

# Project Development Phase

## Delivery of Sprint-1

Date	31 OCT 2022
Team ID	PNT2022TMID54193
Project Name	Analytics for Hospitals' Health-Care Data

## Project Development Phase:

### Sprint-1:

- Data Collection
- Data Preparation

### Sprint-2:

- Data Exploration

### Sprint-3:

- Dashboard Creation

### Sprint-4:

- Report Creation
- Story Creation

# ANALYTICS FOR HOSPITAL HEALTHCARE

## TEAM MEMBERS:

Team lead-Tamilselvi

Team member 1-Nitha

Team member 2-Selvendran

Team member 3-Mushraf

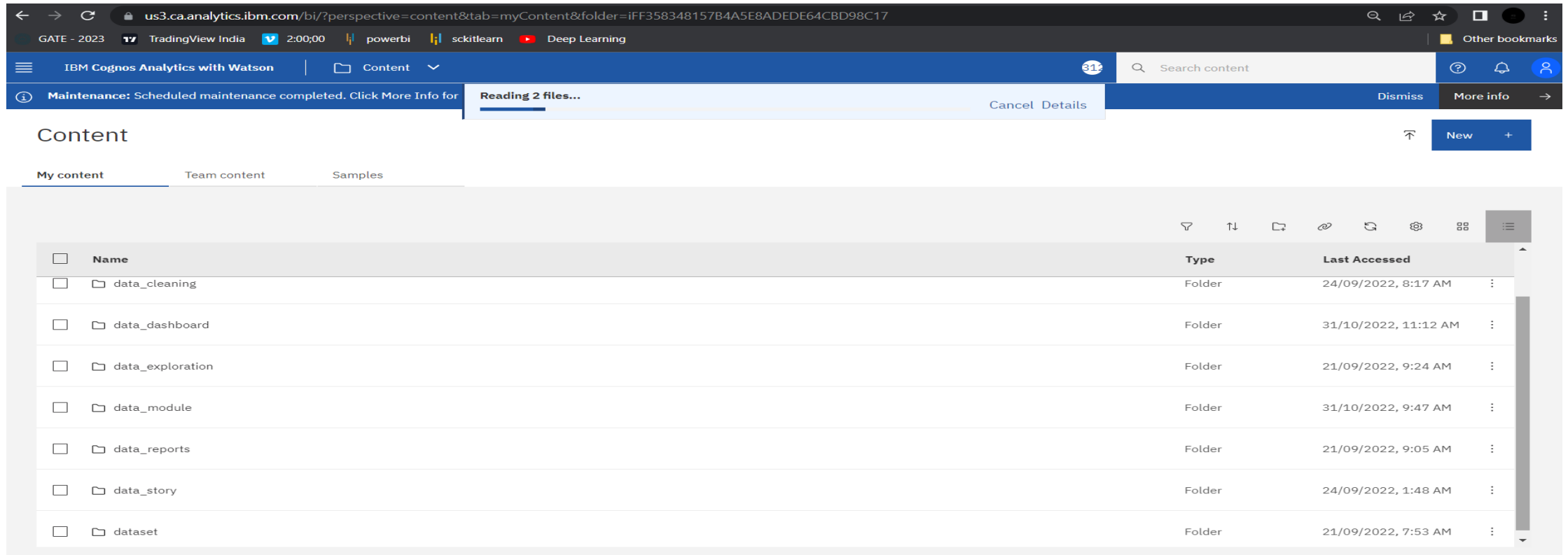
# Sprint-1:

**Data Collection:** Download the Dataset Dataset link :

[https://drive.google.com/drive/folders/1qozDgfVw04hGS8Di\\_SFhUNdUKUdjkhRT?usp=sharing](https://drive.google.com/drive/folders/1qozDgfVw04hGS8Di_SFhUNdUKUdjkhRT?usp=sharing)

**Load the Dataset:**

**Tool used:** IBM Cognos Analytics



The screenshot displays the IBM Cognos Analytics web interface. The browser address bar shows the URL: `us3.ca.analytics.ibm.com/bi/?perspective=content&tab=myContent&folder=iFF358348157B4A5E8ADEDE64CBD98C17`. The page header includes the IBM Cognos Analytics logo and a search bar. A notification banner at the top states: "Maintenance: Scheduled maintenance completed. Click More Info for". Below this, a status bar indicates "Reading 2 files..." with "Cancel" and "Details" buttons. The main content area is titled "Content" and features tabs for "My content", "Team content", and "Samples". A table lists the contents of the "My content" folder, showing folders named "data\_cleaning", "data\_dashboard", "data\_exploration", "data\_module", "data\_reports", "data\_story", and "dataset". Each row includes a checkbox, the folder name, its type (Folder), and the last accessed date and time.

