

# Project Development Phase

## Delivery of Sprint-1

<b>Date</b>	<b><i>29 OCT 2022</i></b>
<b>Team ID</b>	<b><i>PNT2022TMID39833</i></b>
<b>Project Name</b>	<b>Analytics for Hospital's Health-Care Data</b>

### Project Development Phase:

#### **Sprint-1:**

- *Data collection*
- *Data preparation*

#### **Sprint-2:**

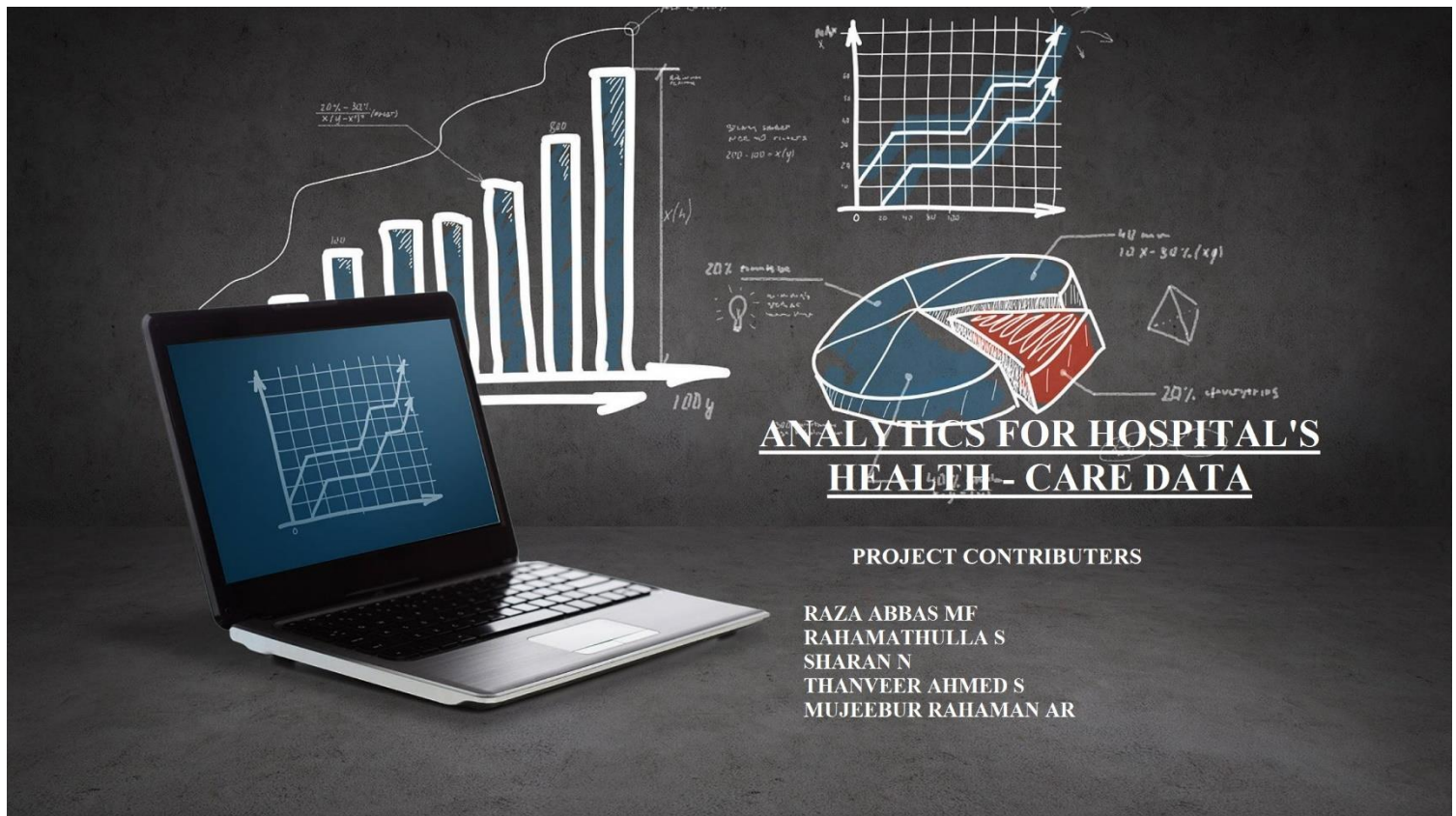
- Data Exploration

#### **Sprint-3:**

- *Dashboard Creation*

#### **Sprint-4:**

- Report Creation
- Story Creation



**TEAM ID: PNT2022TMID39833**

# SPRINT-1:

## Load the Dataset:

### Tool used: IBM Cognos Analytics

The screenshot displays the IBM Cognos Analytics web application interface. At the top, a browser window shows the URL `https://us1.ca.analytics.ibm.com/bi/?perspective=home`. The application header includes the text "IBM Cognos Analytics with Watson", a tab indicator showing "3 items open", a search bar, and a "Not syncing" status. A file upload progress bar is visible at the top, indicating "Reading test\_data.csv..." with "Cancel" and "Details" options. The main content area features a welcome message: "Hello. Welcome to Cognos Analytics with Watson." Below this, it suggests getting started by watching an introduction video, taking a product tour, or viewing the Getting Started tab. Two buttons are provided: "Watch video" and "Take a product tour". To the right is a large graphic of blue cubes. Below the main content, a "Quick launch" section contains four tiles: "Upload data" (with an upload icon), "Prepare data" (with a data module icon), "Exploration" (with a magnifying glass icon), and "Present data" (with a dashboard icon). Each tile includes a brief description of its function. At the bottom, a navigation bar shows "Get started" and "Recent" tabs, with "Get started" being the active tab. The footer text reads "Get up and running in IBM Cognos Analytics".

# Data Preparation:

## Prepare the Dataset

The screenshot displays the IBM Cognos Analytics web interface. The browser address bar shows a URL from `https://us1.ca.analytics.ibm.com`. The application header includes the text "IBM Cognos Analytics with Watson" and a search bar. The left sidebar, titled "Data module", contains a search bar and a tree view of the data structure. The main area shows a "Grid" view of a dataset with 20 rows and 10 columns. The columns are: Row Id, case\_id, Hospital\_code, Hospital\_type\_code, City\_Code\_Hospital, Hospital\_region\_code, Available E...in Hospital, Department, and Ward\_Type. The data includes various hospital codes, types, and departments like radiotherapy, anesthesia, and gynecology.

Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available E...in Hospital	Department	Ward_Type
1	1	8	c	3	Z	3	radiotherapy	R
2	2	2	c	5	Z	2	radiotherapy	S
3	3	10	e	1	X	2	anesthesia	S
4	4	26	b	2	Y	2	radiotherapy	R
5	5	26	b	2	Y	2	radiotherapy	S
6	6	23	a	6	X	2	anesthesia	S
7	7	32	f	9	Y	1	radiotherapy	S
8	8	23	a	6	X	4	radiotherapy	Q
9	9	1	d	10	Y	2	gynecology	R
10	10	10	e	1	X	2	gynecology	S
11	11	22	g	9	Y	2	radiotherapy	S
12	12	26	b	2	Y	4	radiotherapy	R
13	13	16	c	3	Z	2	radiotherapy	R
14	14	9	d	5	Z	3	radiotherapy	S
15	15	6	a	6	X	4	gynecology	Q
16	16	6	a	6	X	3	gynecology	Q
17	17	23	a	6	X	4	radiotherapy	Q
18	18	29	a	4	X	4	anesthesia	S
19	19	32	f	9	Y	4	radiotherapy	S
20	20	12	c	8	Y	4	radiotherapy	R

# Null Values Cleaning Process :

The screenshot shows the 'Create calculation' dialog in IBM Cognos Analytics. The 'Name' field is set to 'City'. The 'Expression' field contains the following SQL-like code:

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

The 'Components' panel on the left lists various functions, with 'Constants' currently selected. Below the expression editor, the 'Validation Results' section shows a green checkmark and the message: 'The expression is valid.'

My IBM

\* Hospital\_Care\_Data2

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https://us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=i5B68F0C7902B4C63A524B8DD6A784DC28objRef=i5B68F0C7902B4C63A524B8DD6A784DC2...

IBM Cognos Analytics with Watson

\* Hospital\_Care\_Data2

30%

Search content

Not syncing

Create calculation

NameBed Grade

Components

Expression

24

Search

Operators

Summaries

Constants

Constructs

if then else

in\_range

search case

simple case

Business Date 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)

Validation Results

✓ The expression is valid.

☐ Calculate after aggregation

Cancel

OK

Show desktop

Windows Taskbar

System Tray

The screenshot displays the IBM Cognos Analytics interface. On the left, the 'Data module' sidebar shows the navigation paths for the 'train\_data.csv' file. The main area shows a table view of the data. The table has 20 rows and 9 columns. The columns are: Row Id, case\_id, Hospital\_code, Hospital\_type\_code, City\_Code\_Hospital, Hospital\_region\_code, Available E...in Hospital, Department, and Ward\_Type. The data is sorted by Row Id in ascending order.

Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available E...in Hospital	Department	Ward_Type
1	1	8	c	3	Z	3	radiotherapy	R
2	2	2	c	5	Z	2	radiotherapy	S
3	3	10	e	1	X	2	anesthesia	S
4	4	26	b	2	Y	2	radiotherapy	R
5	5	26	b	2	Y	2	radiotherapy	S
6	6	23	a	6	X	2	anesthesia	S
7	7	32	f	9	Y	1	radiotherapy	S
8	8	23	a	6	X	4	radiotherapy	Q
9	9	1	d	10	Y	2	gynecology	R
10	10	10	e	1	X	2	gynecology	S
11	11	22	g	9	Y	2	radiotherapy	S
12	12	26	b	2	Y	4	radiotherapy	R
13	13	16	c	3	Z	2	radiotherapy	R
14	14	9	d	5	Z	3	radiotherapy	S
15	15	6	a	6	X	4	gynecology	Q
16	16	6	a	6	X	3	gynecology	Q
17	17	23	a	6	X	4	radiotherapy	Q
18	18	29	a	4	X	4	anesthesia	S
19	19	32	f	9	Y	4	radiotherapy	S
20	20	17	c	9	Y	4	radiotherapy	Q

### Hospital Data:

The screenshot displays the IBM Cognos Analytics web application. The top navigation bar includes the IBM logo, user profile, and search functionality. The main workspace shows a data module named "test\_data.csv" under the "Data module" section. The left sidebar lists various data sources and fields, including "New data module", "Navigation paths", and "test\_data.csv". The central area displays a grid view of the data, showing columns such as "Row Id", "case\_id", "Hospital\_code", "Hospital\_type\_code", "City\_Code\_Hospital", "Hospital\_region\_code", "Available E...in Hospital", and "Department". The data rows show patient information across 17 rows.

↑↓	Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available E...in Hospital	Department
	1	318439	21	c	3	Z	3	gynecology
	2	318440	29	a	4	X	2	gynecology
	3	318441	26	b	2	Y	3	gynecology
	4	318442	6	a	6	X	3	gynecology
	5	318443	28	b	11	X	2	gynecology
	6	318444	23	a	6	X	3	gynecology
	7	318445	26	b	2	Y	2	gynecology
	8	318446	25	e	1	X	4	gynecology
	9	318447	23	a	6	X	4	gynecology
	10	318448	23	a	6	X	3	gynecology
	11	318449	10	e	1	X	4	gynecology
	12	318450	4	a	4	X	3	gynecology
	13	318451	16	c	3	Z	4	gynecology
	14	318452	28	b	11	X	3	gynecology
	15	318453	19	a	7	Y	1	gynecology
	16	318454	26	b	2	Y	5	gynecology
	17	318455	19	a	7	Y	2	gynecology



My IBM

\* New data module

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https://us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=1074720901\_47706e8da6ff401f8ddbe2081e6d31c0\_sessionTemp&objRef=&tid=1074720901\_4...

Not syncing

IBM Cognos Analytics with Watson

\* New data module

Search content

?

1

Properties

+

?

Grid

Relationships

Custom tables

tid

City\_Code\_Patient

Type of Admission

Severity of Illness

Visitors with Patient

Age

Admission\_Deposit

2

Emergency

Moderate

2

71-80

3095

2

Trauma

Moderate

4

71-80

4018

2

Emergency

Moderate

3

71-80

4492

2

Trauma

Moderate

3

71-80

4173

2

Trauma

Moderate

4

71-80

4161

2

Trauma

Moderate

2

71-80

4659

2

Trauma

Moderate

2

71-80

4167

Null

Emergency

Moderate

2

31-40

4396

Null

Trauma

Moderate

2

31-40

4088

Null

Urgent

Moderate

2

31-40

3925

Null

Trauma

Moderate

2

31-40

4241

Null

Emergency

Moderate

6

31-40

3468

Null

Trauma

Moderate

3

31-40

4322

Null

Urgent

Moderate

2

31-40

4315

8

Emergency

Moderate

4

51-60

3288

8

Emergency

Moderate

4

51-60

6818

8

Emergency

Moderate

2

51-60

3410

Search

New data module

Navigation paths

test\_data.csv

# Row Id

# case\_id

# Hospital\_code

abc Hospital\_type\_code

City\_Code\_Hospital

Hospital\_region\_code

Available Extra Rooms in Hospital

abc Department

abc Ward\_Type

abc Ward\_Facility\_Code

Bed Grade

patientid

City\_Code\_Patient

abc Type of Admission

abc Severity of Illness

Visitors with Patient

abc Age

Admission\_Deposit

## Prepared Data Link:

[https://us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my\\_folders%2FHospital\\_Care\\_Data](https://us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2FHospital_Care_Data)

