

**PROJECT DEVELOPMENT  
PHASE SPRINT DELIVERY-1**

**TEAM ID :PNT2022TMID33091**

**BATCH NO : B9-3A5E**

**PROJECT : Analytics for  
Hospitals Health-Care Data**

**DATE : 19 NOV 2022**

# **Sprint Delivery Plan I**

## **Project Development Phase**

### **SPRINT-I**

Data Collection  
Data Preparation

### **SPRINT-III**

Dashboard Creation

### **SPRINT-II**

Data Exploration  
Story Creation

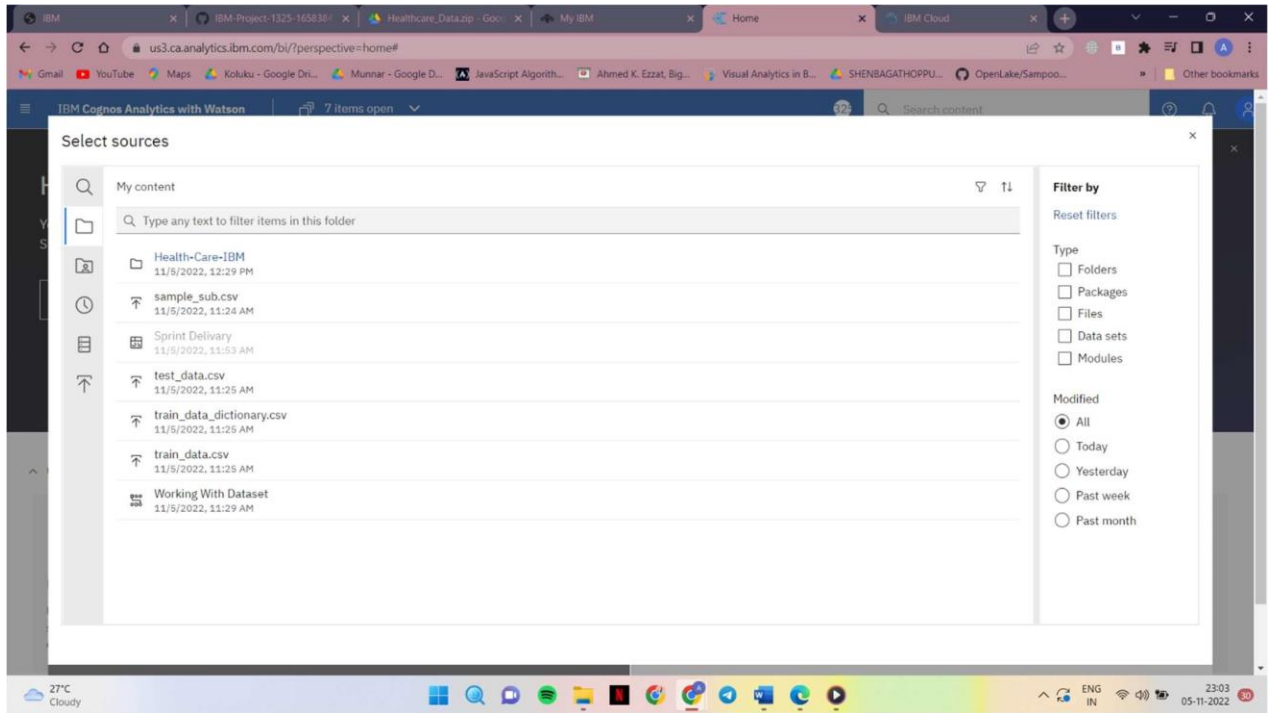
### **SPRINT-IV**

Report Creation  
Story Creation

## **Importing Data Sets of Analytics for Hospitals Health Care Data Using CognosAnalysis:**

### **USN-1:**

- As a User I can enter the details of the patients working in our organization of the details.
- Uploading the dataset of test\_data.csv and train\_data.csv file to IBM Cognos Analytics.



IBM Cognos Analytics with Watson

# Hello. Welcome to

You can get started right away by clicking the Started tab.

Watch video

## Quick launch

Upload data

Upload or drag and drop spreadsheets, csv files, and other data sources.

