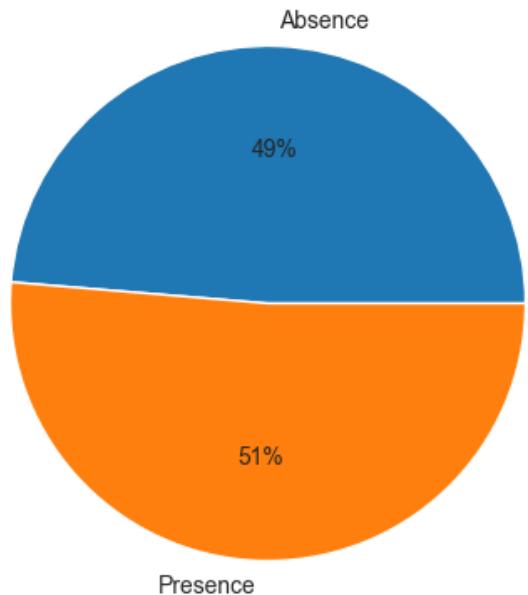
Key Performing Indicators

- ✓ Percentage of People Having Heart Disease
- ✓ Age distribution including gender
- ✓ Gender distribution based on heart disease
- ✓ Chest pain experienced by people suffering from heart disease
- ✓ Blood pressure, Cholesterol level and maximum heart rate of people according to their age and heart disease patients.
- ✓ ST Depression experienced by people according to their age and heart disease.



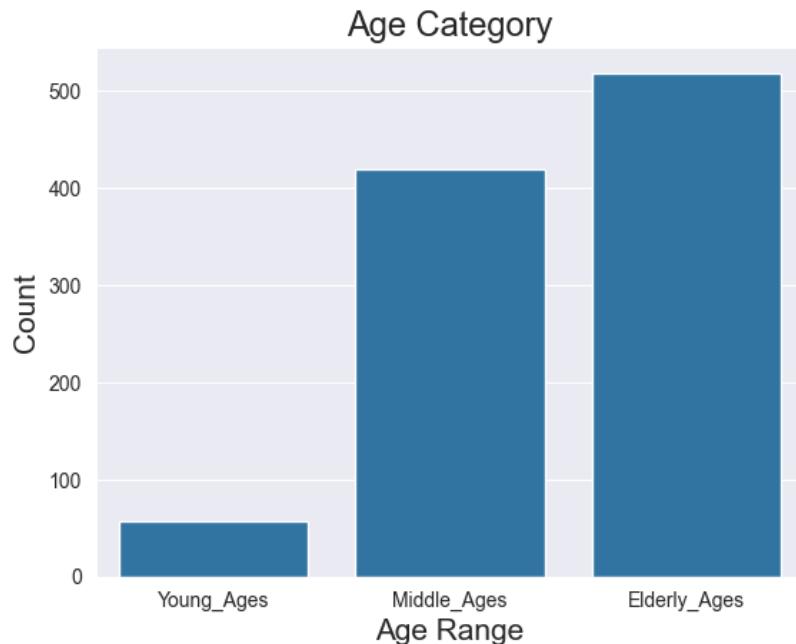
Insights

Heart Disease Population %

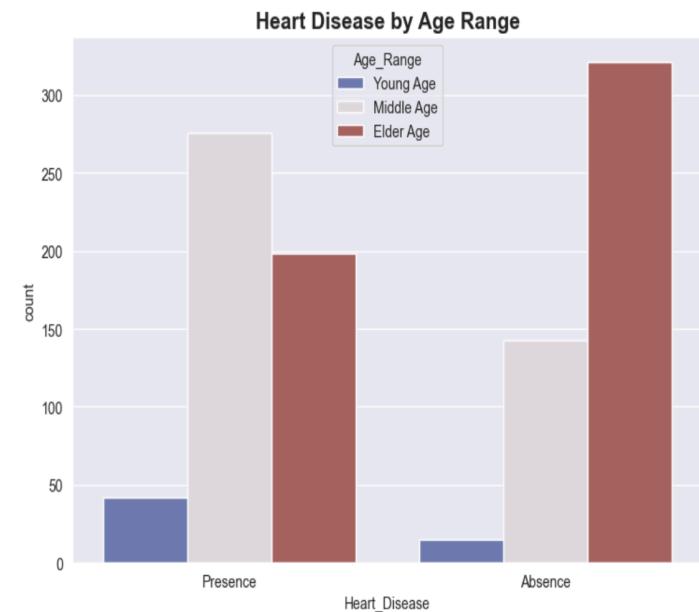


- Heart disease refers to any problem affecting the heart, such as coronary artery disease, arrhythmia, and heart failure.
- Among the heart disease population more people are suffering from heart disease.
- 51% people are suffering from heart disease among the data.
- 49% people are safe from heart disease.

