Performance Testing

Dashboard & User Story Metrics

Date	08 November 2022
Team ID	PNT2022TMID28916
Project Name	Project - Visualizing and Predicting Heart Diseases with an Interactive Dash Board
Maximum Marks	10 Marks

Dashboard design:

A dashboard is a visual representation of the most relevant information required to achieve one or more goals, condensed and presented on a single screen so that the information can be watched at a glance.
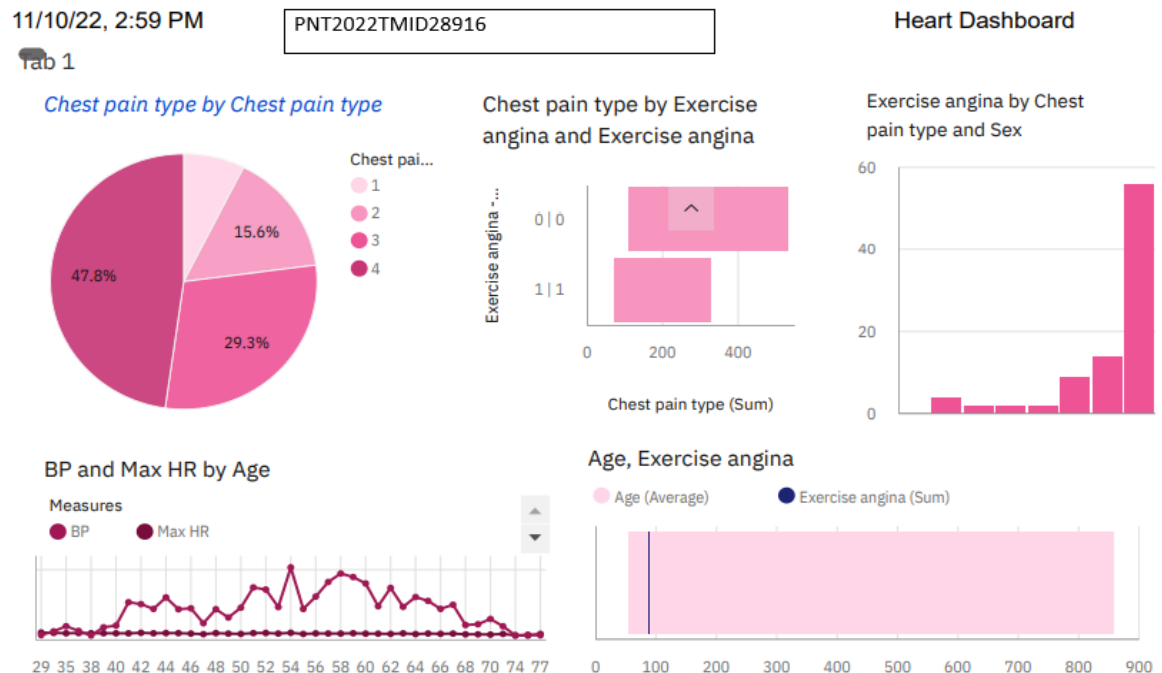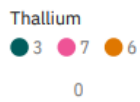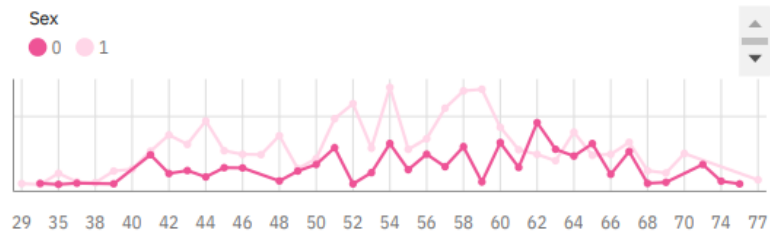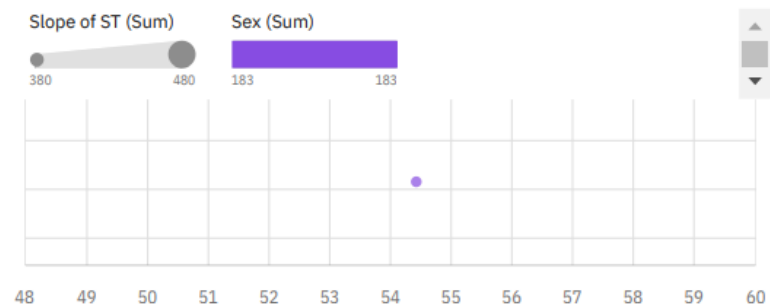
PNT2022TMID28916

