

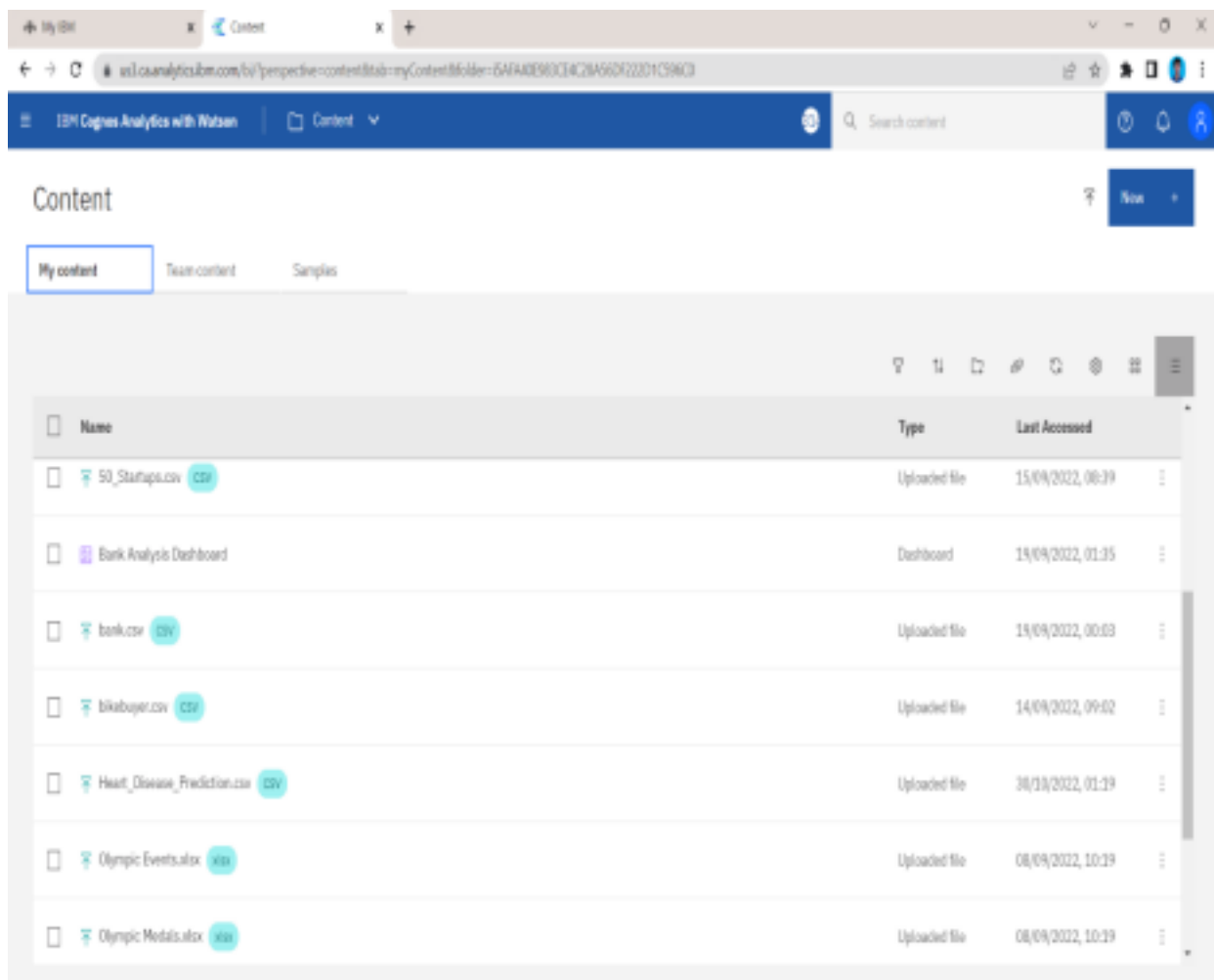
Sprint Delivery Plan I

Date	28 October 2022
Team ID	PPNT2022TMID15823
Project Name	Project - 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.



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 heart_disease_prediction.csv Dataset.

IBM Cognos Analytics with Watson

Search

new data module

Navigation paths

- Heart_Disea...csv
 - Row ID
 - Age
 - Sex
 - Chest pain type
 - BP
 - Cholesterol
 - FBS over 120
 - ERG results
 - Max HR
 - Exercise angina
 - ST depression
 - Slope of ST
 - Number of...to fluro
 - Thallium
- Heart Disease

Row ID	Age	Sex	Chest pain type	BP	Cholesterol	FBS over 120
1	70	1	Null	180	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	64	1	3	140	235	0
14	61	1	1	114	114	0

Speaker (Bluetooth) Audio: 39%

IBM Cognos Analytics with Watson

Search

new data module

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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	64	1	3	140	235	0
14	61	1	1	114	114	0

Context menu options:

