

# PROJECT DEVELOPMENT PHASE

## SPRINT DELIVERY -1

**TEAM ID : PNT2022TMID03446**

**BATCH NO : B2-2M4E**

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

**DATE : 29 OCT 2022**



The background features a light blue gradient with various medical icons scattered around. These include a pink and white thermometer showing 36.7, a blister pack of pink and white capsules, several individual capsules in pink, white, and blue, and a pink clipboard with a green stethoscope resting on it. Small pink plus signs are also visible.

# **ANALYTICS FOR HOSPITAL'S** **HEALTH - CARE DATA**

PROJECT CONTRIBUTORS

Mythili P  
Kousalya R  
Lalitha parameswari C  
Dhivya Lakshmi S

Team ID:PNT2022TMID03446

# Project Development Phase

<b>Sprint-1:</b> <ul style="list-style-type: none"><li>✓ Data Collection</li><li>✓ Loading of data</li><li>✓ Data Preparation</li></ul>	<b>Sprint-3:</b> <ul style="list-style-type: none"><li>✓ Dashboard Creation</li></ul>
<b>Sprint-2:</b> <ul style="list-style-type: none"><li>✓ Data Exploration</li><li>✓ Data Visualization</li></ul>	<b>Sprint-4:</b> <ul style="list-style-type: none"><li>✓ Report Creation</li><li>✓ Story Creation</li></ul>

## 1.HOSPITAL DATASET LINK:

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

## .2.UNDERSTANDING THE DATA

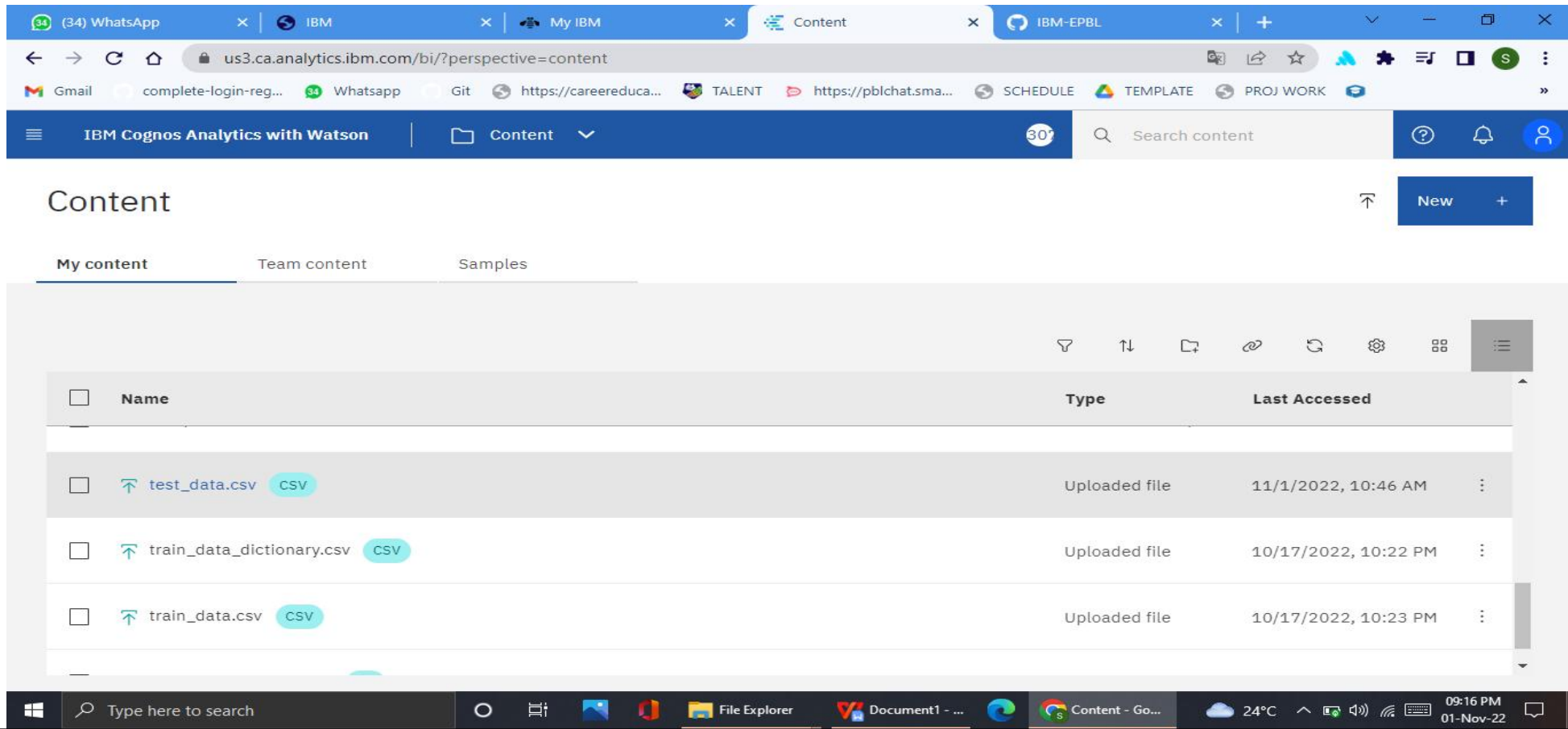
This project is based on understanding the Health Analytics dataset .  
The data is spread across 3 data files (csv) and one data dictionary enclosed.

