

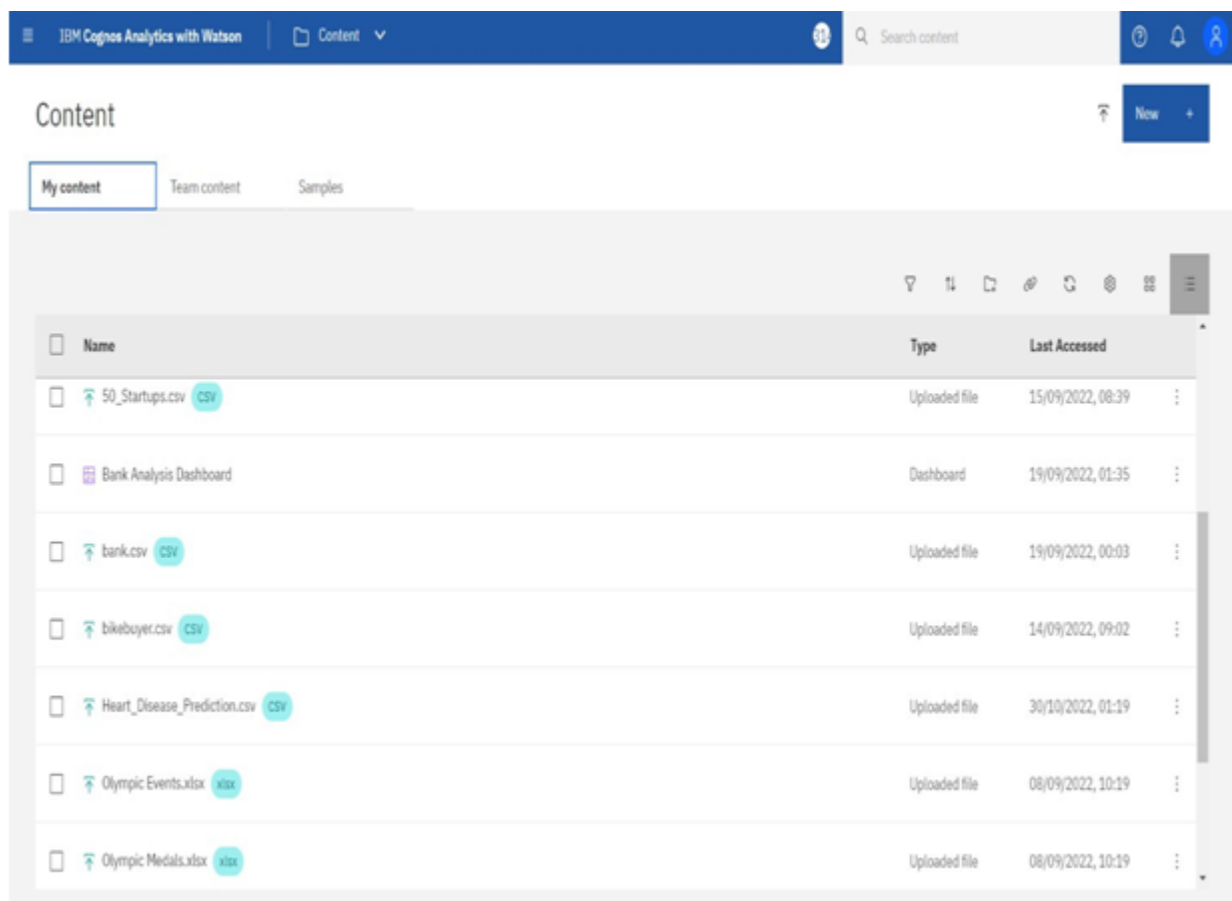
Sprint Delivery Plan

Date	28 October 2022
Team ID	PNT2022TMID19718
Project Name	Visualizing and Predicting Heart Diseases with an Interactive Dashboard

Uploading Heart disease Prediction Dataset Using Cognos Analysis:

USN-1:

- As a user, I can gather the details of the patients and storing the data set.
- Uploading the dataset of heart_disease_prediction.csv file to IBM Cognos Analytics



