Sprint Delivery - ll Plan

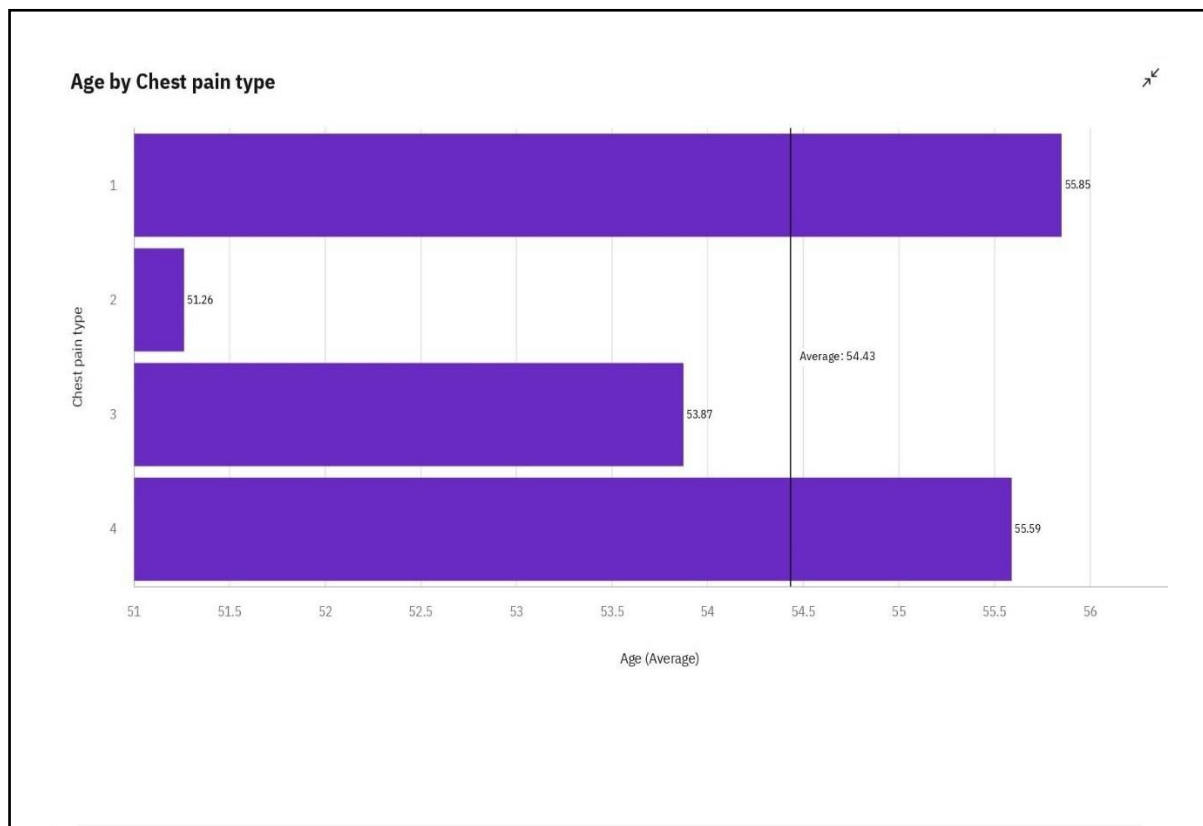| Date	02 November 2022
Team ID	PNT2022TMID25512
Project Name	Visualizing and Predicting Heart Diseases with an Interactive Dashboard

Exploration of Heart disease Prediction Dataset Using Cognos Analytics

USN-4,5:

- As a Data analyst, I create a predicted model by also preparing story card with using explored data.
- As a Data analyst, I will create different types of models in explored data to identify suit model with effectively and efficiently.

Age By Chest pain type:

- ✓ The most common value of **Chest pain type** is 4, occurring 129 times, which is 47.8 % of the total.
- ✓ Over all **chest pain types**, the average of **Age** is 54.43.
- ✓ The average values of **Age** range from 51.26, occurring when **Chest pain type** is 2, to 55.85, when **Chest pain type** is 1.
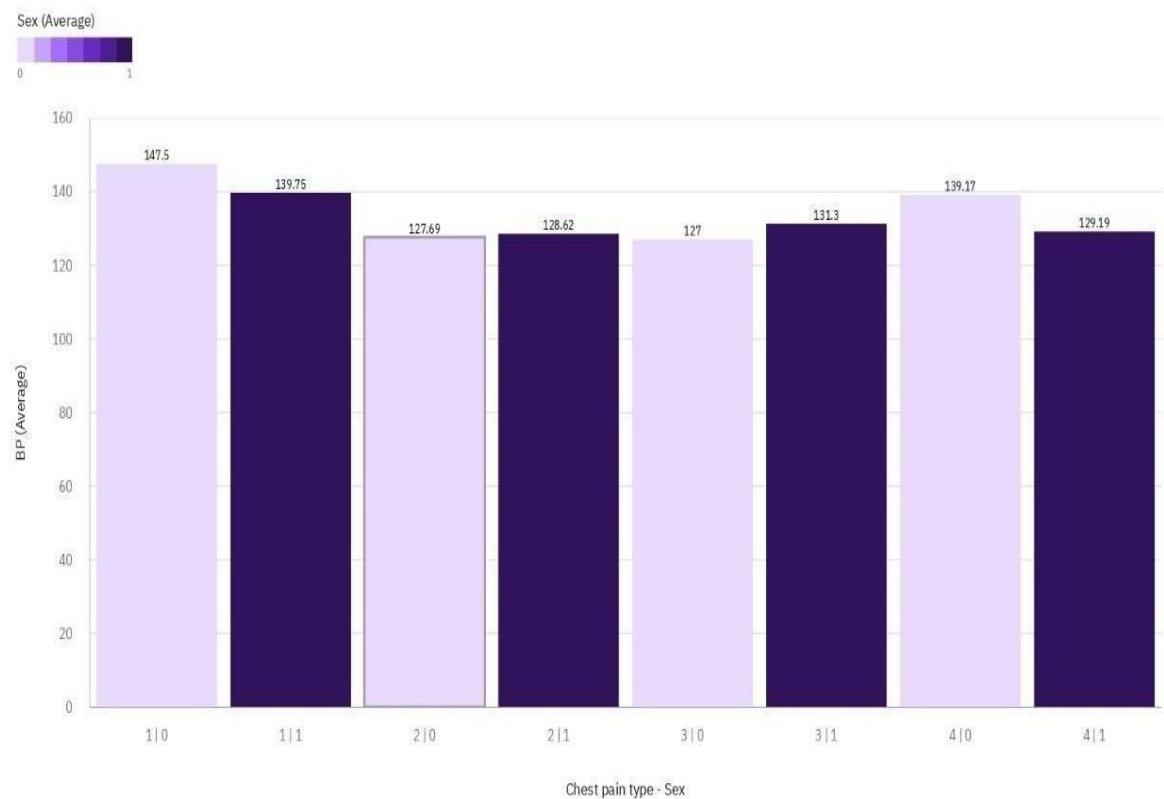
Age by Chest pain type