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

IBM Cognos Analytics with Watson

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_1s_furs

Thallium

Heart Disease

Grid Relationships Custom tables

Row Id

Age

Sex

Chest pain type

BP

Cholesterol

FBS over 120

1

70

1

Null

130

322

0

2

67

0

3

135

564

0

3

57

1

2

124

261

0

4

64

1

4

138

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

130

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

41

1

1

134

114

0

Clean - Chest pain type

NULL values

☐ Replace this value with NULL

☒ Replace NULL values with

4

Cancel

Clean

IBM Cognos Analytics with Watson

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_1s_furs

Thallium

Heart Disease

Grid Relationships Custom tables

Row Id

Age

Sex

Chest pain type

BP

Cholesterol

FBS over 120

1

70

1

4

130

322

0

2

67

0

3

135

564

0

3

57

1

2

124

261

0

4

64

1

4

138

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

130

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

41

1

1

134

114

0

My BM | * New data module

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

ECG results

Max HR

Exercise angina

ST depression

Slope of ST

Number of_1s fluro

Thallium

Heart Disease

T1	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	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	1.4	1	3	3	Presence	

My BM | * New data module

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

ECG results

Max HR

Exercise angina

ST depression

Slope of ST

Number of_1s fluro

Thallium

Heart Disease

T1	Exercise angina	ST depression	Slope of ST	Number of_1s fluro	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	1.4	1	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

Search content

Properties

Data module

Grid Relationships Custom tables

Heart_Disease.csv

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

Clean - Number of vessels fluro

NULL values

☐ Replace this value with NULL

☒ Replace NULL values with

Cancel Clean

ti	Exercise angina	ST depression	Slope of ST	Number of vessels fluro	Thallium	Heart Disease
0		2.4	2	3	3	Presence
0				Null	7	Absence
0				Null	7	Presence
1				1	7	Absence
1				3		Absence
0				Null	7	Absence
1				1	6	Presence
1				1	7	Presence
0				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	7.6		7	7	3	Presence

IBM Cognos Analytics with Watson

Search content

Properties

Data module

Grid Relationships Custom tables

Heart_Disease.csv

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

ti	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	7.6		7	7	3	Presence

IBM Cognos Analytics with Watson

Search content

Properties

Data module

new data module

- Navigation paths
- Heart_Disease.csv
 - flow 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

11	Exercise angina	ST depression	Slope of ST	Number of vessels fluro	Thallium	
	0	2.4	2	3	3	
	0	1.6	2	0	7	
	0	0.3	1	0	7	
	1	0.2	2	1	7	
	1	0.2	1	1	3	
	0	0.4	1	0	7	
	1	0.6	2	1	6	
	1	1.2	2	1	7	
	0	1.2	2	2	7	
	0	4	2	3	7	
	0	0.5	2	0	7	
	1	0	1	0	7	
	0	0	1	0	3	
	0	7.6	7	0	0	

Filter...

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

Presence

Presence

Absence

Absence

Absence

Presence

IBM Cognos Analytics with Watson

Search content

Properties

Data module

new data module

- Navigation paths
- Heart_Disease.csv
 - flow 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

11	Exercise angina	ST depression	Slope of ST	Number of vessels fluro	Thallium	Heart Disease
	3					Presence
	7					Absence
	7					Presence
	7					Absence
	3					Absence
	7					Absence
	6					Presence
	7					Presence
	7					Presence
	7					Absence
	7					Absence
	3					Absence
						Presence

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

Done

Id	Exercise angina	ST depression	Slope of ST	Number of vessels fluor	Thallium	Heart Disease
1	1	3.4	3	0	7	Presence
2	1	0.9	2	0	7	Presence
3	1	0	1	2	7	Presence
4	1	1.9	1	1	7	Presence
5	0	0	1	0	3	Presence
6	0	0	1	0	3	Absence
7	0	0	1	0	3	Absence
8	0	0	1	0	7	Presence
9	0	0	1	0	3	Absence
10	1	0.4	1	0	3	Absence
11	0	0	1	0	7	Absence
12	0	2.2	2	1	6	Presence
13	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 using heart_disease_prediction.csv Dataset.

Id	Exercise angina	ST depression	Slope of ST	Number of vessels fluor	Thallium	Heart Disease
1	1	3.4	3	0	7	Presence
2	1	0.9	2	0	7	Presence
3	1	0	1	2	7	Presence
4	1	1.9	1	1	7	Presence
5	0	0	1	0	3	Presence
6	0	0	1	0	3	Absence
7	0	0	1	0	3	Absence
8	0	0	1	0	7	Presence
9	0	0	1	0	3	Absence
10	1	0.4	1	0	3	Absence
11	0	0	1	0	7	Absence
12	0	2.2	2	1	6	Presence
13	0	0	1	0	3	Absence

IBM Cognos Analytics with Watson

Heart disease Prediction data module

Search content

Properties

Data module

Search

Heart disease...data module

- Navigation paths
- Heart_Disease_classification
 - Row ID
 - Age
 - Sex
 - Chest pain type
 - BP
 - Cholesterol
 - FBS over 120
 - ECG results
 - Max HR
 - Exercise angina
 - ST depression
 - Slope of ST
 - Number of_1s fluro
 - Thallium

Grid Relationships Custom tables

Preview data

To preview data, select a table, a column in a table, or a folder that contains columns.

IBM Cognos Analytics with Watson

Heart disease Prediction data module

Search content

Properties

Data module

Search

Heart disease...data module

- Navigation paths
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 - ST depression
 - Slope of ST
 - Number of_1s fluro
 - Thallium

Grid Relationships Custom tables

Heart_Disease_classification

Diagram settings

- Cardinality
- Focus mode
- Degrees of separation: 1