Understanding Heart Disease with different Key Performing indicators

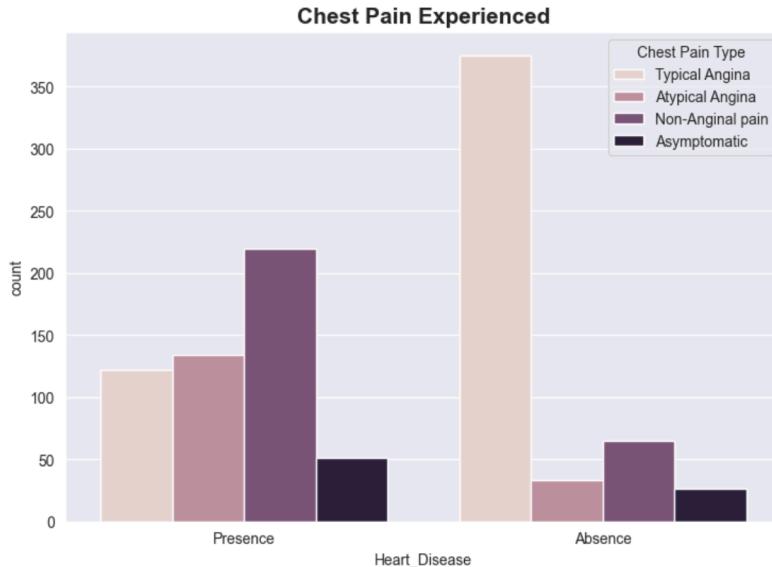


Age Categories of data were divided into young ages, Middle Ages, Elderly Ages.

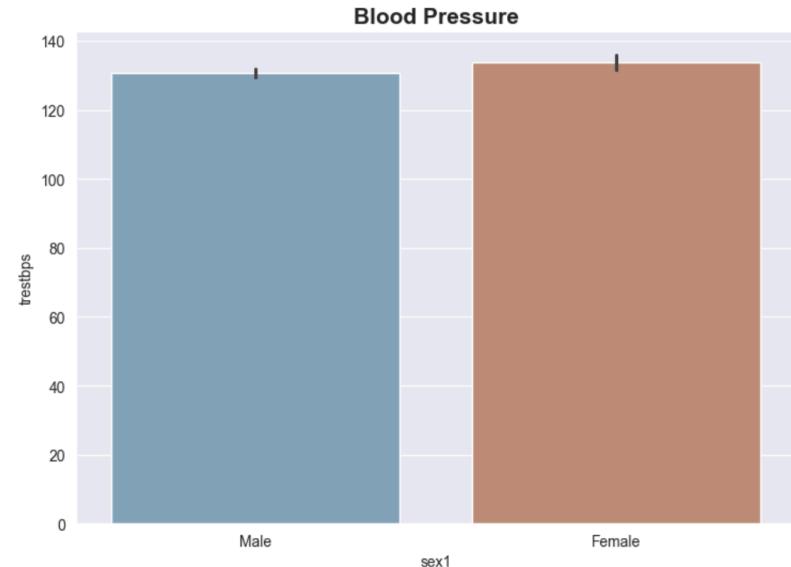


As Per Age category heart disease present more in Middle Age Group as compare to count and absent more in elder group.

Understanding Heart Disease with different Key Performing indicators

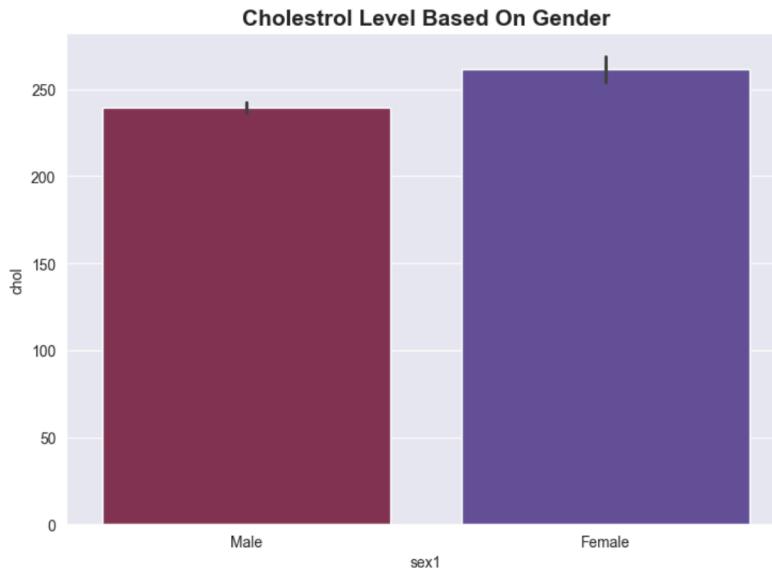


Chest pain experienced in above four categories which is Typical angina, atypical angina, non-Anginal pain and Asymptomatic as compare to counts.



Blood Pressure in Both genders similarly high but female having more count than male.

Understanding Heart Disease with different Key Performing indicators



Cholesterol level among the gender female having more number than men.



ST depression is more in the age range 55 to 70 among the all the all-age group.

Conclusions

- ✓ 51% People suffering from heart disease.
- ✓ Elderly Aged Man are more (50 to 60 Years) and Females are more in 55 to 66 years category.
- ✓ Elderly Aged people more prone to heart disease.
- ✓ As per count of age category number Middle age group people more suffer from heart disease.
- ✓ High number of cholesterol level in people having heart disease.
- ✓ Blood Pressure increases between age of 50 to 60 and somehow continue till 70.
- ✓ Cholesterol and maximum heart rate increasing in the age group of 50-60.
- ✓ ST depression mostly increases between the age group of 30-40.

Thank You