BP by Chest pain type and Sex coloured by Sex:

- The most common value of **Chest pain type - Sex** is 2|1, occurring 129 times, which is 47.8 % of the total.
- The total number of results for **Sex** is 270.
- Over all **chest pain type - sexes**, the average of **BP** is 0.6778.
- The average values of **BP** range from 0, occurring when **Chest pain type - Sex** is 1|0, to 1, when **Chest pain type - Sex** is 1|0.
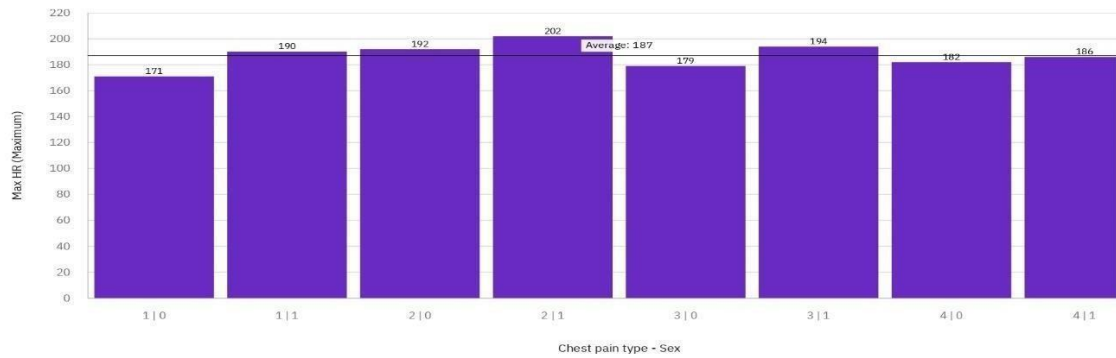
Tab 1

BP by Chest pain type and Sex colored by Sex

Sex (Average)

0   1

Max HR by Chest pain type and Sex:

- ❖ The totals number of results for **Max HR**, across all **chest pain type - sexes**, is 270.
- ❖ The most common value of **Chest pain type - Sex** is 2|1, occurring 129 times, which is 47.8 % of the total.
- ❖ The largest value of **Max HR** is 1, occurring when **Chest pain type - Sex** is 1|0.
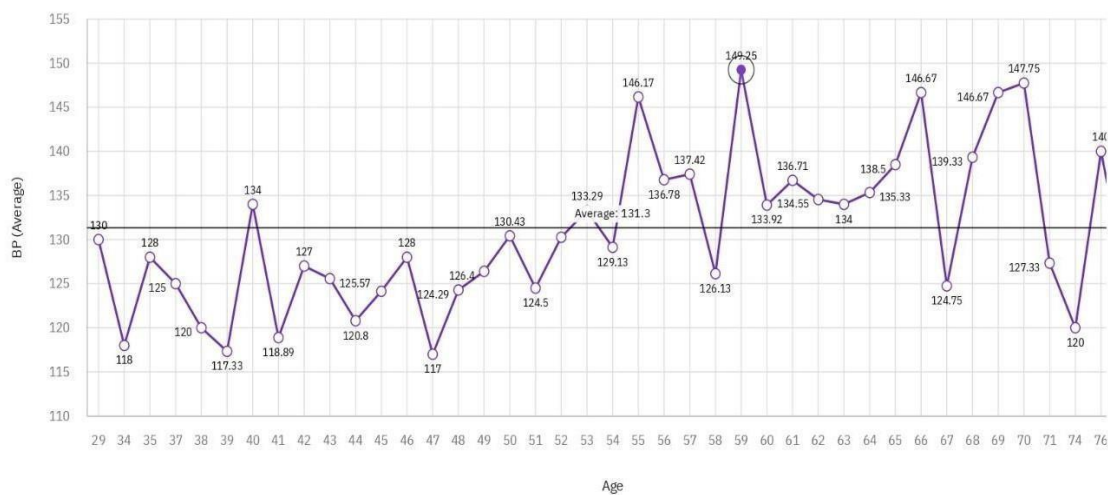
Max HR by Chest pain type and Sex
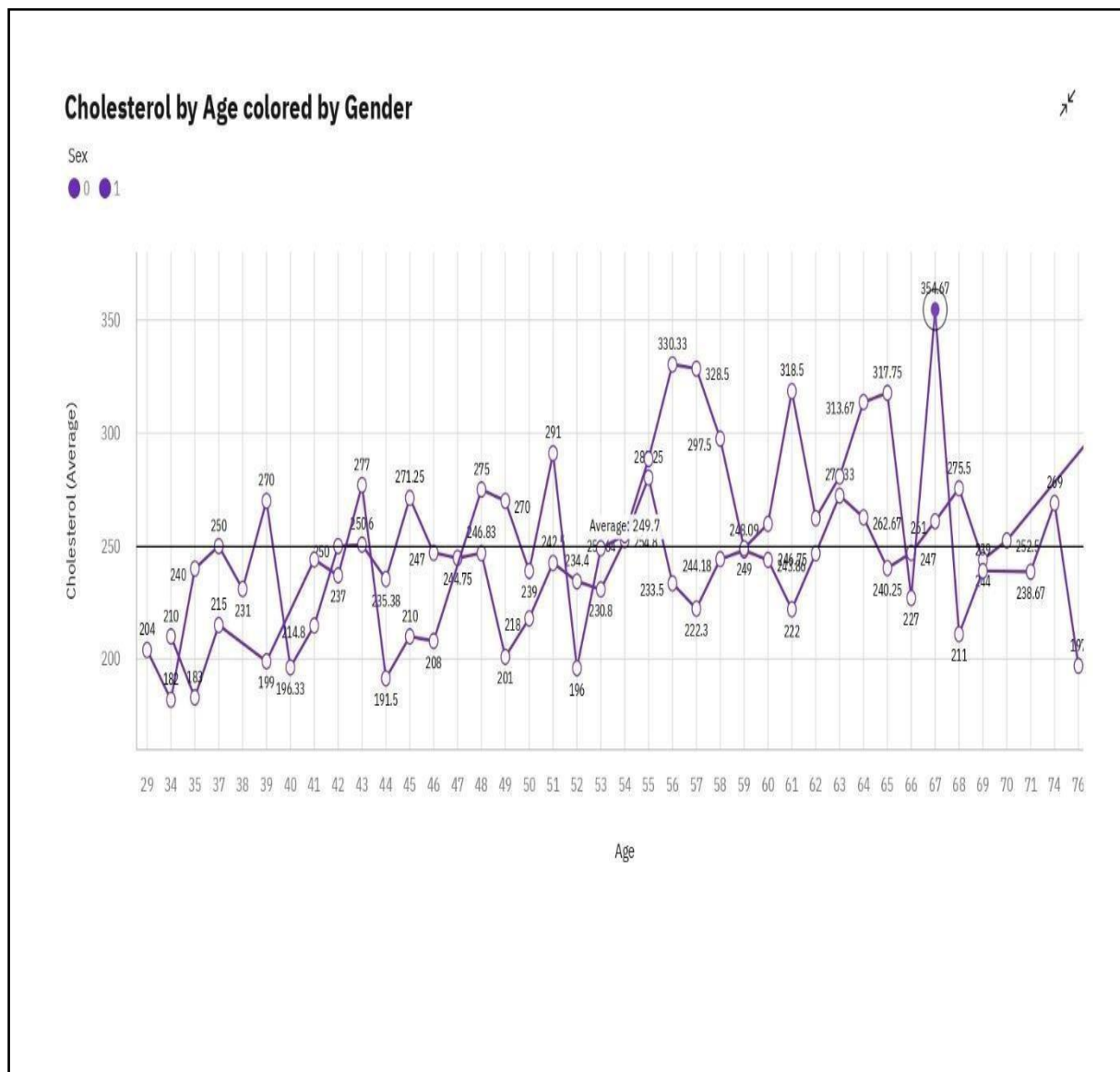
BP by Age:

- The most common values of **Age** are 54 (5.9 %) and 58 (5.6 %), together occurring 31 times, which is 11.5 % of the total.
- Over all **ages**, the average of **BP** is 131.3.
- The average values of **BP** range from 117, occurring when **Age** is 47, to 149.2, when **Age** is 59.
- **BP** is unusually high when **Age** is 59.

BP by Age

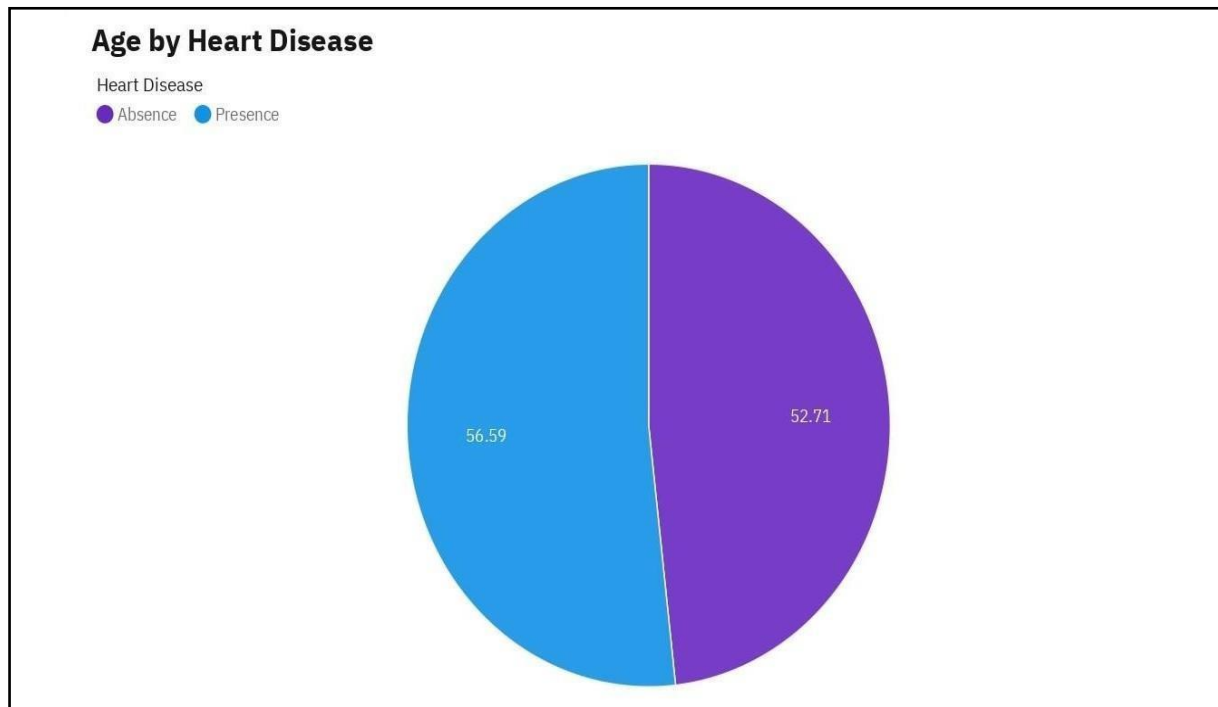## Cholesterol by Age colored by Gender:

✓ Over all **ages** and **sexes**, the average of **Cholesterol** is 249.7.