Tab 2

Age by Thallium

Thallium
● 3 ● 7 ● 6

0   1

Cholesterol by Age colored by Sex

Sex
● 0 ● 1

29 35 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66 68 70 74 77

Age by Chest pain type colored by Sex and sized by Slope of ST

Slope of ST (Sum)
380   480

Sex (Sum)
183   183

48   49   50   51   52   53   54   55   56   57   58   59   60

Data Responsiveness:

Cholesterol by Sex with points for Age

Age (Average)
29   50

Sex (Sum) / Cholesterol (Sum)

The above data is to determine cholesterol based on gender and ages between 27 to 50.
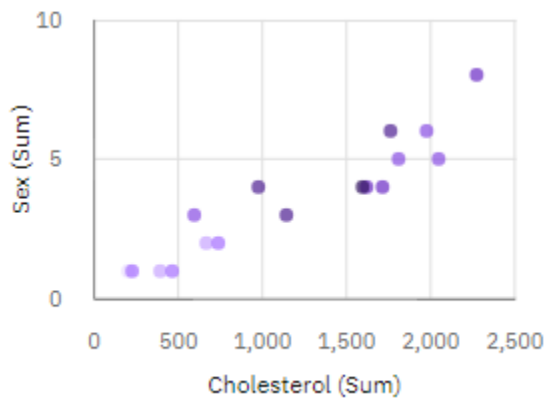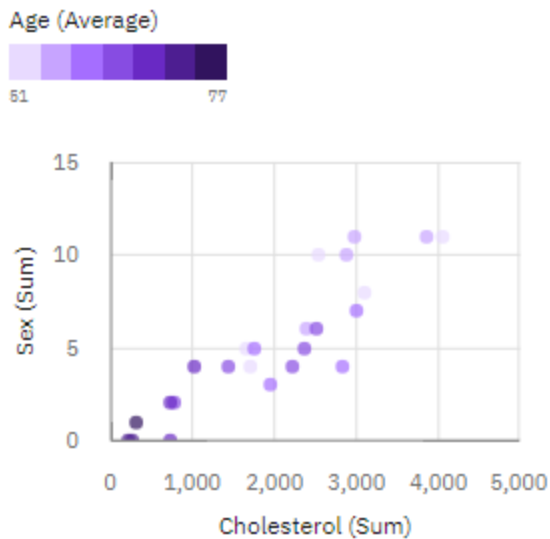
PNT2022TMID28916

Cholesterol by Sex with points for Age

Age (Average)

51   77

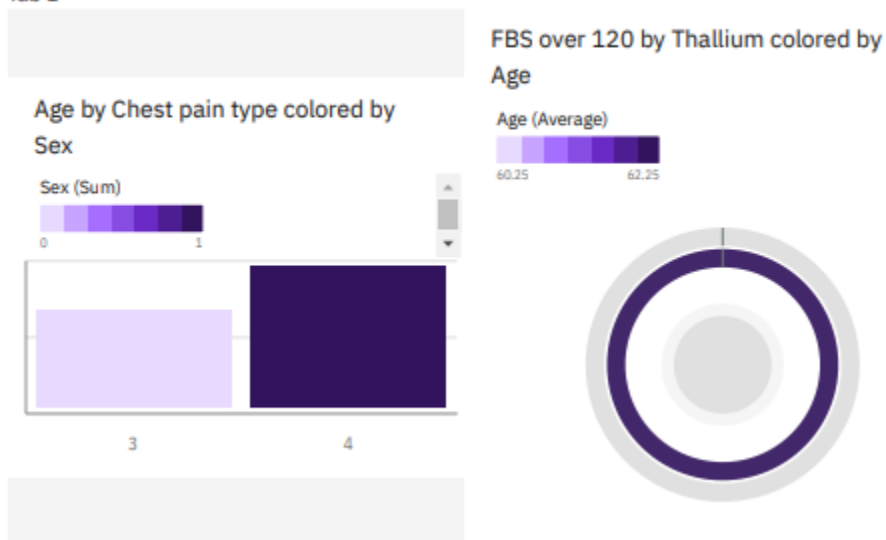The above data is to determine cholesterol based on gender and ages between 50 to 77.