### Add a data source to explore

My content | Team content

Name	Type	Last Accessed
Health-Care-IBM	Folder	11/5/2022, 12:29 PM
sample_sub.csv	Uploaded file	11/5/2022, 11:24 AM
test_data.csv	Uploaded file	11/5/2022, 11:25 AM
train_data_dictionary.csv	Uploaded file	11/5/2022, 11:25 AM
train_data.csv	Uploaded file	11/5/2022, 11:25 AM
Working With Dataset	Data module	11/5/2022, 11:29 AM

Cancel Add

27°C Cloudy

23:07 05-11-2022

IBM Cognos Analytics with Watson

\* New data module

Search content

Properties

### Data module

Search

- New data module
  - Navigation paths
    - train\_data.csv
      - # Row Id
      - # case\_id
      - # Hospital\_code
      - Hospital\_type\_code
      - City\_Code\_Hospital
      - Hospital\_region\_code
      - Available...Hospital
      - Department
      - Ward\_Type
      - Ward\_Facility\_Code
      - Bed Grade
      - patientid
      - City\_Code\_Patient
      - Time of Admission

Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available E...In Hc
1	1	8	c	3	Z	3
2	2	2	c	5	Z	2
3	3	10	e	1	X	2
4	4	26	b	2	Y	2
5	5	26	b	2	Y	2
6	6	23	a	6	X	2
7	7	32	f	9	Y	1
8	8	23	a	6	X	4
9	9	1	d	10	Y	2
10	10	10	e	1	X	2
11	11	22	g	9	Y	2
12	12	26	b	2	Y	4
13	13	16	c	3	Z	2