✓ The average values of **Cholesterol** range from 182 to 354.7.

✓ **Cholesterol** is unusually high when the combination of **Age** and **Sex** is 67 and 0.

✓ The most common values of **Age** are 54 (5.9 %) and 58 (5.6 %), together occurring 31 times, which is 11.5 % of the total.

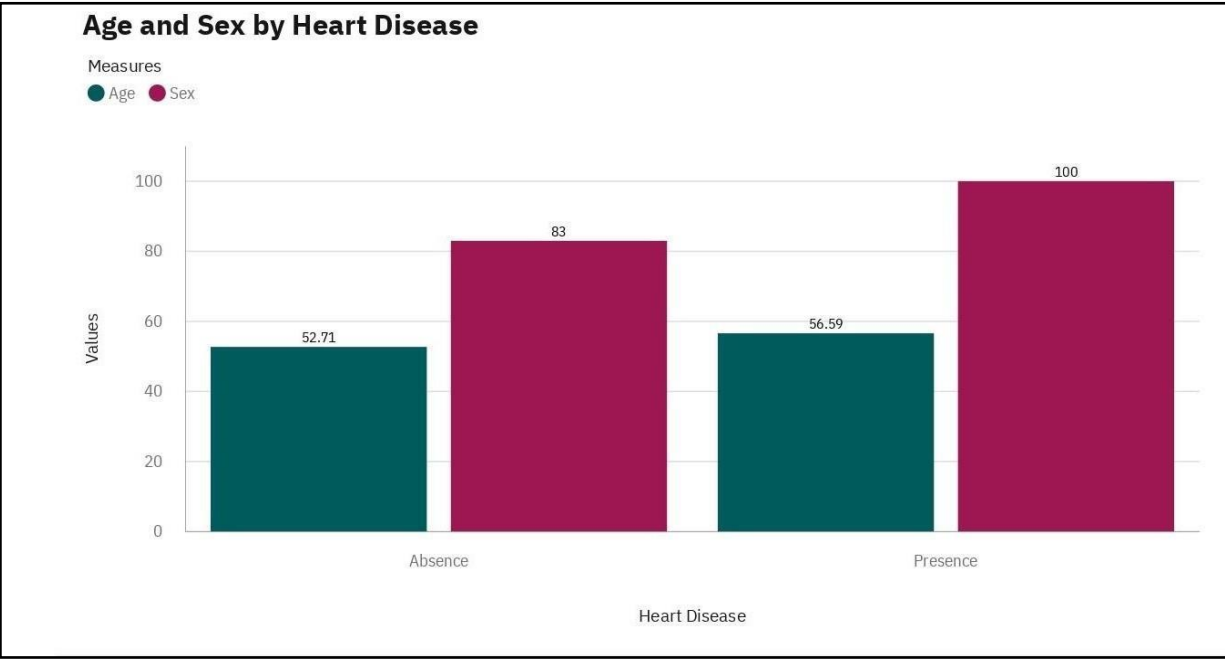✓ The most common value of **Sex** is 1, occurring 183 times, which is 67.8 % of the total.

Cholesterol by Age colored by Gender

Age By Heart Disease:

❖ The most common value of **heart disease** is Absence, occurring 150 times, which is 55.6 % of the total.

❖ Over all **heart diseases**, the average of **Age** is 54.43.

❖ The average values of **Age** range from 52.71, occurring when **heart disease** is Absence, to 56.59, when **heart disease** is Presence.

Age by Heart Disease

Heart Disease
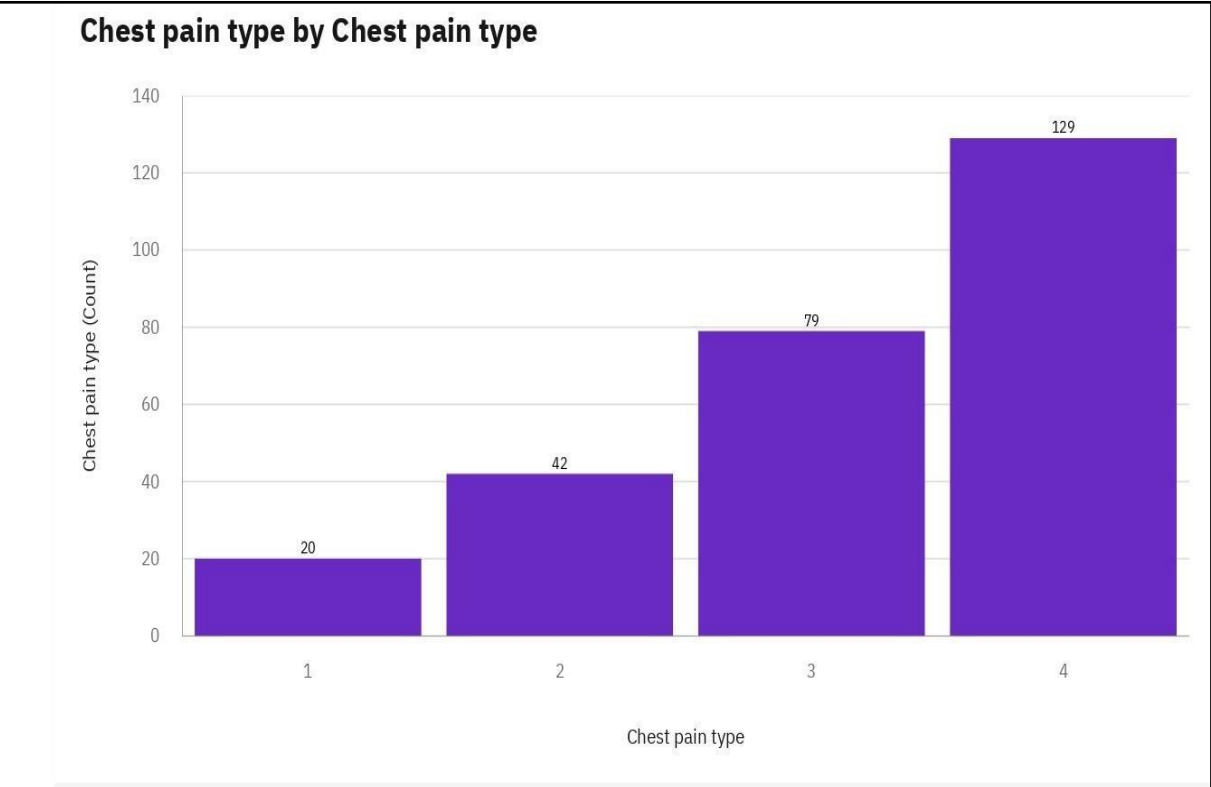● Absence ● Presence

56.59

52.71

Age and Sex by Heart Disease:

· The total number of results for **Sex**, across all **heart diseases**, is 270.