<input type="checkbox"/>	Name	Type	Last Accessed
<input type="checkbox"/>	data_cleaning	Folder	24/09/2022, 8:17 AM
<input type="checkbox"/>	data_dashboard	Folder	31/10/2022, 11:12 AM
<input type="checkbox"/>	data_exploration	Folder	21/09/2022, 9:24 AM
<input type="checkbox"/>	data_module	Folder	31/10/2022, 9:47 AM
<input type="checkbox"/>	data_reports	Folder	21/09/2022, 9:05 AM
<input type="checkbox"/>	data_story	Folder	24/09/2022, 1:48 AM
<input type="checkbox"/>	dataset	Folder	21/09/2022, 7:53 AM

# Data Preparation:

## Prepare the Dataset

IBM Cognos Analytics with Watson

hospital\_care\_data

312

Search content

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Properties

Data module

🔍 Search

📁 hospital\_care\_data

📁 Navigation paths

▶ 📄 train\_data.csv

▶ 📄 test\_data.csv

Grid

Relationships

Custom tables

↑↓	Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available E...in Hospital	Department
	1	1	8	c	3	Z	3	radiotherapy
	2	2	2	c	5	Z	2	radiotherapy
	3	3	10	e	1	X	2	anesthesia
	4	4	26	b	2	Y	2	radiotherapy
	5	5	26	b	2	Y	2	radiotherapy
	6	6	23	a	6	X	2	anesthesia
	7	7	32	f	9	Y	1	radiotherapy
	8	8	23	a	6	X	4	radiotherapy
	9	9	1	d	10	Y	2	gynecology
	10	10	10	e	1	X	2	gynecology
	11	11	22	g	9	Y	2	radiotherapy
	12	12	26	b	2	Y	4	radiotherapy
	13	13	16	c	3	Z	2	radiotherapy
	14	14	9	d	5	Z	3	radiotherapy
	15	15	6	a	6	X	4	gynecology
	16	16	6	a	6	X	3	gynecology

# Null Values Cleaning Process :

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Edit calculation

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Name

City\_Code\_Patient

Components

Expression

24

🔍 Search

between

case

contains

currentMeasure

default

distinct

else

end

ends with

escape

for

for all

for any

```
1 IF ( City_Code_Patient is missing )
2 THEN ( median (City_Code_Patient ))
3 ELSE ( City_Code_Patient )
```

Validation Results

×

✓ The expression is valid.

Cancel

OK

test\_data.csv

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Search content

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Edit calculation

NameBed Grade

Components

Expression

🔍 Search

▶ Operators

▶ Summaries

▶ Constants

▼ Constructs

# if then else

# in\_range

# search case

# simple case

▶ Business Dat...e Functions

▶ Period Predicates

▶ Vendor Specific Functions

▶ Common Functions

▶ Macro Functions

1 IF ( Bed\_Grade is missing)

2 THEN (median (Bed\_Grade))

3 ELSE(Bed\_Grade )

Validate

Validation Results

✔ The expression is valid.

