

# Project Development Phase

## Delivery of Sprint-1

|             |   |
|-------------|---|
| Date        | 24 OCT 2022                               |
| TeamID      | PNT2022TMID51381                          |
| ProjectName | Analytics for Hospitals' Health-Care Data |

### Project Development Phase:

#### Sprint-1:

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

##### Sprint-1:

- Data Collection
- Data Preparation

##### Sprint-2:

- Data Exploration

##### Sprint-3:

- Dashboard Creation

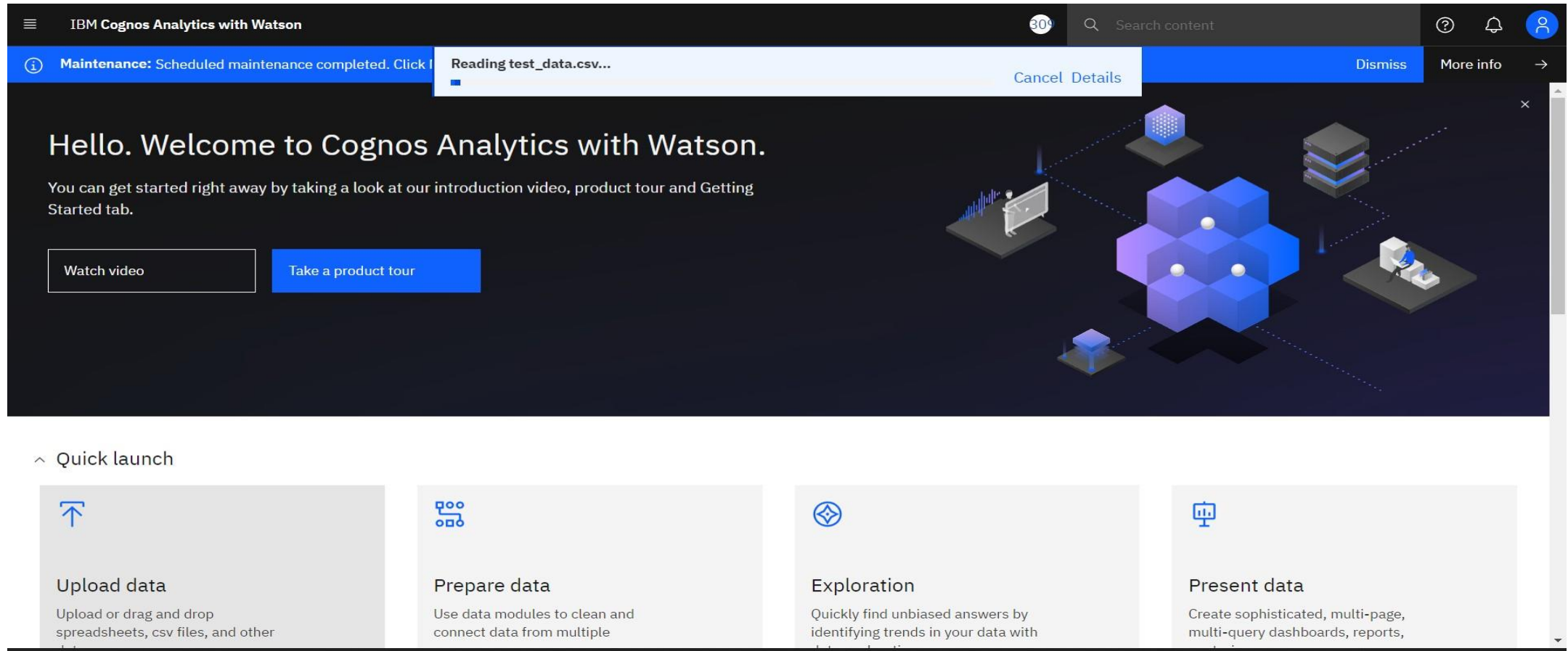
##### Sprint-4:

- Report Creation
- Story Creation

[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



## Data Preparation:

Prepare the Dataset

IBM Cognos Analytics with Watson

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📊 Grid

🔗 Relationships

📊 Custom tables

| ↕ | Row Id | case_id | Hospital_code | Hospital_type_code | City_Code_Hospital | Hospital_region_code | Available E...in Hospital | Depart |
|---|--------|---------|---------------|--------------------|--------------------|----------------------|---------------------------|--------|
|   | 1      | 1       | 8             | c                  | 3                  | Z                    | 3                         | radic  |
|   | 2      | 2       | 2             | c                  | 5                  | Z                    | 2                         | radic  |
|   | 3      | 3       | 10            | e                  | 1                  | X                    | 2                         | anes   |
|   | 4      | 4       | 26            | b                  | 2                  | Y                    | 2                         | radic  |
|   | 5      | 5       | 26            | b                  | 2                  | Y                    | 2                         | radic  |
|   | 6      | 6       | 23            | a                  | 6                  | X                    | 2                         | anes   |
|   | 7      | 7       | 32            | f                  | 9                  | Y                    | 1                         | radic  |
|   | 8      | 8       | 23            | a                  | 6                  | X                    | 4                         | radic  |
|   | 9      | 9       | 1             | d                  | 10                 | Y                    | 2                         | gyne   |
|   | 10     | 10      | 10            | e                  | 1                  | X                    | 2                         | gyne   |
|   | 11     | 11      | 22            | g                  | 9                  | Y                    | 2                         | radic  |
|   | 12     | 12      | 26            | b                  | 2                  | Y                    | 4                         | radic  |
|   | 13     | 13      | 16            | c                  | 3                  | Z                    | 2                         | radic  |

