

# PROJECT DEVELOPMENT PHASE

## SPRINT DELIVERY -1

**TEAM ID : PNT2022TMID28169**

**BATCH NO : B1-1M3E**

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

**DATE : 29 OCT 2022**



# 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.HOSP TAL DATASET L NK

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

## .2.UNDERSTANDING THE DATA

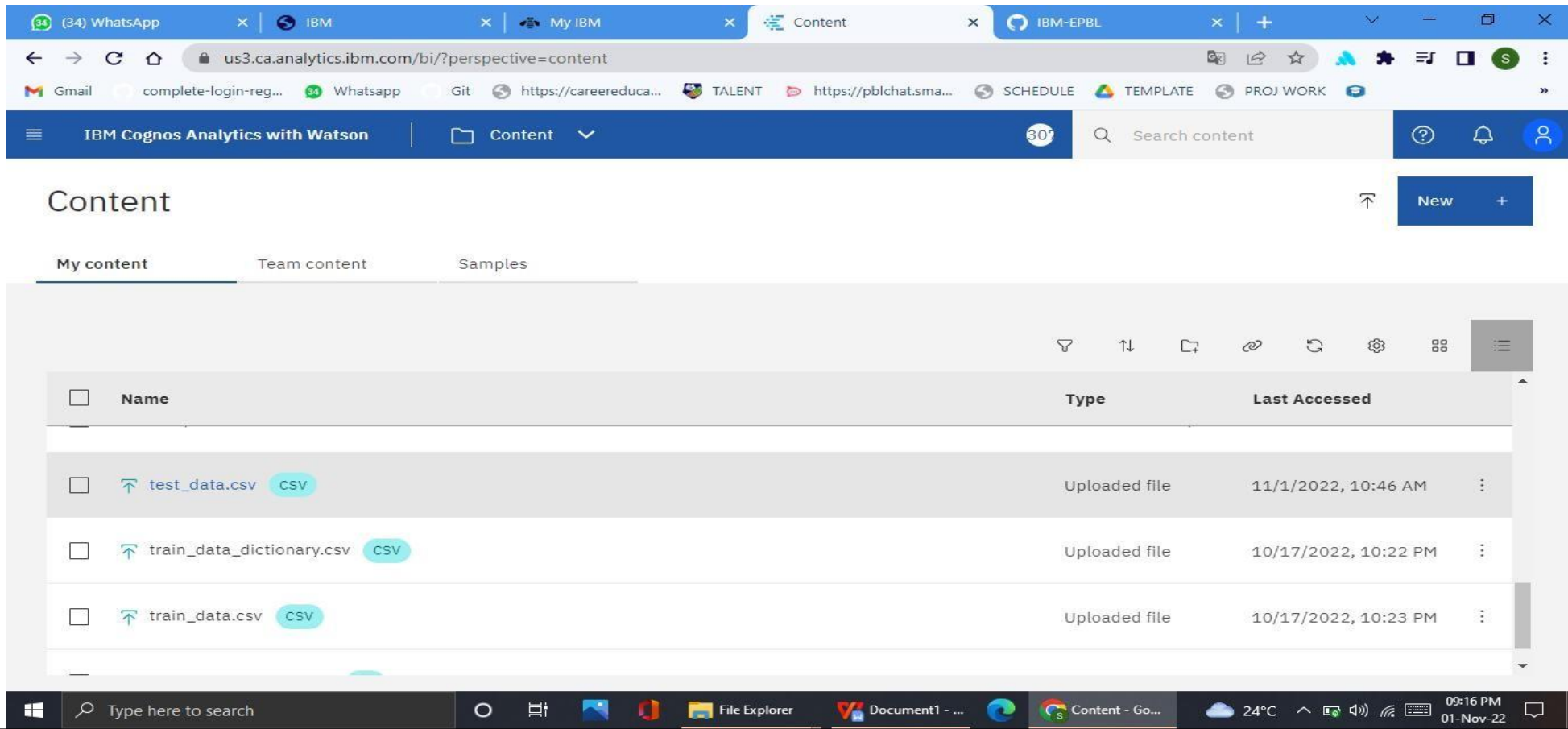
This project is based on understanding the Health Analytics dataset .  
The data is spread across 3 data files (csv) and one data dictionary enclosed.

- 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 IBM Cognos Analytics with Watson logo, a 'Content' dropdown menu, a search bar, and user profile icons. The main content area is titled 'Content' and features a 'New' button. Below the title, there are tabs for 'My content', 'Team content', and 'Samples'. A table lists the content items, with columns for 'Name', 'Type', and 'Last Accessed'. The table contains three entries, all of which are CSV files uploaded as 'Uploaded file' types.

| 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...`. Below the browser, the application window has a header with a search bar and a list of components. The main area is divided into two panes: 'Components' on the left and 'Expression' on the right. The 'Components' pane shows a tree structure under 'SPRINT 1' with items like 'test\_dat...Join (1)', 'sample\_sub.csv', and 'test\_data.csv'. The 'Expression' pane contains a code editor with the following SQL-like 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
```

Below the code editor, a 'Validation Results' section shows a green checkmark and the text 'The expression is valid.' At the bottom of the window, there is a checkbox labeled 'Calculate after aggregation' which is checked, and two buttons: 'Cancel' and 'OK'. The Windows taskbar at the very bottom shows the time as 11:55 AM on 04-Nov-22.



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

Validate

Validation Results

✔ The expression is valid.

# Replacing NULL into values

IBM Cognos Analytics with Watson | \* SPRINT 1 | 304 | Search content | ? | Bell | User

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                 |

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



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

|  | 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