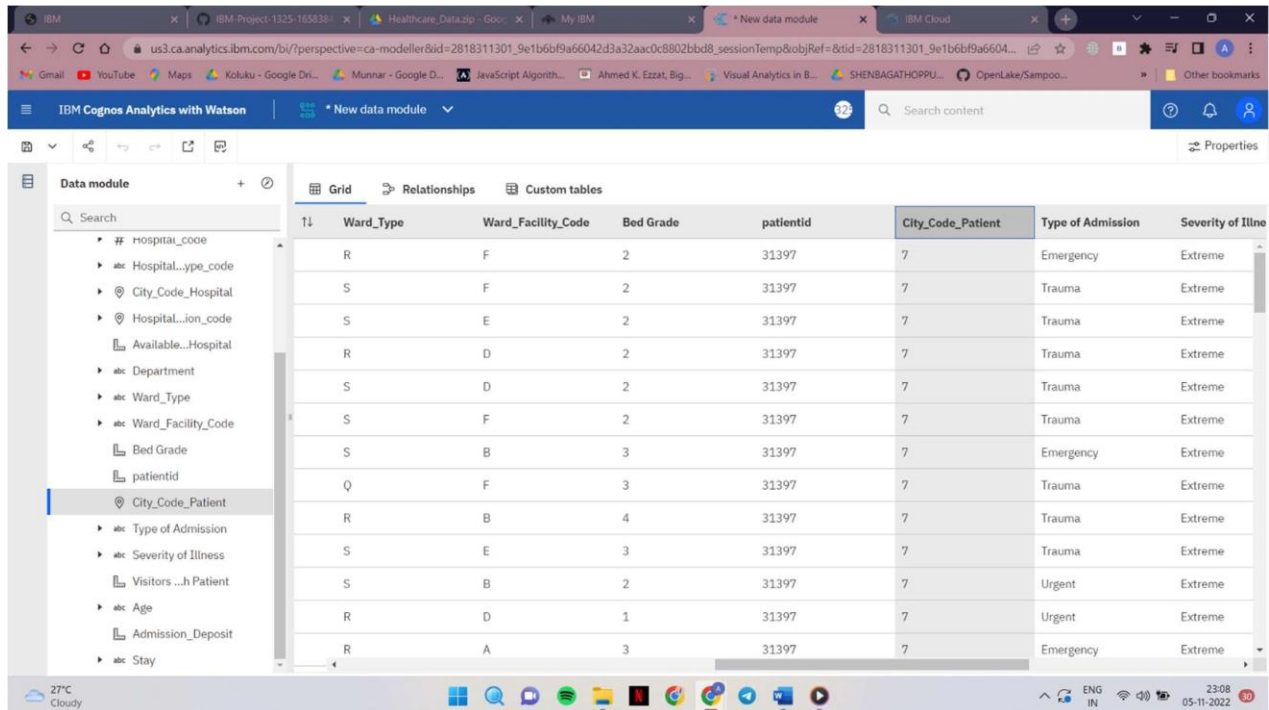
27°C Cloudy

23:08 05-11-2022

## 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 test\_data.csv dataset first.

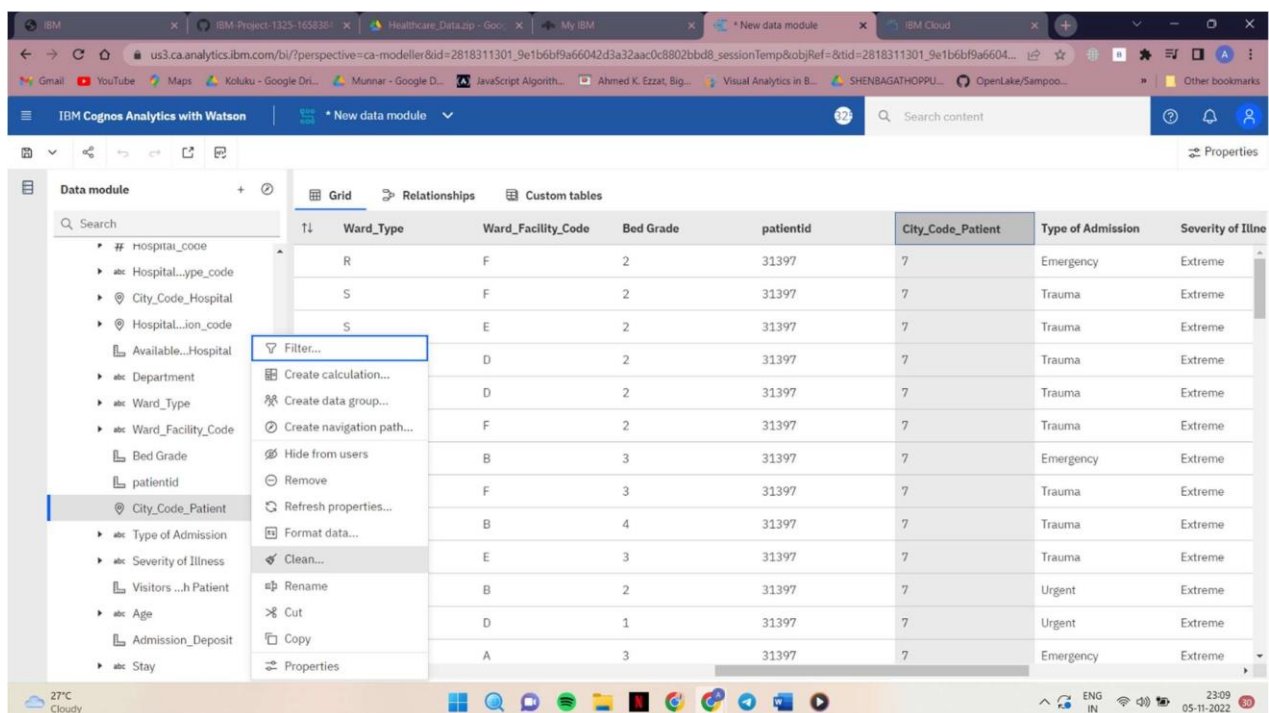


IBM Cognos Analytics with Watson

Data module

Grid Relationships Custom tables

Ward_Type	Ward_Facility_Code	Bed Grade	patientid	City_Code_Patient	Type of Admission	Severity of Illness
R	F	2	31397	7	Emergency	Extreme
S	F	2	31397	7	Trauma	Extreme
S	E	2	31397	7	Trauma	Extreme
R	D	2	31397	7	Trauma	Extreme
S	D	2	31397	7	Trauma	Extreme
S	F	2	31397	7	Trauma	Extreme
S	B	3	31397	7	Emergency	Extreme
Q	F	3	31397	7	Trauma	Extreme
R	B	4	31397	7	Trauma	Extreme
S	E	3	31397	7	Trauma	Extreme
S	B	2	31397	7	Urgent	Extreme
R	D	1	31397	7	Urgent	Extreme
R	A	3	31397	7	Emergency	Extreme



IBM Cognos Analytics with Watson

Data module

Grid Relationships Custom tables

Ward_Type	Ward_Facility_Code	Bed Grade	patientid	City_Code_Patient	Type of Admission	Severity of Illness
R	F	2	31397	7	Emergency	Extreme
S	F	2	31397	7	Trauma	Extreme
S	E	2	31397	7	Trauma	Extreme
	D	2	31397	7	Trauma	Extreme
	D	2	31397	7	Trauma	Extreme
	F	2	31397	7	Trauma	Extreme
	B	3	31397	7	Emergency	Extreme
	F	3	31397	7	Trauma	Extreme
	B	4	31397	7	Trauma	Extreme
	E	3	31397	7	Trauma	Extreme
	B	2	31397	7	Urgent	Extreme
	D	1	31397	7	Urgent	Extreme
	A	3	31397	7	Emergency	Extreme