# Null Values Cleaning Process :



## Edit calculation



Name City\_Code\_Patient

## Components

## Expression



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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

IBM Cognos Analytics with Watson

hospital\_care\_data

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Search content

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Edit calculation

Name

Bed 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

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📊 Grid

🔗 Relationships

📊 Custom tables


| ↕ | Department   | Ward_Type | Ward_Facility_Code | Bed Grade | patientid | City_Code_Patient | Type of Admission | Severi |
|---|--------------|-----------|--------------------|-----------|-----------|-------------------|-------------------|--------|
|   | radiotherapy | R         | F                  | 2         | 31397     | 7                 | Emergency         | Extr   |
|   | radiotherapy | S         | F                  | 2         | 31397     | 7                 | Trauma            | Extr   |
|   | anesthesia   | S         | E                  | 2         | 31397     | 7                 | Trauma            | Extr   |
|   | radiotherapy | R         | D                  | 2         | 31397     | 7                 | Trauma            | Extr   |
|   | radiotherapy | S         | D                  | 2         | 31397     | 7                 | Trauma            | Extr   |
|   | anesthesia   | S         | F                  | 2         | 31397     | 7                 | Trauma            | Extr   |
|   | radiotherapy | S         | B                  | 3         | 31397     | 7                 | Emergency         | Extr   |
|   | radiotherapy | Q         | F                  | 3         | 31397     | 7                 | Trauma            | Extr   |
|   | gynecology   | R         | B                  | 4         | 31397     | 7                 | Trauma            | Extr   |
|   | gynecology   | S         | E                  | 3         | 31397     | 7                 | Trauma            | Extr   |
|   | radiotherapy | S         | B                  | 2         | 31397     | 7                 | Urgent            | Extr   |
|   | radiotherapy | R         | D                  | 1         | 31397     | 7                 | Urgent            | Extr   |
|   | radiotherapy | R         | A                  | 3         | 31397     | 7                 | Emergency         | Extr   |


## **Hospital Data :**


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 Grid

 Relationships

 Custom tables

| ↕ | Row Id | case_id | Hospital_code | Hospital_type_code | City_Code_Hospital | Hospital_region_code | Available E...in Hospital | Depart |
|---|--------|---------|---------------|--------------------|--------------------|----------------------|---------------------------|--------|
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|   | 2      | 2       | 2             | c                  | 5                  | Z                    | 2                         | radic  |
|   | 3      | 3       | 10            | e                  | 1                  | X                    | 2                         | anes   |
|   | 4      | 4       | 26            | b                  | 2                  | Y                    | 2                         | radic  |
|   | 5      | 5       | 26            | b                  | 2                  | Y                    | 2                         | radic  |
|   | 6      | 6       | 23            | a                  | 6                  | X                    | 2                         | anes   |
|   | 7      | 7       | 32            | f                  | 9                  | Y                    | 1                         | radic  |
|   | 8      | 8       | 23            | a                  | 6                  | X                    | 4                         | radic  |
|   | 9      | 9       | 1             | d                  | 10                 | Y                    | 2                         | gyne   |
|   | 10     | 10      | 10            | e                  | 1                  | X                    | 2                         | gyne   |
|   | 11     | 11      | 22            | g                  | 9                  | Y                    | 2                         | radic  |
|   | 12     | 12      | 26            | b                  | 2                  | Y                    | 4                         | radic  |
|   | 13     | 13      | 16            | c                  | 3                  | Z                    | 2                         | radic  |



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Relationships

Custom tables

| ↕ | City_Code_Patient | Type of Admission | Severity of Illness | Visitors with Patient | Age   | Admission_Deposit | Stay  |
|---|-------------------|-------------------|---------------------|-----------------------|-------|-------------------|-------|
|   | 7                 | Emergency         | Extreme             | 2                     | 51-60 | 4911              | 0-10  |
|   | 7                 | Trauma            | Extreme             | 2                     | 51-60 | 5954              | 41-50 |
|   | 7                 | Trauma            | Extreme             | 2                     | 51-60 | 4745              | 31-40 |
|   | 7                 | Trauma            | Extreme             | 2                     | 51-60 | 7272              | 41-50 |
|   | 7                 | Trauma            | Extreme             | 2                     | 51-60 | 5558              | 41-50 |
|   | 7                 | Trauma            | Extreme             | 2                     | 51-60 | 4449              | 11-20 |
|   | 7                 | Emergency         | Extreme             | 2                     | 51-60 | 6167              | 0-10  |
|   | 7                 | Trauma            | Extreme             | 2                     | 51-60 | 5571              | 41-50 |
|   | 7                 | Trauma            | Extreme             | 2                     | 51-60 | 7223              | 51-60 |
|   | 7                 | Trauma            | Extreme             | 2                     | 51-60 | 6056              | 31-40 |
|   | 7                 | Urgent            | Extreme             | 2                     | 51-60 | 5797              | 21-30 |
|   | 7                 | Urgent            | Extreme             | 2                     | 51-60 | 5993              | 11-20 |
|   | 7                 | Emergency         | Extreme             | 2                     | 51-60 | 5141              | 0-10  |

## **Prepared data link :**

[https://us1.ca.analytics.ibm.com/bi/?perspective=camodeller&pathRef=.my\\_folders%2Fsprint%2B](https://us1.ca.analytics.ibm.com/bi/?perspective=camodeller&pathRef=.my_folders%2Fsprint%2B)

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