Here you can clearly see the change in the graph which is due to the filters and the responsiveness of the data.

Amount Data to Rendered:

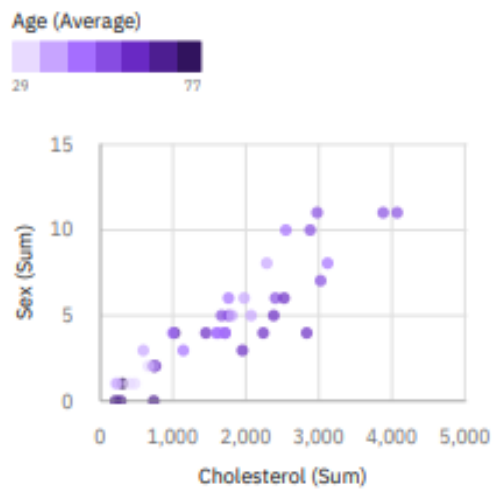11/11/22, 10:18 PM   New dashboard

Tab 1

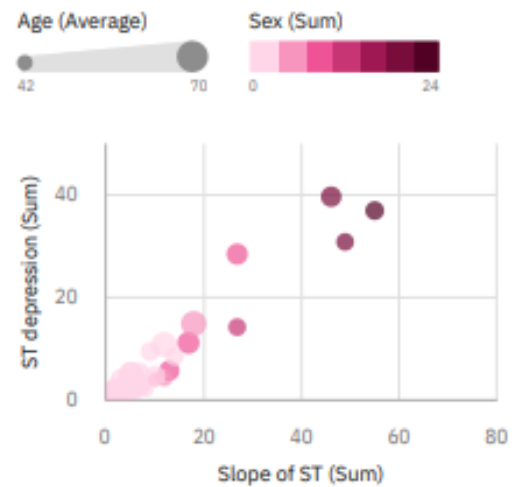FBS over 120 by Thallium colored by Age

Age by Chest pain type colored by Sex

Age (Average)

Sex (Sum)

60.25   62.25

0   1

Tab 2

Cholesterol by Sex with points for Age

Age (Average)

29 — 77

Sex (Sum) vs Cholesterol (Sum)

Slope of ST and ST depression with Age and Sex for BP

Age (Average) 42 — 70

Sex (Sum) 0 — 24

ST depression (Sum) vs Slope of ST (Sum)

Tab 3

Exercise angina and Thallium with Age and Number of vessels fluro for FBS over 120

Age (Average) 56 — 63

Number of vessel... 1 — 35

Thallium

3   6   7

Exercise angina 0 / 1

Chest pain type

Chest pain type 3.26 — 3.93

Nodes

Top 5

Absence   < 57 / ≥ 57
Presence   < 1 / ≥ 1

PNT2022TMID28916
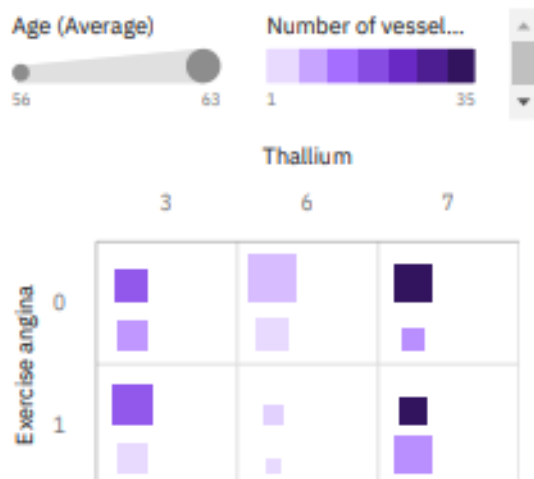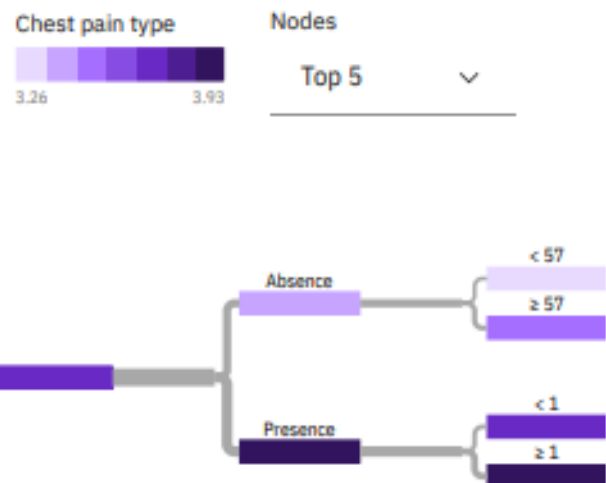
Tab 4