Cancel

OK

Data module

Search

train\_data.csv

# Row Id

# case\_id

# Hospital\_code

abc Hospital...pe\_code

📍 City\_Cod...Hospital

📍 Hospital...ion\_code

📄 Available...Hospital

abc Department

abc Ward\_Type

abc Ward\_Fa...ty\_Code

📄 Bed Grade

📄 patientid

📍 City\_Code\_Patient

abc Type of Admission

abc Severity of Illness

📄 Visitors ...h Patient

abc Age

📄 Admissio...Deposit

abc Stay

test\_data.csv

Grid

Relationships

Custom tables

ent	Ward_Type	Ward_Facility_Code	Bed Grade	patientid	City_Code_Patient	Type of Admission	Severity of Illness	Vis
apy	R	F	2	31397	7	Emergency	Extreme	
apy	S	F	2	31397	7	Trauma	Extreme	
ia	S	E	2	31397	7	Trauma	Extreme	
apy	R	D	2	31397	7	Trauma	Extreme	
apy	S	D	2	31397	7	Trauma	Extreme	
ia	S	F	2	31397	7	Trauma	Extreme	
apy	S	B	3	31397	7	Emergency	Extreme	
apy	Q	F	3	31397	7	Trauma	Extreme	
zy	R	B	4	31397	7	Trauma	Extreme	
zy	S	E	3	31397	7	Trauma	Extreme	
apy	S	B	2	31397	7	Urgent	Extreme	
apy	R	D	1	31397	7	Urgent	Extreme	
apy	R	A	3	31397	7	Emergency	Extreme	
apy	S	F	3	31397	7	Urgent	Extreme	
zy	Q	F	3	63418	8	Emergency	Extreme	
zy	Q	F	3	63418	8	Emergency	Extreme	

## Hospital Data :

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hospital\_care\_data

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Properties

Data module

+

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🔍 Search

📄 train\_data.csv

▶ # Row Id

▶ # case\_id

▶ # Hospital\_code

▶ abc Hospital...pe\_code

▶ 📍 City\_Cod...Hospital

▶ 📍 Hospital...ion\_code

📄 Available...Hospital

▶ abc Department

▶ abc Ward\_Type

▶ abc Ward\_Fa...ty\_Code

📄 Bed Grade

📄 patientid

📍 City\_Code\_Patient

▶ abc Type of Admission

▶ abc Severity of Illness

📄 Visitors ...h Patient

▶ abc Age

📄 Admissio...Deposit

▶ abc Stay

📄 test\_data.csv

Grid

Relationships

Custom tables

↕	Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available E...In Hospital	Department
1	1	1	8	c	3	Z	3	radiotherapy
2	2	2	2	c	5	Z	2	radiotherapy
3	3	3	10	e	1	X	2	anesthesia
4	4	4	26	b	2	Y	2	radiotherapy
5	5	5	26	b	2	Y	2	radiotherapy
6	6	6	23	a	6	X	2	anesthesia
7	7	7	32	f	9	Y	1	radiotherapy
8	8	8	23	a	6	X	4	radiotherapy
9	9	9	1	d	10	Y	2	gynecology
10	10	10	10	e	1	X	2	gynecology
11	11	11	22	g	9	Y	2	radiotherapy
12	12	12	26	b	2	Y	4	radiotherapy
13	13	13	16	c	3	Z	2	radiotherapy
14	14	14	9	d	5	Z	3	radiotherapy
15	15	15	6	a	6	X	4	gynecology
16	16	16	6	a	6	X	3	gynecology



↑↓	I Grade	patientid	City_Code_Patient	Type of Admission	Severity of Illness	Visitors with Patient	Age	Admission_Deposit	Stay
		31397	7	Emergency	Extreme	2	51-60	4911	0-10
		31397	7	Trauma	Extreme	2	51-60	5954	41-50
		31397	7	Trauma	Extreme	2	51-60	4745	31-40
		31397	7	Trauma	Extreme	2	51-60	7272	41-50
		31397	7	Trauma	Extreme	2	51-60	5558	41-50
		31397	7	Trauma	Extreme	2	51-60	4449	11-20
		31397	7	Emergency	Extreme	2	51-60	6167	0-10
		31397	7	Trauma	Extreme	2	51-60	5571	41-50
		31397	7	Trauma	Extreme	2	51-60	7223	51-60
		31397	7	Trauma	Extreme	2	51-60	6056	31-40
		31397	7	Urgent	Extreme	2	51-60	5797	21-30
		31397	7	Urgent	Extreme	2	51-60	5993	11-20
		31397	7	Emergency	Extreme	2	51-60	5141	0-10
		31397	7	Urgent	Extreme	2	51-60	8477	21-30
		63418	8	Emergency	Extreme	2	71-80	2685	0-10
		63418	8	Emergency	Extreme	2	71-80	9398	0-10

# Prepared data link :

[https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my\\_folders%2Fdata\\_module%2Fhospital\\_care\\_data](https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2Fdata_module%2Fhospital_care_data)