· Over all **heart diseases**, the average of **Sex** is 0.6778.

· The most common value of **Heart Disease** is Absence, occurring 150 times, which is 55.6 % of the total.

· The average values of **Age** range from 52.71, occurring when **heart disease** is Absence, to 56.59, when **heart disease** is Presence.

· **Sex** ranges from 83, when **heart disease** is Absence, to 100, when **heart disease** is Presence.

· The total number of results for **Age**, across all **heart diseases**, is 270.

Age and Sex by Heart Disease

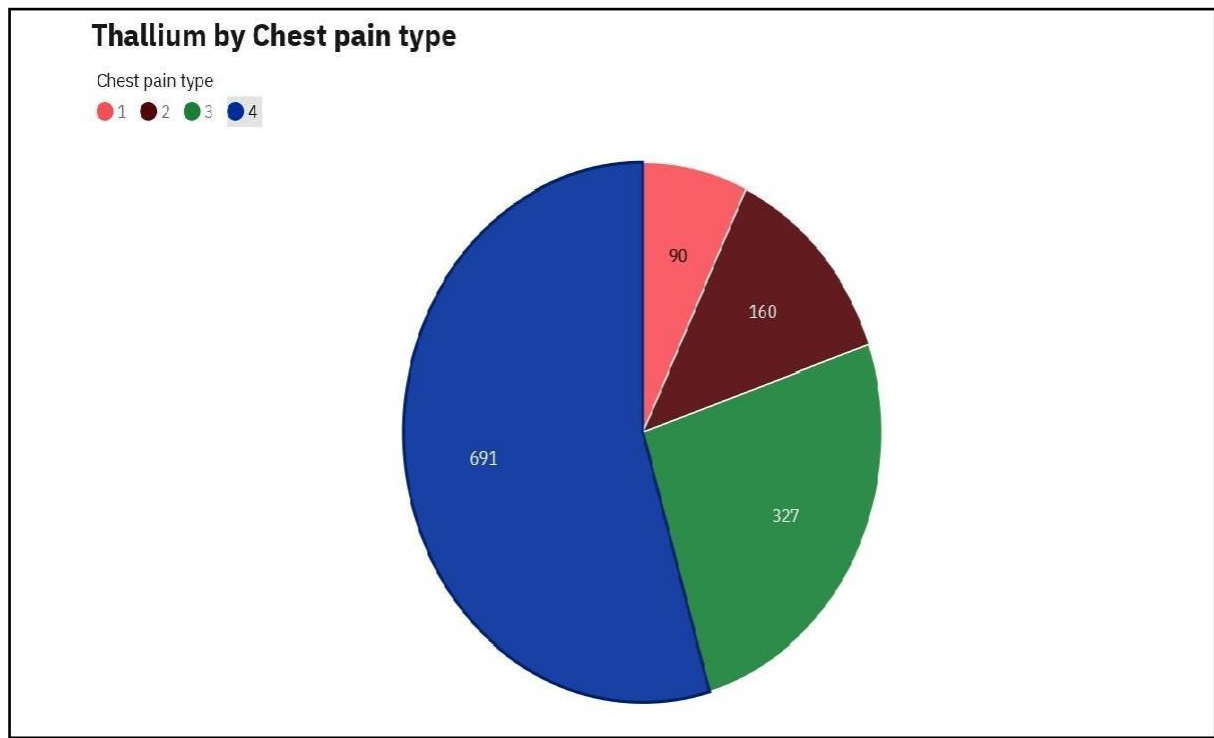## Chest pain type by Chest pain type:

✓ The total number of results for **Chest pain type**, across all **chest pain types**, is 270.
✓ The most common value of **Chest pain type** is 4, occurring 129 times, which is 47.8 % of the total.
✓ The count is unusually high when **Chest pain type** is 4.