Filter...  
Create calculation...  
Create data group...  
Create navigation path...  
Hide from users  
Remove  
Refresh properties...  
Format data...  
Clean...  
Rename  
Cut  
Copy  
Properties

IBM Cognos Analytics with Watson

us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=2818311301\_9e1b6bf9a6604d3a32aac0c8802bbd8\_sessionTemp&objRef=&tid=2818311301\_9e1b6bf9a6604...

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Search

- # hospital\_code
- # Hospital...ype\_code
- City\_Code\_Hospital
- Hospital...ion\_code
- Available...Hospital
- Department
- Ward\_Type
- Ward\_Facility\_Code
- Bed Grade
- patientid
- City\_Code\_Patient
- Type of Admission
- Severity of Illness
- Visitors ...h Patient
- Age
- Admission\_Deposit
- Stay

Grid Relationships Custom tables

City\_Code\_Patient

Clean - City\_Code\_Patient

NULL values

☐ Replace this value with NULL

☒ Replace NULL values with

0

7

Cancel Clean

In Hospital	Department	Ward_Type	Ward_Facility_Code	Bed Grade	patientid	City_Code_Patient
rac	gynecology	R	B	4	31397	7
rac	gynecology	S	E	3	31397	7
rac	radiotherapy	S	B	2	31397	7
rac	radiotherapy	R	D	1	31397	7
rac	radiotherapy	R	A	3	31397	7

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IBM Cognos Analytics with Watson

us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=ib098093CFA5E46EFA034F96802C45ADD&objRef=ib098093CFA5E46EFA034F96802C45ADD&tid=3019265856\_f53f...

IBM Cognos Analytics with Watson

Test\_Data\_Module

Search content

Properties

Data module

Search

- Test\_Data\_Module
- Navigation paths
- train\_data.csv
- # Row Id
- # case\_id
- # Hospital\_code
- # Hospital...ype\_code
- City\_Code\_Hospital
- Hospital...ion\_code
- Available...Hospital
- Department
- Ward\_Type
- Ward\_Facility\_Code
- Bed Grade
- patientid