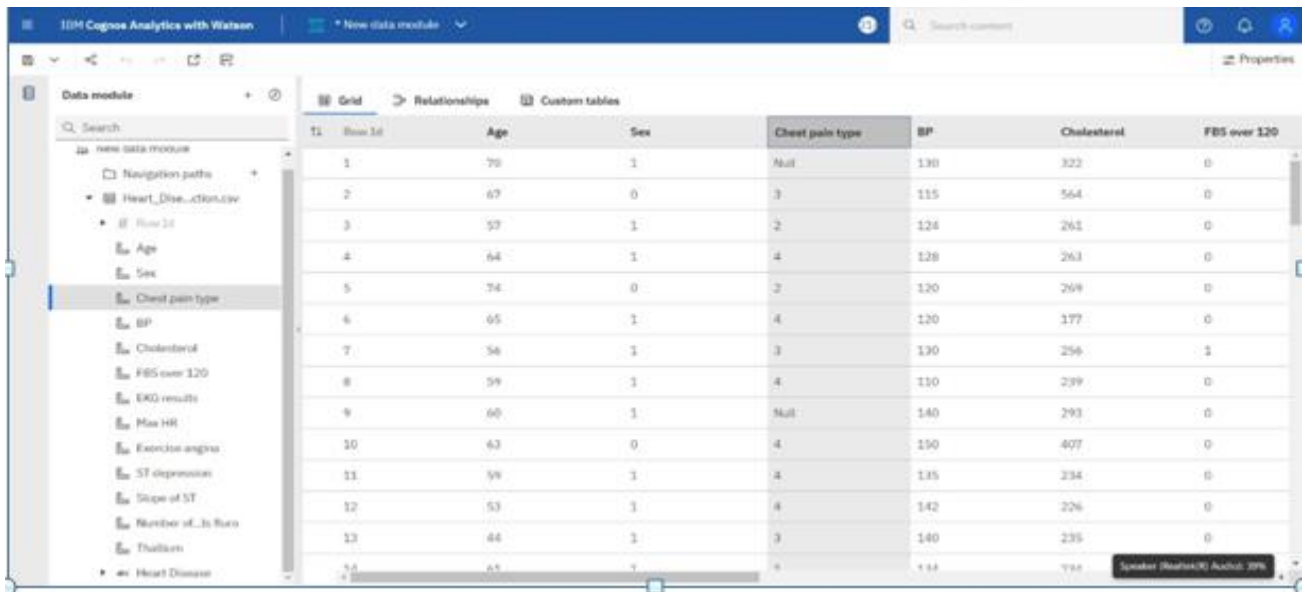
The screenshot displays the IBM Cognos Analytics 'Content' page. The top navigation bar includes 'IBM Cognos Analytics with Watson', a 'Content' dropdown, a search bar, and user profile icons. Below the navigation bar, the 'Content' section is active, showing tabs for 'My content', 'Team content', and 'Samples'. A table lists the content items:

Name	Type	Last Accessed
50_Startups.csv	Uploaded file	15/09/2022, 08:39
Bank Analysis Dashboard	Dashboard	19/09/2022, 01:35
bank.csv	Uploaded file	19/09/2022, 00:03
bikebuyer.csv	Uploaded file	14/09/2022, 09:02
Heart_Disease_Prediction.csv	Uploaded file	30/10/2022, 01:19
Olympic Events.xlsx	Uploaded file	08/09/2022, 10:19
Olympic Medals.xlsx	Uploaded file	08/09/2022, 10:19

Data Cleaning and Data Processing using Cognos Analytics:

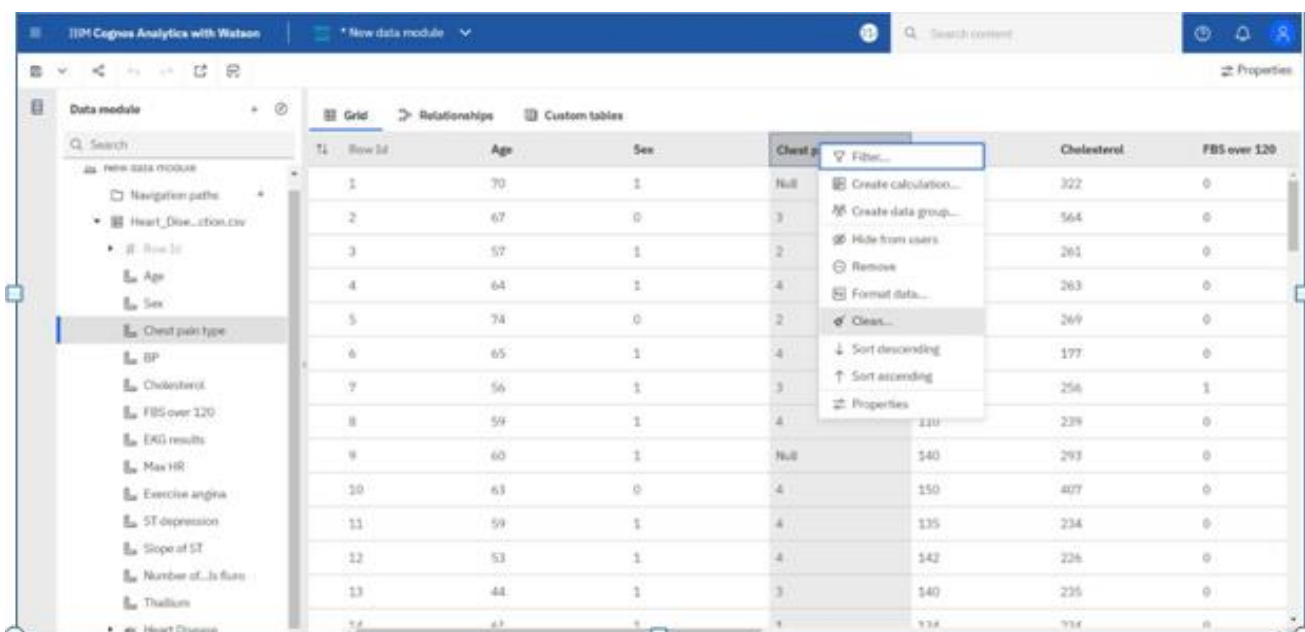
USN-2:

- As an Analyst, I will check the data set and clean the dataset to create an efficient model.
- To Data cleaning the null values in disease_prediction.csv Dataset.
-



The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists the columns of the 'Heart_Disease.csv' dataset. The main area displays a data grid with the following columns: Row Id, Age, Sex, Chest pain type, BP, Cholesterol, and FBS over 120. The 'Chest pain type' column contains several null values.

Row Id	Age	Sex	Chest pain type	BP	Cholesterol	FBS over 120
1	70	1	Null	130	322	0
2	67	0	3	115	564	0
3	57	1	2	124	261	0
4	64	1	4	128	263	0
5	74	0	2	120	269	0
6	65	1	4	120	177	0
7	56	1	3	130	256	1
8	59	1	4	110	239	0
9	60	1	Null	140	293	0
10	63	0	4	150	407	0
11	59	1	4	135	234	0
12	53	1	4	142	226	0
13	44	1	3	140	235	0



The screenshot shows the same data grid as above, but with a context menu open over the 'Chest pain type' column. The menu options are: Filter..., Create calculation..., Create data group..., Hide from users, Remove, Format data..., Clean..., Sort descending, Sort ascending, and Properties.

Row Id	Age	Sex	Chest pain type	BP	Cholesterol	FBS over 120
1	70	1	Null	130	322	0
2	67	0	3	115	564	0
3	57	1	2	124	261	0
4	64	1	4	128	263	0
5	74	0	2	120	269	0
6	65	1	4	120	177	0
7	56	1	3	130	256	1
8	59	1	4	110	239	0
9	60	1	Null	140	293	0
10	63	0	4	150	407	0
11	59	1	4	135	234	0
12	53	1	4	142	226	0
13	44	1	3	140	235	0