Age hierarchy colored by BP and sized by Chest pain type

Chest pain type (C...   BP (Sum)

1   16   120   2,066
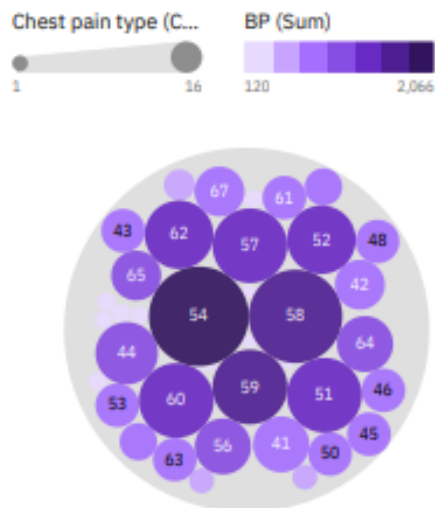
Age by BP and Cholesterol

BP - Cholesterol

94 | 199
108 | 243
110 | 254
118 | 182
120 | 226
120 | 295
125 | 245
128 | 259
130 | 250
132 | 184
136 | 196
140 | 197
140 | 298
145 | 282
150 | 270
160 | 269
192 | 283

0   20   40   60   80

Age (Average)
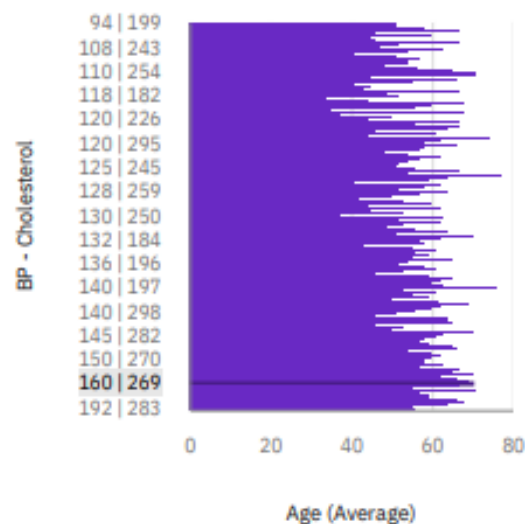
Utilization of Data Filters:

Data filtering is the process of selecting a smaller subset of your data set for display or analysis. Filtering is usually just temporary; the entire data set is maintained, but only a portion of it is used for the calculation.

As the name implies, data filtering can assist you in removing unnecessary data.

Filtering can be used to assess how well statistical models and algorithms perform. The fundamental concept is to divide the sample into two or more groups, carry out the analysis separately on each group, and then compare the outcomes. Instead of employing a rule that is based on the data, this type of filtering would choose cases at random from the data. This process—often referred to as training, testing, and validating—ensures a reliable comparison.

