

# Project Development Phase

## Delivery of Sprint-1

Date	29 OCT 2022
Team ID	PNT2022TMID39750
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'S HEALTH – CARE DATA

## PROJECT CONTRIBUTORS

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TEAM ID : PNT2022TMID39750

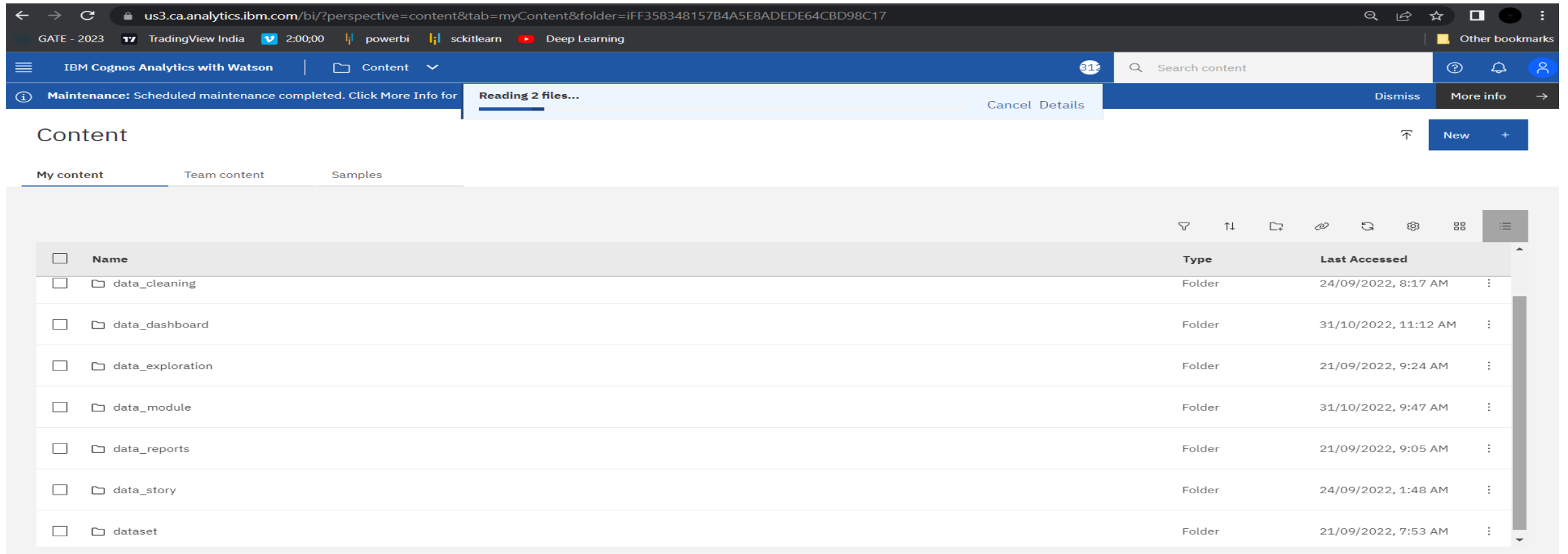
# Sprint-1:

**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 text "IBM Cognos Analytics with Watson" and a "Content" dropdown menu. A notification banner at the top states: "Maintenance: Scheduled maintenance completed. Click More Info for". A progress 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". Below the tabs is a table listing folders. The table has columns for "Name", "Type", and "Last Accessed". The folders listed are: data\_cleaning, data\_dashboard, data\_exploration, data\_module, data\_reports, data\_story, and dataset. Each folder entry includes a checkbox, a folder icon, the name, the type (Folder), and the last accessed date and time. A "New +" button is located in the top right corner of the content area.

<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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hospital\_care\_data

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Edit calculation

NameCity\_Code\_Patient

Components

Search

between  
case  
contains  
currentMeasure  
default  
distinct  
else  
end  
ends with  
escape  
for  
for all  
for any

Expression

```
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

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hospital\_care\_data

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Search content

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ies

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Edit calculation

✖

Name

Bed Grade

Components

Expression

24

⌵

🔍 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

test\_data.csv



# 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	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



Data ...dule

Search

tr...sv

# R...

# C...

# H...

abc H...

C...

H...

A...

abc D...

abc ...

abc ...

B...

p...

C...

abc T...

abc S...

V...

abc Age

A...

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te...sv

Grid

Relationships

Custom tables

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)