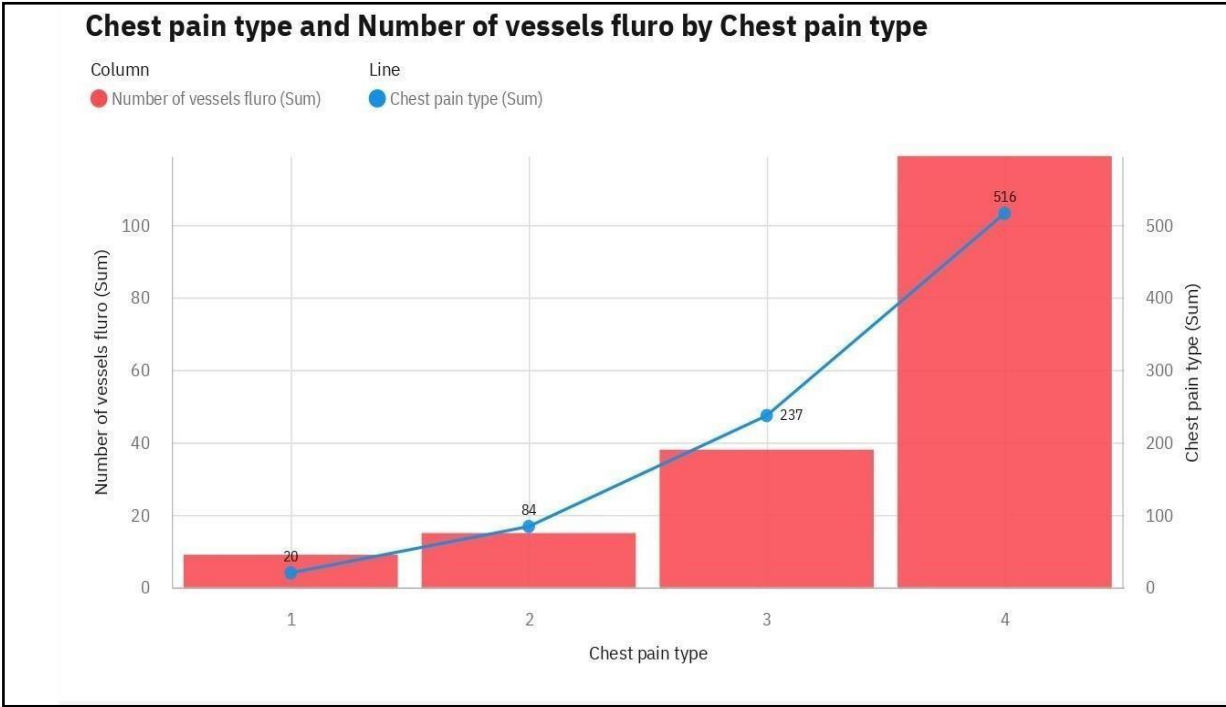**Chest pain type by Chest pain type**

Thallium by Chest pain type:

- Over all **chest pain types**, the sum of **Thallium** is nearly 1500.
- **Thallium** ranges from 90, when **Chest pain type** is 1, to 691, when **Chest pain type** is 4.
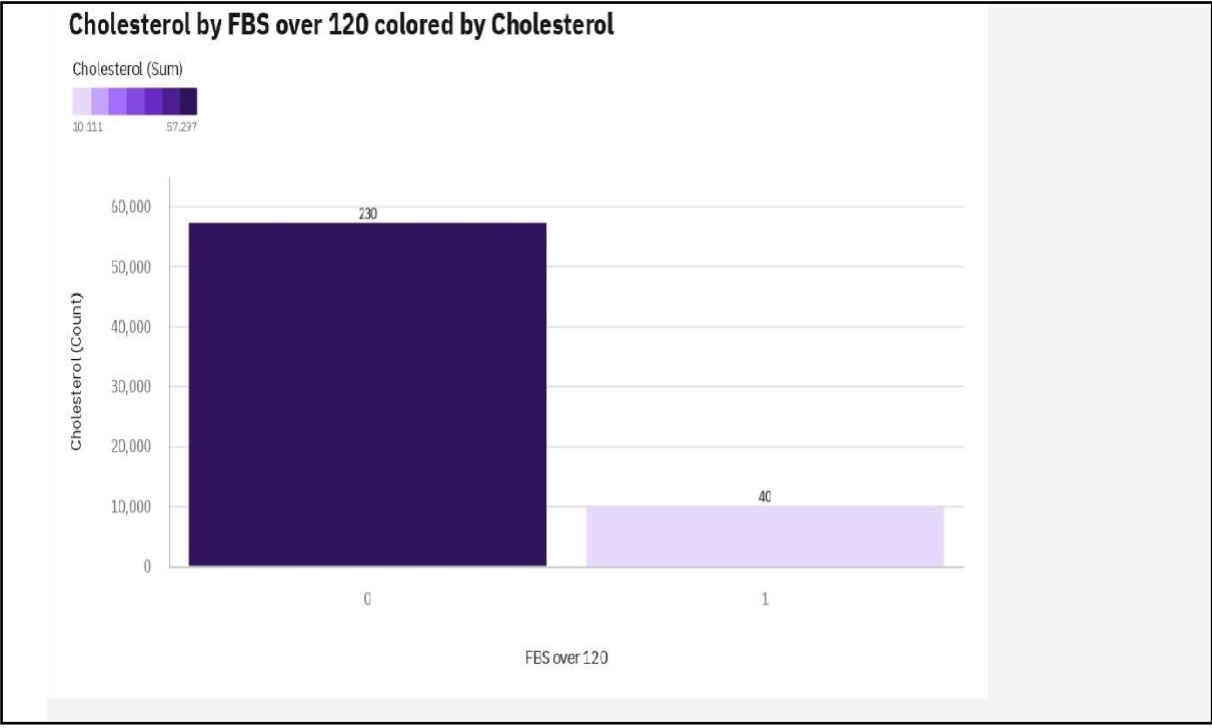- **Thallium** is unusually high when **Chest pain type** is 4.

Thallium by Chest pain type

Chest pain type
● 1 ● 2 ● 3 ● 4

90
160
327
691

Chest pain type and Number of vessels Fluro by Chest pain type:

- ➢ Over all **chest pain types**, the sum of **Number of vessels fluro** is 181.

- ➢ **Number of vessels fluro** ranges from 9, when **Chest pain type** is 1, to 119, when **Chest pain type** is 4.

- ➢ **Number of vessels fluro** is unusually high when **Chest pain type** is 4.

- ➢ Over all **chest pain types**, the sum of **Chest pain type** is 857.

- ➢ **Chest pain type** ranges from 20, when **Chest pain type** is 1, to 516, when **Chest pain type** is 4.

- ➢ **Chest pain type** is unusually high when **Chest pain type** is 4.