Grid Relationships Custom tables

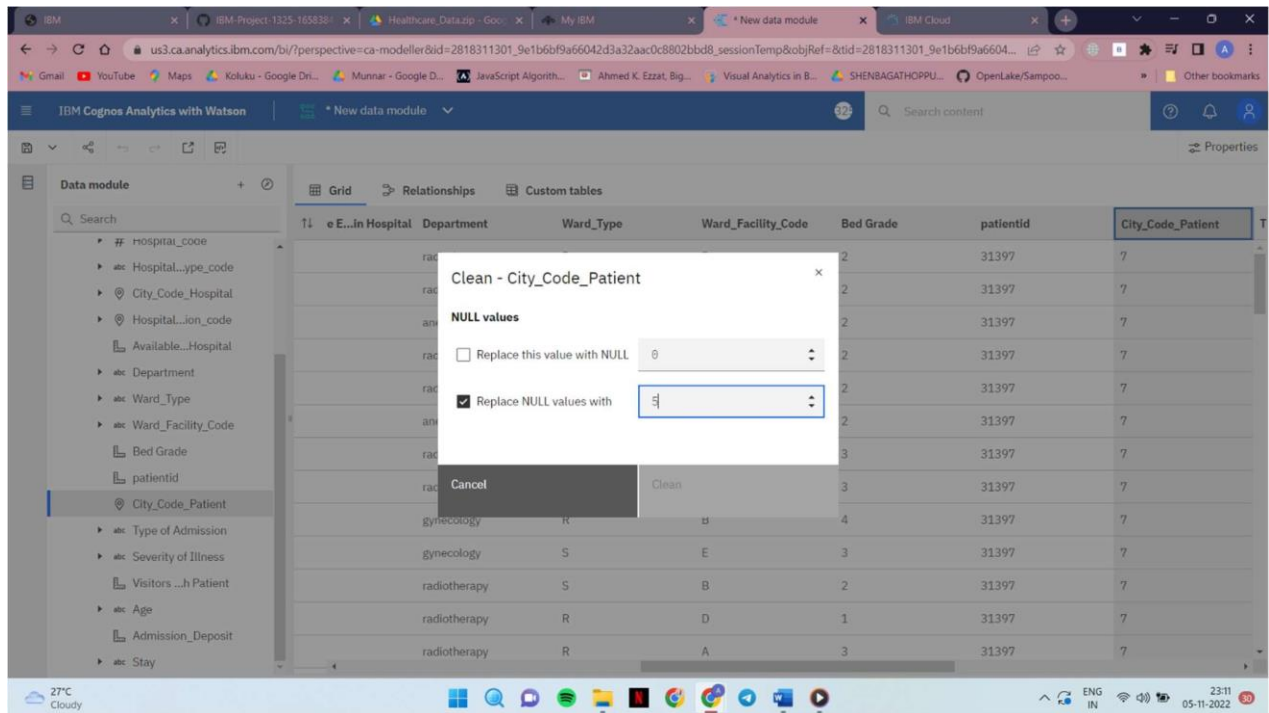
case\_id

case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available E...in Hospital	Department
86	11	b	2	Y	3	gynecology
87	32	f	9	Y	3	gynecology
88	11	b	2	Y	3	anesthesia
89	19	a	7	Y	4	gynecology
90	19	a	7	Y	4	gynecology
91	9	d	5	Z	3	radiotherapy
92	19	a	7	Y	6	gynecology
93	9	d	5	Z	4	gynecology
94	23	a	6	X	5	gynecology
95	29	a	4	X	4	gynecology
96	1	d	10	Y	4	gynecology

26°C Mostly cloudy

00:50 06-11-2022

- To Data cleaning the null values in train\_data.csv dataset.



IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

Search

- # hospital\_code
- Hospital...ype\_code
- City\_Code\_Hospital
- Hospital...ion\_code
- Available...Hospital
- Department
- Ward\_Type
- Ward\_Facility\_Code
- Bed Grade
- patientid
- City\_Code\_Patient
- Type of Admission
- Severity of Illness
- Visitors ...h Patient
- Age
- Admission\_Deposit
- Stay

Clean - Severity of Illness

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

Patient	Type of Admission	Severity of Illness
	Emergency	Extreme
	Trauma	Extreme
	Trauma	Extreme
	Trauma	Extreme
	Trauma	Extreme
	Trauma	Extreme
	Emergency	Extreme
	Trauma	Extreme
	Trauma	Extreme
	Trauma	Extreme
	Urgent	Extreme
	Urgent	Extreme
	Emergency	Extreme

25°C Cloudy

00:21 06-11-2022

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Test\_Data\_Module

Search content

Properties

Data module

Search

- # hospital\_code
- Hospital...ype\_code
- City\_Code\_Hospital
- Hospital...ion\_code
- Available...Hospital
- Department
- Ward\_Type
- Ward\_Facility\_Code
- Bed Grade
- patientid
- City\_Code\_Patient
- Type of Admission
- Severity of Illness
- Visitors ...h Patient
- Age
- Admission\_Deposit
- Stay

Grid Relationships Custom tables

acility_Code	Bed Grade	patientid	City_Code_Patient	Type of Admission	Severity of Illness	Visitors with Patient
4	4	82551	8	Trauma	Minor	2
4	4	82551	8	Emergency	Minor	2
3	3	88451	8	Trauma	Moderate	4
2	2	88451	8	Emergency	Moderate	4
2	2	88451	8	Emergency	Moderate	4
3	3	88451	8	Urgent	Moderate	13
1	1	88451	8	Emergency	Moderate	4
2	2	21257	7	Urgent	Moderate	3
2	2	21257	7	Urgent	Moderate	8
2	2	21257	7	Emergency	Moderate	2
1	1	21257	7	Urgent	Moderate	2
2	2	21257	7	Urgent	Moderate	2