- 1.Test\_data.csv
- 2.Sample\_sub.csv
- 3.Train\_data\_dictionary.csv
- 4.Train\_data.csv

The primary data file we use is test\_data.csv consist of 17 Columns with 137057 Rows.

### 3. LOADING OF DATA

- Connect the data to IBM Cognos.
- Cognos supports connecting to a wide variety of data, stored in a variety of places.
- Loading of the data set in IBM Cognos is important for analyzing.



The screenshot displays the IBM Cognos Analytics interface, specifically the 'Content' perspective. The browser address bar shows the URL `us3.ca.analytics.ibm.com/bi/?perspective=content`. The page header includes the text 'IBM Cognos Analytics with Watson' and a search bar labeled 'Search content'. Below the header, there are tabs for 'My content', 'Team content', and 'Samples', with 'My content' being the active tab. A 'New' button is visible in the top right corner. The main content area shows a list of files with columns for 'Name', 'Type', and 'Last Accessed'. The files listed are 'test\_data.csv', 'train\_data\_dictionary.csv', and 'train\_data.csv', all of which are 'Uploaded file' types. Each file entry includes a checkbox, an upload icon, the file name, a 'CSV' label, and a three-dot menu icon.

Name	Type	Last Accessed
<input type="checkbox"/> <a href="#">test_data.csv</a> CSV	Uploaded file	11/1/2022, 10:46 AM
<input type="checkbox"/> <a href="#">train_data_dictionary.csv</a> CSV	Uploaded file	10/17/2022, 10:22 PM
<input type="checkbox"/> <a href="#">train_data.csv</a> CSV	Uploaded file	10/17/2022, 10:23 PM



# DATASET PREPARATION

IBM Cognos Analytics with Watson

\* New data module

304

Search content

?

🔔

👤

📄

✓

🔗

↶

↷

📄

📄

Properties

Data module

+

🕒

🔍 Search

📄 New data module

📁 Navigation paths

📄 test\_data.csv

▶ # Row Id

▶ # case\_id

▶ # Hospital\_code

▶ abc Hospital...pe\_code

▶ 📍 City\_Code\_Hospital

▶ 📍 Hospital...ion\_code

▶ 📄 Available...Hospital

▶ abc Department

▶ abc Ward\_Type

▶ abc Ward\_Fa...ty\_Code

▶ 📄 Bed Grade

📄 Grid

🔗 Relationships

📄 Custom tables

↕	Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code
	1	318439	21	c	3	Z
	2	318440	29	a	4	X
	3	318441	26	b	2	Y
	4	318442	6	a	6	X
	5	318443	28	b	11	X
	6	318444	23	a	6	X
	7	318445	26	b	2	Y
	8	318446	25	e	1	X
	9	318447	23	a	6	X
	10	318448	23	a	6	X
	11	318449	10	e	1	X