Chest pain type and Number of vessels fluro by Chest pain type

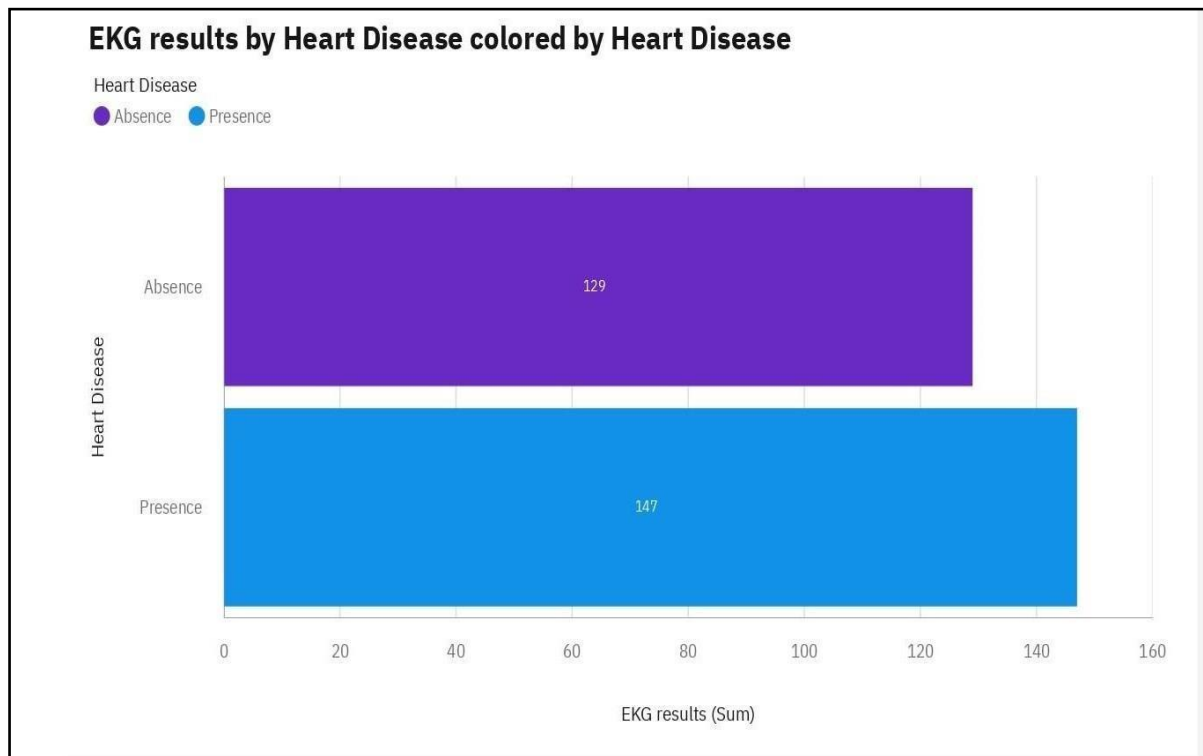# Cholesterol by FBS over 120 coloured by Cholesterol:

✓ The total number of results for **Cholesterol** is 270.
✓ The most common value of **FBS over 120** is 0, occurring 230 times, which is 85.2 % of the total.
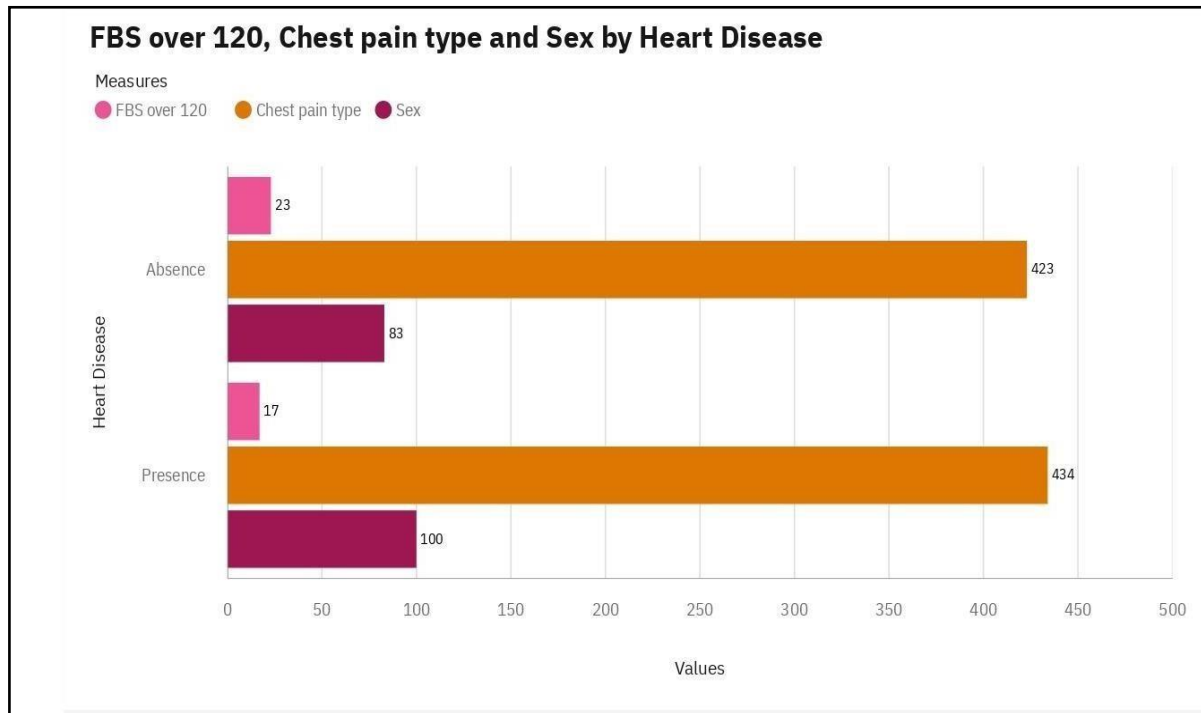
EKG results by heart disease colored by heart disease:

- For **EKG results**, the most significant value of **heart disease** is Presence, whose respective **EKG results** values add up to 147, or 53.3 % of the total.
- Over all **heart diseases** and **heart diseases**, the sum of **EKG results** is 276.
- The summed values of **EKG results** range from 129 to 147.