PNT2022TMID28916

When filtering this data,

1. We can establish a rule for the required observations.

2. We can choose the observations that adhere to the rule.

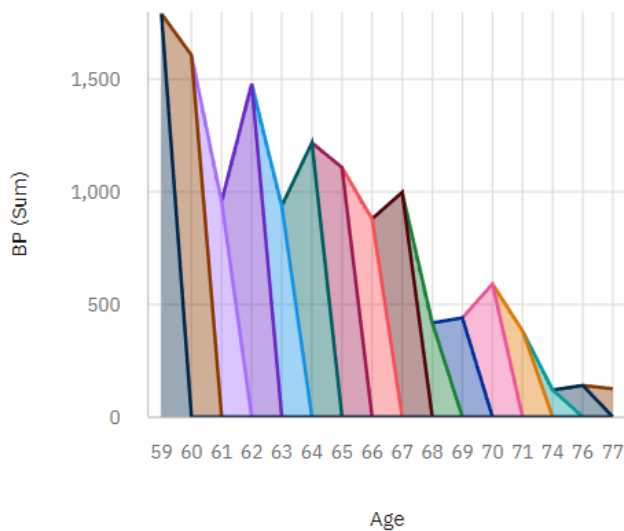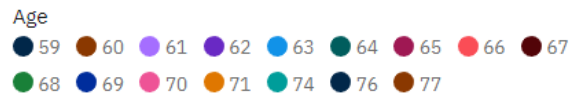3. We can use only the data from those chosen observations to do the analysis.
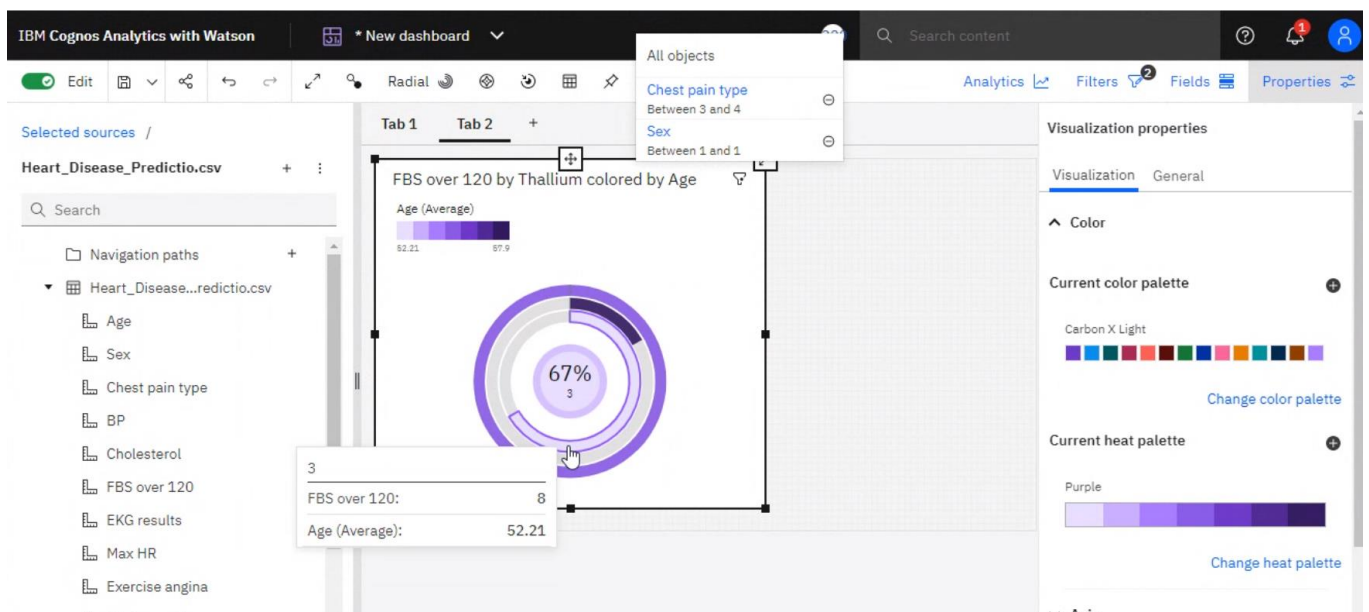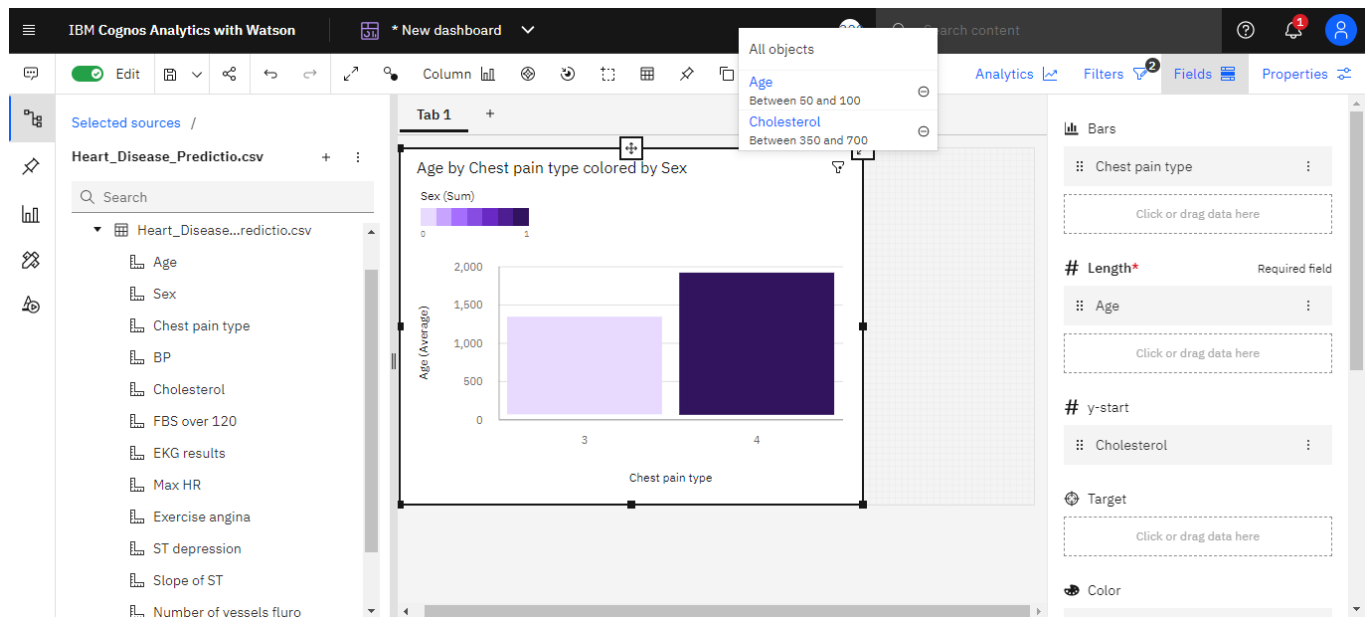
Calculation Efficiency:

There are various kinds of calculations made in the database as part of the query to the underlying data source. The performance of basic and aggregate calculations can generally be enhanced by a variety of database tuning strategies. Efficiency helps in defining the accuracy od a data. By visualizing a same set of data under multiple visualizations, the efficiency of the result can be determined.

Here we have taken the two data values, that is Age and BP. Four varieties of graphs are projected for' BP by Age coloured by age'. It helps in visualizing and determining the differences in the results of various visual methods.

BP by Age colored by Age
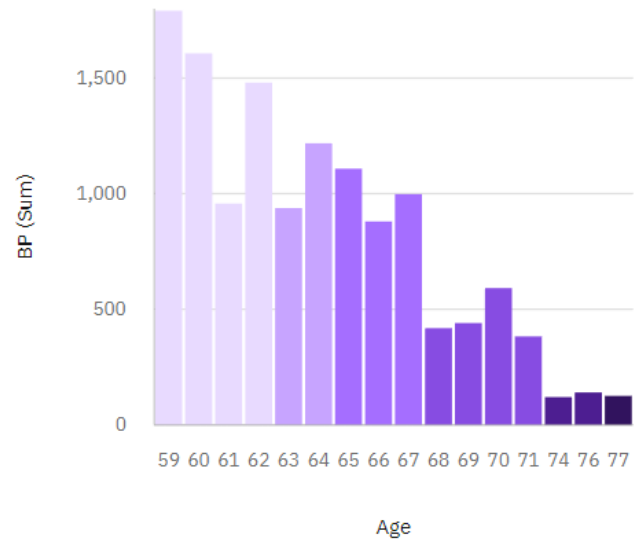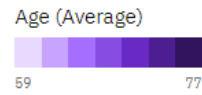
Effective User Story:

USER STORY:

As an aging individual, I want an application so that I could predict my own cardiac health.

Let's break this down one step further;
As the user is an aging individual, we are building a heart disease predicting application which enables the user to predict their cardiac health immediately within a few seconds. The app has the user login and signup for the authentication of information, and it uses the Logistic Regression algorithm to predict the result.