# DATA PREPARATION

The screenshot displays the IBM Analytics web interface. At the top, a browser window shows the URL `us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=i69959F2C568449BC95AE44A87F892EB6&objRef=i69959F2C568...`. The main workspace is divided into three sections:

- Components:** A sidebar on the left containing a search bar and a tree view under "SPRINT 1". The tree includes "test\_dat...Join (1)", "sample\_sub.csv", and "test\_data.csv". Under "test\_data.csv", there are several fields: "# Row Id", "# case\_id", "# Hosp...code", "abc Hosp...code", "City\_...pital", "Hosp...code", and "Availab...ospital".
- Expression:** A central text area containing a conditional expression:

```
1 IF (test_data_csv.City_Code_Patient is missing )
2 THEN (median(test_data_csv.City_Code_Patient))
3 ELSE(test_data_csv.City_Code_Patient)
4
```
- Validation Results:** A panel at the bottom right showing a green checkmark and the message "The expression is valid."

At the bottom of the interface, there is a checkbox labeled "Calculate after aggregation" which is checked. To the right of this checkbox are two buttons: "Cancel" and "OK". The bottom of the screen shows a Windows taskbar with the search bar, task view button, and several open applications including IBM and SPRINT 1.pptx.

IBM Cognos Analytics with Watson

SPRINT 1

304

Search content

?

Create calculation

Name

Calculation name

Components

Expression

Search

SPRINT 1

test\_data....- Join (1)

sample\_sub.csv

test\_data.csv

train\_data.csv

1 IF (test\_data\_csv.Bed\_Grade is missing )

2 THEN (median(test\_data\_csv.Bed\_Grade))

3 ELSE(test\_data\_csv.Bed\_Grade)

4

Validation Results

✓ The expression is valid.

Validate



# Replacing NULL into values

IBM Cognos Analytics with Watson

\* SPRINT 1

304

Search content

Properties

Data module

Search

- 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
- Admission\_Deposit
- train\_data.csv

Grid Relationships Custom tables

artment	Ward_Type	Ward_Facility_Code	Bed Grade	patientid	City_Code_Patient
ecology	R	F	2	17006	2
ecology	Q	F	2	17006	2
ecology	Q	D	2	17006	2
ecology	S	E	3	95946	7
ecology	Q	F	3	95946	7
ecology	Q	F	4	95946	7
ecology	Q	E	2	95946	7
ecology	R	F	3	95946	7
ecology	R	A	3	95946	7
ecology	R	F	4	95946	7
ecology	S	C	2	10728	8

IBM Cognos Analytics with Watson

SPRINT 1

304

Search content

?

🔔

👤

📄

🔗

↶

↷

📄

📄

Properties

Data module

🔍 Search

📍 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

📄 Admission\_Deposit

▼ 📄 train\_data.csv

Grid

Relationships

Custom tables

↕	Ward_Type	Ward_Facility_Code	Bed Grade	patientid	City_Code_Patient	Type of
	S	A	2	17006	2	Emerge
	S	F	2	17006	2	Trauma
	Q	D	4	17006	2	Emerge
	Q	F	2	17006	2	Trauma
	R	F	2	17006	2	Trauma
	Q	F	2	17006	2	Trauma
	Q	D	2	17006	2	Trauma
	S	E	3	95946	7	Emerge
	Q	F	3	95946	7	Trauma
	Q	F	4	95946	7	Urgent
	Q	F	2	95946	7	Trauma

## PREPARED DATA LINK

[https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my\\_folders%2FSPRINT%2B1](https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2FSPRINT%2B1)