FBS over 120, Chest pain type and Sex by Heart Disease:

- ✓ **FBS over 120** ranges from 17, when **heart disease** is Presence, to 23, when **heart disease** is Absence.
- ✓ **Chest pain type** ranges from 423, when **heart disease** is Absence, to 434, when **heart disease** is Presence.
- ✓ **Sex** ranges from 83, when **heart disease** is Absence, to 100, when **heart disease** is Presence.
- ✓ The total number of results for **Sex**, across all **heart diseases**, is 270.
- ✓ Over all **heart diseases**, the average of **Sex** is 0.6778.
- ✓ The most common value of **heart disease** is Absence, occurring 150 times, which is 55.6 % of the total.
- ✓ The total number of results for **Chest pain type**, across all **heart diseases**, is 270.
- ✓ Over all **heart diseases**, the average of **Chest pain type** is 3.174.
- ✓ The total number of results for **FBS over 120**, across all **heart diseases**, is 270.
- ✓ Over all **heart diseases**, the average of **FBS over 120** is 0.1481.
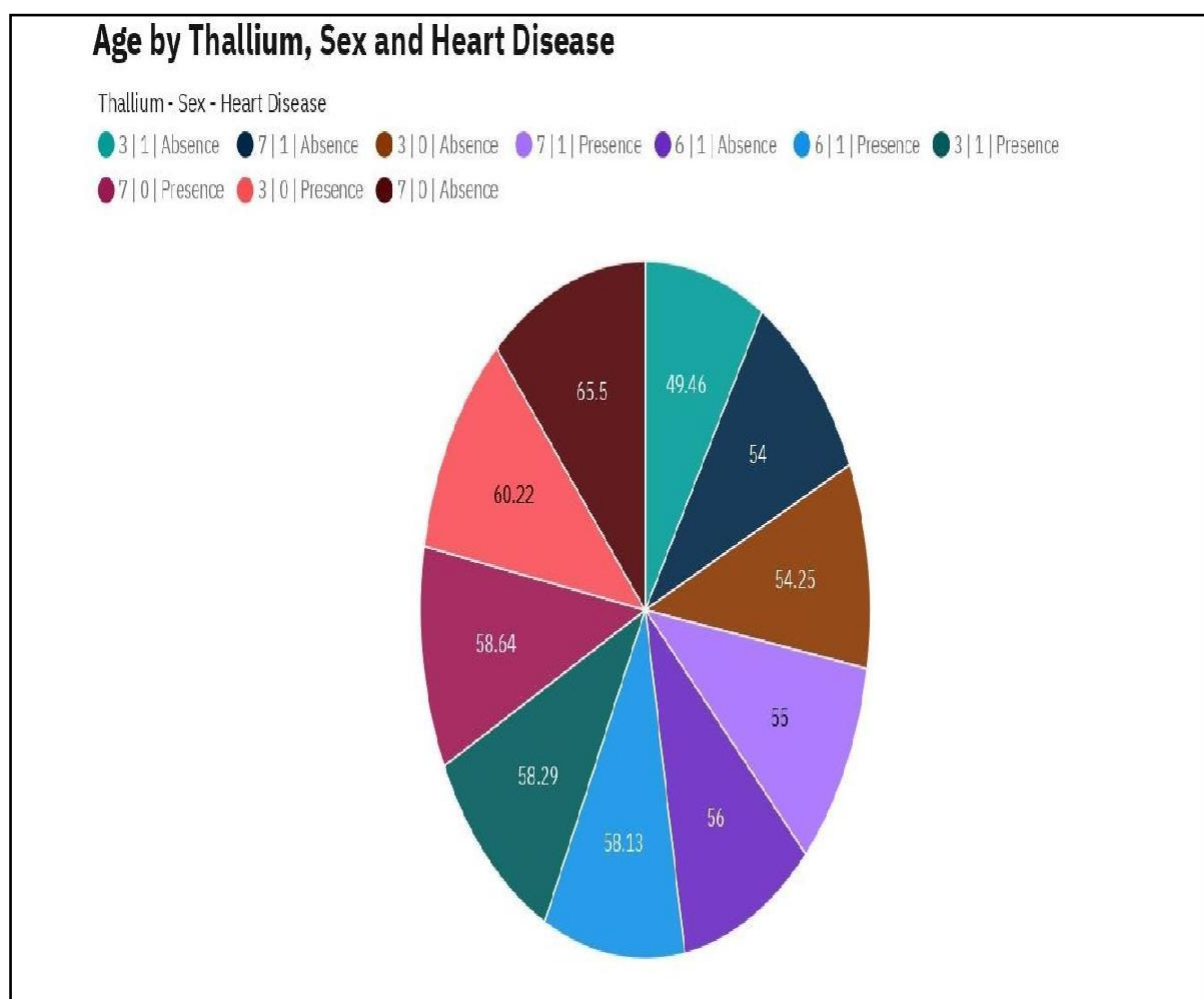
FBS over 120, Chest pain type and Sex by Heart Disease

Age and Max HR for Sex:

- ➢ The total number of results for **Age**, across all **sexes**, is 2.
- ➢ The total number of results for **Max HR**, across all **sexes**, is 2.
- ➢ The average values of **Age** range from 53.84, occurring when **Sex** is 1, to 55.68, when **Sex** is 0.
- ➢ The largest value of **Max HR** is 202, occurring when **Sex** is 1.

Age and Max HR for Sex

	Age	Max HR
0	55.68	192
1	53.84	202
Summary	54.43	202

Age by Thallium, Sex and Heart Disease:

- ❖ Over all **thallium - sex - heart diseases**, the average of **Age** is 0.3222.

- ❖ The average values of **Age** range from 0, occurring when **Thallium - Sex - heart disease** is 3|1|Absence, to 1, when **Thallium - Sex - heart disease** is 3|1|Absence.

- ❖ **Age** is unusually low when **Thallium - Sex - heart disease** is 3|1|Absence.

- ❖ The most common values of **Thallium - Sex - heart disease** is 3|1|Absence (56.3 %) and 7|1|Absence (38.5 %), together occurring 256 times, which is 94.8 % of the total.

Age by Thallium, Sex and Heart Disease

Thallium - Sex - Heart Disease

● 3 | 1 | Absence ● 7 | 1 | Absence ● 3 | 0 | Absence ● 7 | 1 | Presence ● 6 | 1 | Absence ● 6 | 1 | Presence ● 3 | 1 | Presence

● 7 | 0 | Presence ● 3 | 0 | Presence ● 7 | 0 | Absence

Cholesterol by Heart Disease and Chest pain type colored by Sex:

✓   The most common value of **heart disease - Chest pain type** is Absence|1, occurring 150 times, which is 55.6 % of the total.

✓   The most common value of **Sex** is Sex_CAT3, occurring 129 times, which is 47.8 % of the total.

✓   The most common value of **Sex** is 1, occurring 42 times, which is 67.7 % of the total.

✓   The total number of results for **Cholesterol**, across all **heart disease - chest pain types**, is 270.