26°C Mostly cloudy

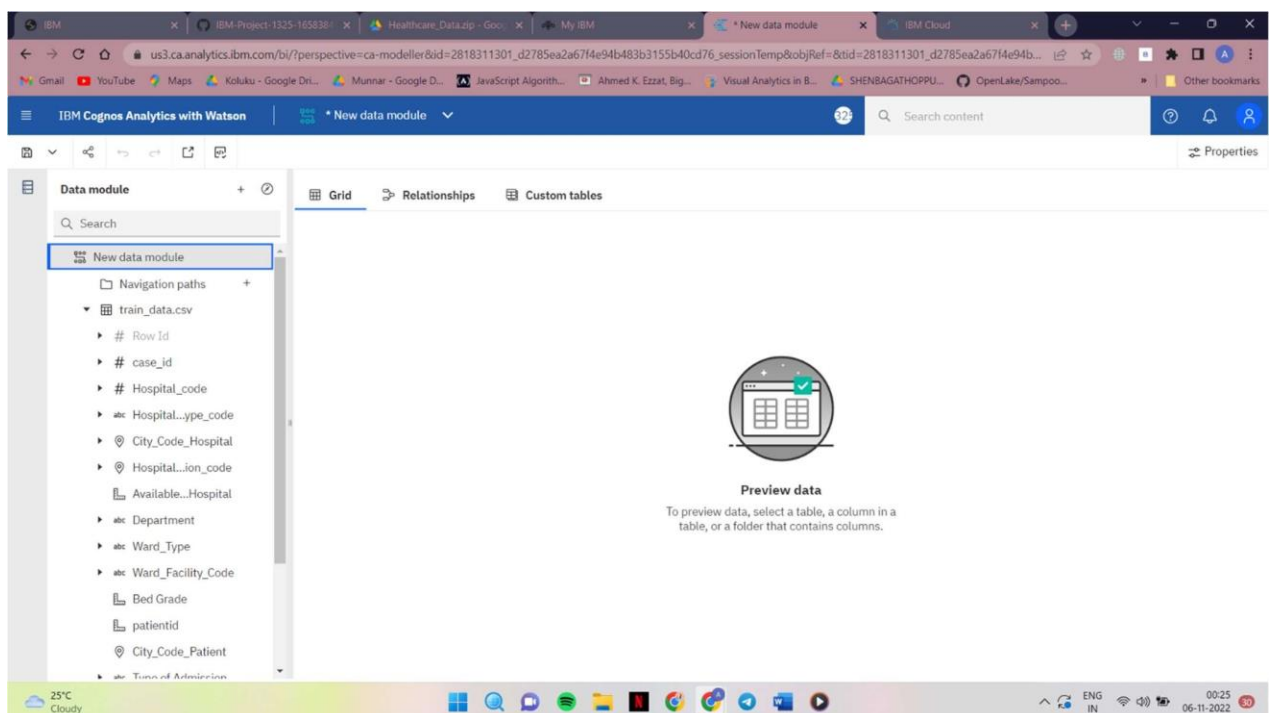
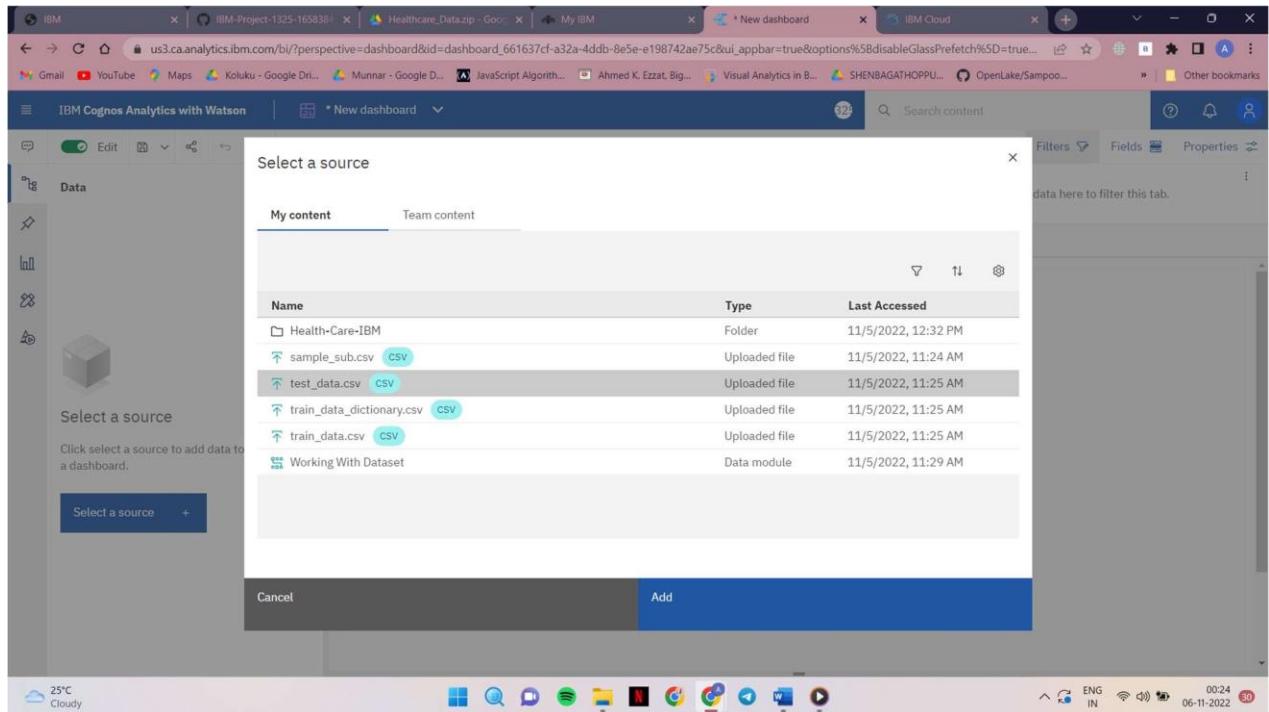