IBM Cognos Analytics with Watson

* New data module

Search content

Properties

Data module

Search

new data module

Navigation paths

Heart_Disease.csv

Row Id

Age

Sex

Chest pain type

BP

Cholesterol

FBS over 120

1 70 1 Null 130 322 0

2 67 0 3 115 564 0

3 57 1 2 124 261 0

4 64 1 4 128 263 0

5 74 0 2 120 269 0

6 65 1 4 120 177 0

7 56 1 3 130 256 1

8 59 1 4 110 239 0

9 60 1 4 140 293 0

10 63 0 4 150 407 0

11 59 1 4 135 234 0

12 53 1 4 142 226 0

13 44 1 3 140 235 0

14 61 1 1 114 214 0

Grid Relationships Custom tables

Clean - Chest pain type

NULL values

☐ Replace this value with NULL

☒ Replace NULL values with 4

Cancel Clean

IBM Cognos Analytics with Watson

* New data module

Search content

Properties

Data module

Search

new data module

Navigation paths

Heart_Disease.csv

Row Id

Age

Sex

Chest pain type

BP

Cholesterol

FBS over 120

1 70 1 4 130 322 0

2 67 0 3 115 564 0

3 57 1 2 124 261 0

4 64 1 4 128 263 0

5 74 0 2 120 269 0

6 65 1 4 120 177 0

7 56 1 3 130 256 1

8 59 1 4 110 239 0

9 60 1 4 140 293 0

10 63 0 4 150 407 0

11 59 1 4 135 234 0

12 53 1 4 142 226 0

13 44 1 3 140 235 0

14 61 1 1 114 214 0

Grid Relationships Custom tables

IBM Cognos Analytics with Watson

New data module

11

Search content

Properties

Data module

new data module

Navigation paths

Heart_Disease.csv

Row Id

Age

Sex

Chest pain type

BP

Cholesterol

FBS over 120

EKG results

Max HR

Exercise angina

ST depression

Slope of ST

Number of...Is fluo

Thallium

Heart Disease

Grid

Relationships

Custom tables

11	Exercise angina	ST depression	Slope of ST	Number of vessels fluo	Thallium	Heart Disease
0	2.4	2	3	3	Presence	
0	1.6	2	Null	7	Absence	
0	0.3	1	Null	7	Presence	
1	0.2	2	1	7	Absence	
1	0.2	1	1	3	Absence	
0	0.4	1	Null	7	Absence	
1	0.6	2	1	6	Presence	
1	1.2	2	1	7	Presence	
0	1.2	2	2	7	Presence	
0	4	2	3	7	Presence	
0	0.5	2	0	7	Absence	
1	0	1	0	7	Absence	
0	0	1	0	3	Absence	
0	2.4	2	3	3	Presence	

IBM Cognos Analytics with Watson | New data module | Search content | Properties

Data module

new data module

- Navigation paths
- Heart_Disease.csv
 - Row Id
 - Age
 - Sex
 - Chest pain type
 - BP
 - Cholesterol
 - FBS over 120
 - EKG results
 - Max HR
 - Exercise angina
 - ST depression
 - Slope of ST
 - Number of...Is fluo
 - Thallium
 - Heart Disease

11	Exercise angina	ST depression	Slope of ST	Num	Heart Disease
0	2.4	2	3	3	Presence
0	1.6	2	Null	7	Absence
0	0.3	1	Null	7	Presence
1	0.2	2	1	7	Absence
1	0.2	1	1	3	Absence
0	0.4	1	Null	7	Absence
1	0.6	2	1	6	Presence
1	1.2	2	1	7	Presence
0	1.2	2	2	7	Presence
0	4	2	3	7	Presence
0	0.5	2	0	7	Absence
1	0	1	0	7	Absence
0	0	1	0	3	Absence
0	2.4	2	3	3	Presence

Filter...

- Create calculation...
- Create data group...
- Hide from users
- Remove
- Format data...
- Clean...
- Sort descending
- Sort ascending
- Properties

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Grid Relationships Custom tables

Search

New data module

Navigation paths

Heart_Dise_ction.csv

Row Id

Age

Sex

Chest pain type

BP

Cholesterol

FBS over 120

EKG results

Max HR

Exercise angina

ST depression

Slope of ST

Number of vessels fluro

Thallium

Heart Disease

Exercise angina

ST depression

Slope of ST

Number of vessels fluro

Thallium

Heart Disease

0 2.4 2 3 3 Presence

0 1.6 2 0 7 Absence

0 0.3 1 0 7 Presence

1 0.2 2 1 7 Absence

1 0.2 1 1 3 Absence

0 0.4 1 0 7 Absence

1 0.6 2 1 6 Presence

1 1.2 2 1 7 Presence

0 1.2 2 2 7 Presence

0 4 2 3 7 Presence

0 0.5 2 0 7 Absence

1 0 1 0 7 Absence

0 0 1 0 3 Absence

0 2.4 2 3 3 Presence

Clean - Number of vessels fluro

NULL values

☐ Replace this value with NULL

☒ Replace NULL values with

0

4

Cancel Clean

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Grid Relationships Custom tables

Search

New data module

Navigation paths

Heart_Dise_ction.csv

Row Id

Age

Sex

Chest pain type

BP

Cholesterol

FBS over 120

EKG results

Max HR

Exercise angina

ST depression

Slope of ST

Number of vessels fluro

Thallium

Heart Disease

Row Id	Exercise angina	ST depression	Slope of ST	Number of vessels fluro	Thallium	Heart Disease
0	0	2.4	2	3	3	Presence
0	0	1.6	2	0	7	Absence
0	0	0.3	1	0	7	Presence
1	1	0.2	2	1	7	Absence
1	1	0.2	1	1	3	Absence
0	0	0.4	1	0	7	Absence
1	1	0.6	2	1	6	Presence
1	1	1.2	2	1	7	Presence
0	0	1.2	2	2	7	Presence
0	0	4	2	3	7	Presence
0	0	0.5	2	0	7	Absence
1	1	0	1	0	7	Absence
0	0	0	1	0	3	Absence
0	0	2.4	2	3	3	Presence