We have visualized the user's query for their requirement only with respect to the Age and Cholesterol of the user. The prediction gives a result if the disease could be present or not.
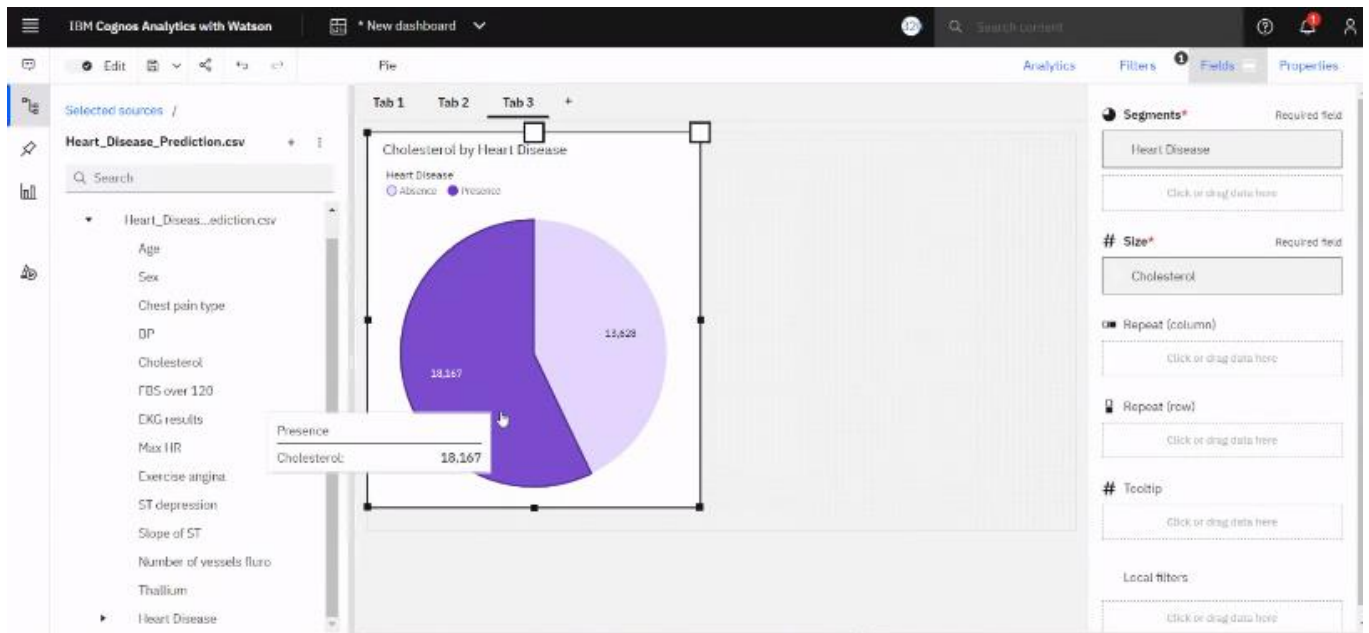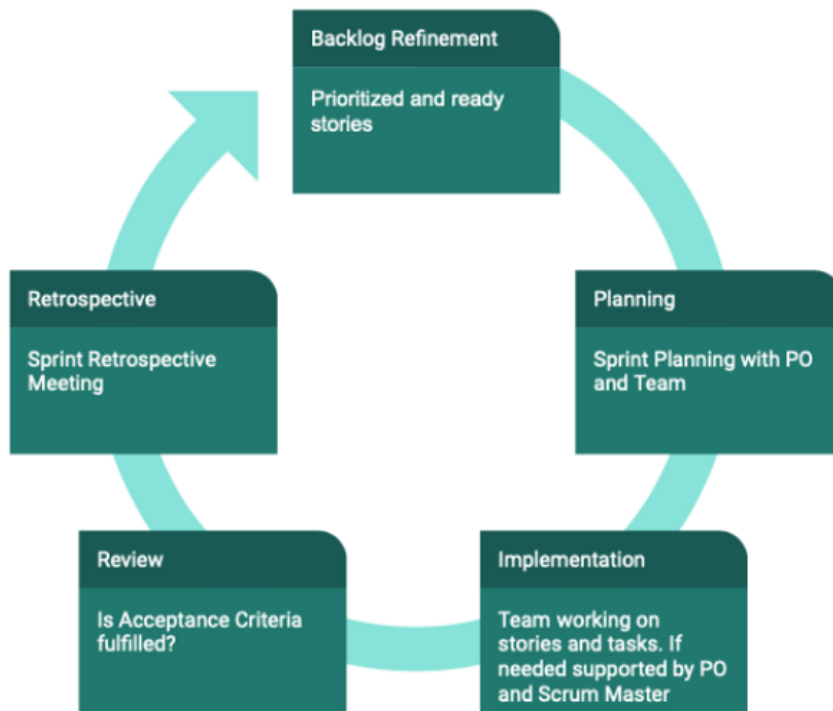
PNT2022TMID28916

Done By:

- Srishti R

- Jenefa Regina Mary J

- Jessica Tiffany D

- Haini M

Team ID: PNT2022TMID28916