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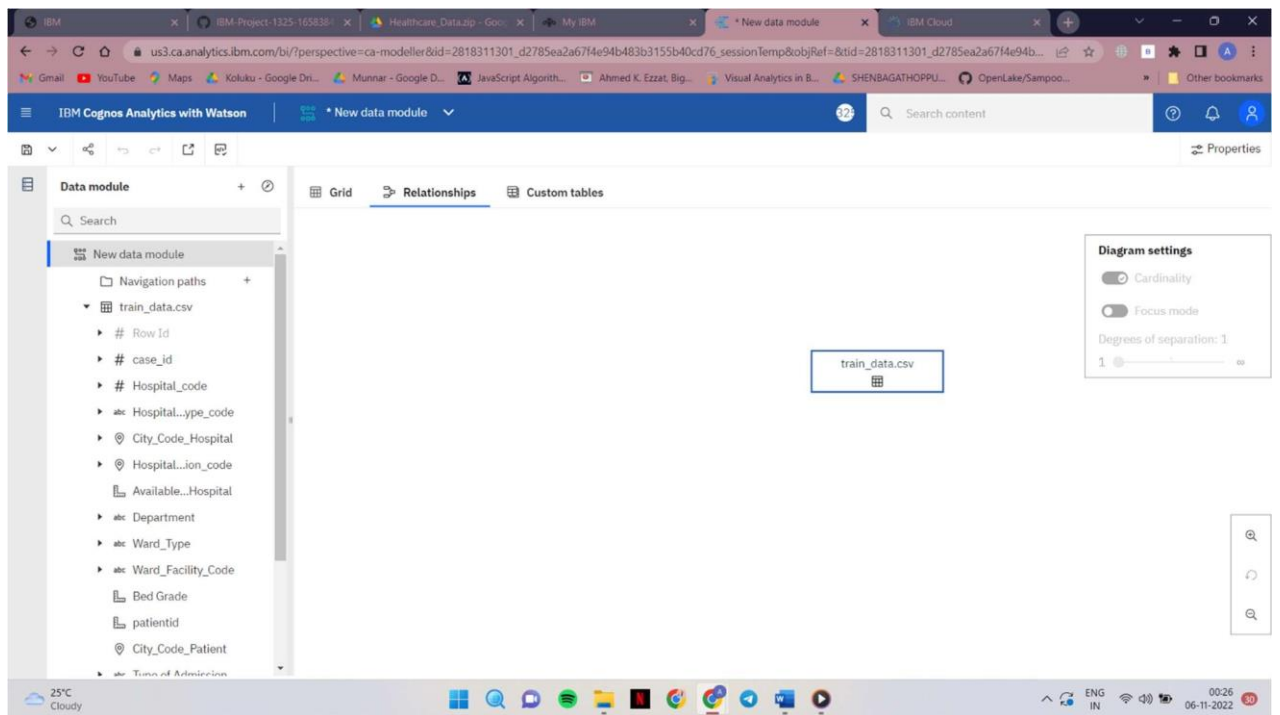