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Grid Relationships Custom tables

Search

new data module

- Navigation paths
- Heart_Dise_ction.csv
 - Row Id
 - Age
 - Sex
 - Chest pain type
 - BP
 - Cholesterol
 - FBS over 120
 - EKG results
 - Max HR
 - Exercise angina
 - ST depression
 - Slope of ST
 - Number of...s fluo
 - Thallium
- Heart Disease

Row Id	Exercise angina	ST depression	Slope of ST	Number of vessels fluo	Thallium	Heart Disease
0	0	2.4	2	3	3	Presence
0	0	1.6	2	0	7	Absence
0	0	0.3	1	0	7	Presence
1	1	0.2	2	1	7	Absence
1	1	0.2	1	1	3	Presence
0	0	0.4	1	0	7	Absence
1	1	0.6	2	1	6	Presence
1	1	1.2	2	1	7	Absence
0	0	1.2	2	2	7	Presence
0	0	4	2	3	7	Absence
0	0	0.5	2	0	7	Presence
1	1	0	1	0	7	Absence
0	0	0	1	0	3	Presence
0	0	2.4	2	2	3	Absence

Filter...

- Create data group...
- Create navigation path...
- Split...
- Hide from users
- Remove
- Format data...
- Clean...
- Sort descending
- Sort ascending
- Properties

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Grid Relationships Custom tables

Search

new data module

- Navigation paths
- Heart_Dise_ction.csv
 - Row Id
 - Age
 - Sex
 - Chest pain type
 - BP
 - Cholesterol
 - FBS over 120
 - EKG results
 - Max HR
 - Exercise angina
 - ST depression
 - Slope of ST
 - Number of...s fluo
 - Thallium
- Heart Disease

Clean - Heart Disease

Whitespace

☐ Trim leading and trailing whitespace

Convert case to

☐ UPPERCASE ☐ lowercase ☒ Do not change

Return a substring of characters

Start Length

Preview

This is a preview

NULL values

☐ Replace this value with NULL

☒ Replace NULL values with

Cancel Clean

Number of vessels fluo	Thallium	Heart Disease
3	3	Presence
7	7	Absence
7	7	Presence
7	7	Absence
3	3	Absence
7	7	Absence
6	6	Presence
7	7	Presence
7	7	Presence
7	7	Absence
7	7	Absence
3	3	Absence
7	7	Presence

The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane lists various fields from the 'Heart_Disease.csv' dataset. The main area displays a table with the following columns: T1, Exercise angina, ST depression, Slope of ST, Number of vessels fluro, Thallium, and Heart Disease. The 'Heart Disease' column contains values 'Presence' and 'Absence'.

T1	Exercise angina	ST depression	Slope of ST	Number of vessels fluro	Thallium	Heart Disease
1	1	3.4	3	0	7	Presence
1	1	0.9	2	0	7	Presence
1	1	0	1	2	7	Presence
1	1	1.9	1	1	7	Presence
0	0	0	1	0	3	Presence
0	0	0	1	0	3	Absence
0	0	0	1	0	3	Absence
0	0	0	1	0	7	Presence
0	0	0	1	0	3	Absence
1	1	0.4	1	0	3	Absence
0	0	0	1	0	7	Absence
0	0	2.2	2	1	6	Presence
0	0	0	1	0	3	Absence

Creating The Data Module using Cognos Analytics:

USN-3:

- As an Analyst I will also correct the raw data and create a data module. I will Create the data module - disease_prediction.csv Dataset.

This screenshot is identical to the one above, showing the IBM Cognos Analytics interface with the same data module and table structure.

T1	Exercise angina	ST depression	Slope of ST	Number of vessels fluro	Thallium	Heart Disease
1	1	3.4	3	0	7	Presence
1	1	0.9	2	0	7	Presence
1	1	0	1	2	7	Presence
1	1	1.9	1	1	7	Presence
0	0	0	1	0	3	Presence
0	0	0	1	0	3	Absence
0	0	0	1	0	3	Absence
0	0	0	1	0	7	Presence
0	0	0	1	0	3	Absence
1	1	0.4	1	0	3	Absence
0	0	0	1	0	7	Absence
0	0	2.2	2	1	6	Presence
0	0	0	1	0	3	Absence