## Creating The Data Module using Cognos

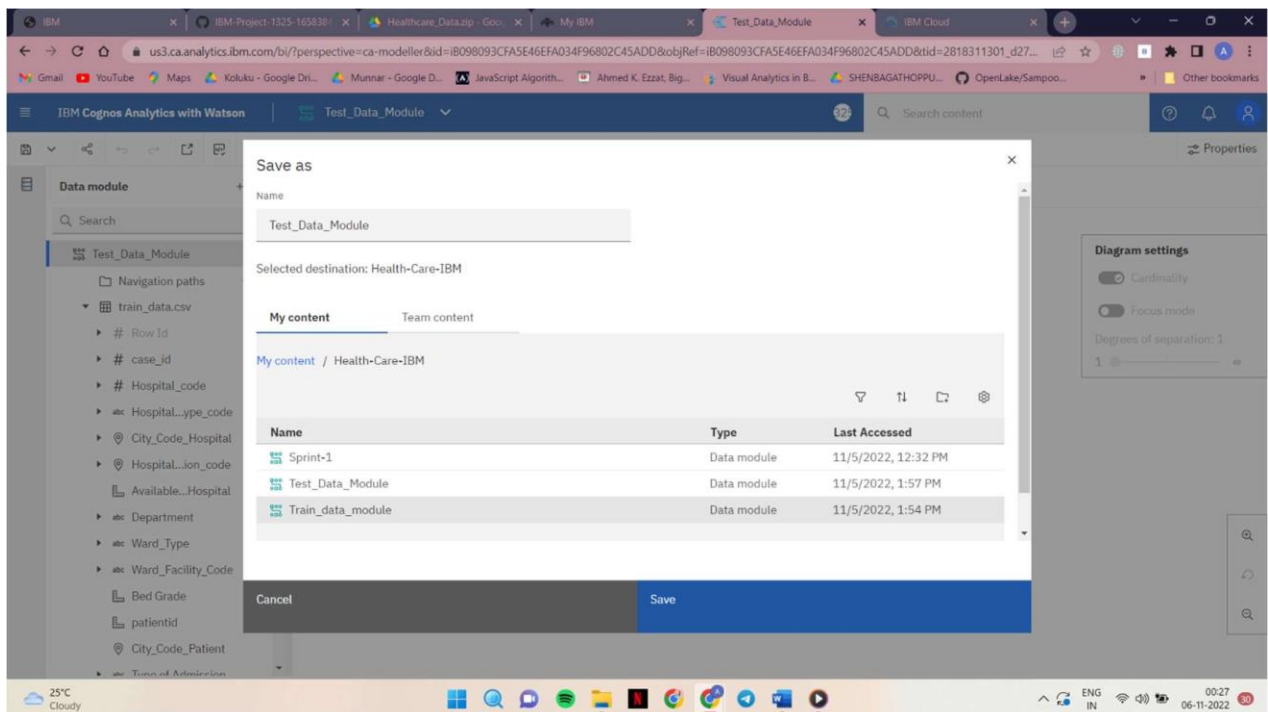
### Analytics:USN-3:

- As an Analyst I will also correct the raw data and create a data module.
- I will Create the data module using test\_data.csv dataset first.





- Then I will Create the data module using train\_data.csv dataset.



IBM Cognos Analytics with Watson | Test\_Data\_Module

Search content

Properties

Data module

Search

Test\_Data\_Module

- Navigation paths
- train\_data.csv
  - # Row Id
  - # case\_id
  - # Hospital\_code
  - Hospital...ype\_code
  - City\_Code\_Hospital
  - Hospital...ion\_code
  - Available...Hospital
  - Department
  - Ward\_Type
  - Ward\_Facility\_Code
  - Bed Grade
  - patientid
  - City\_Code\_Patient
  - Turn of Admission

Grid Relationships Custom tables

Preview data

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

25°C Cloudy

00:28 06-11-2022

IBM Cognos Analytics with Watson | Test\_Data\_Module

Search content

Properties

Data module

Search

Test\_Data\_Module

- Navigation paths
- train\_data.csv
  - # Row Id
  - # case\_id
  - # Hospital\_code
  - Hospital...ype\_code
  - City\_Code\_Hospital
  - Hospital...ion\_code
  - Available...Hospital
  - Department
  - Ward\_Type
  - Ward\_Facility\_Code
  - Bed Grade
  - patientid
  - City\_Code\_Patient
  - Turn of Admission

Grid Relationships Custom tables

train\_data.csv

Diagram settings

- Cardinality
- Focus mode
- Degrees of separation: 1

00:27 06-11-2022