

# Project Development Phase

## Delivery of Sprint-1

Date	<i>18November 2022</i>
Team ID	<i>PNT2022TMID41106</i>
Project Name	<b>Analytics for Hospital's Health-Care Data</b>

### Project Development Phase:

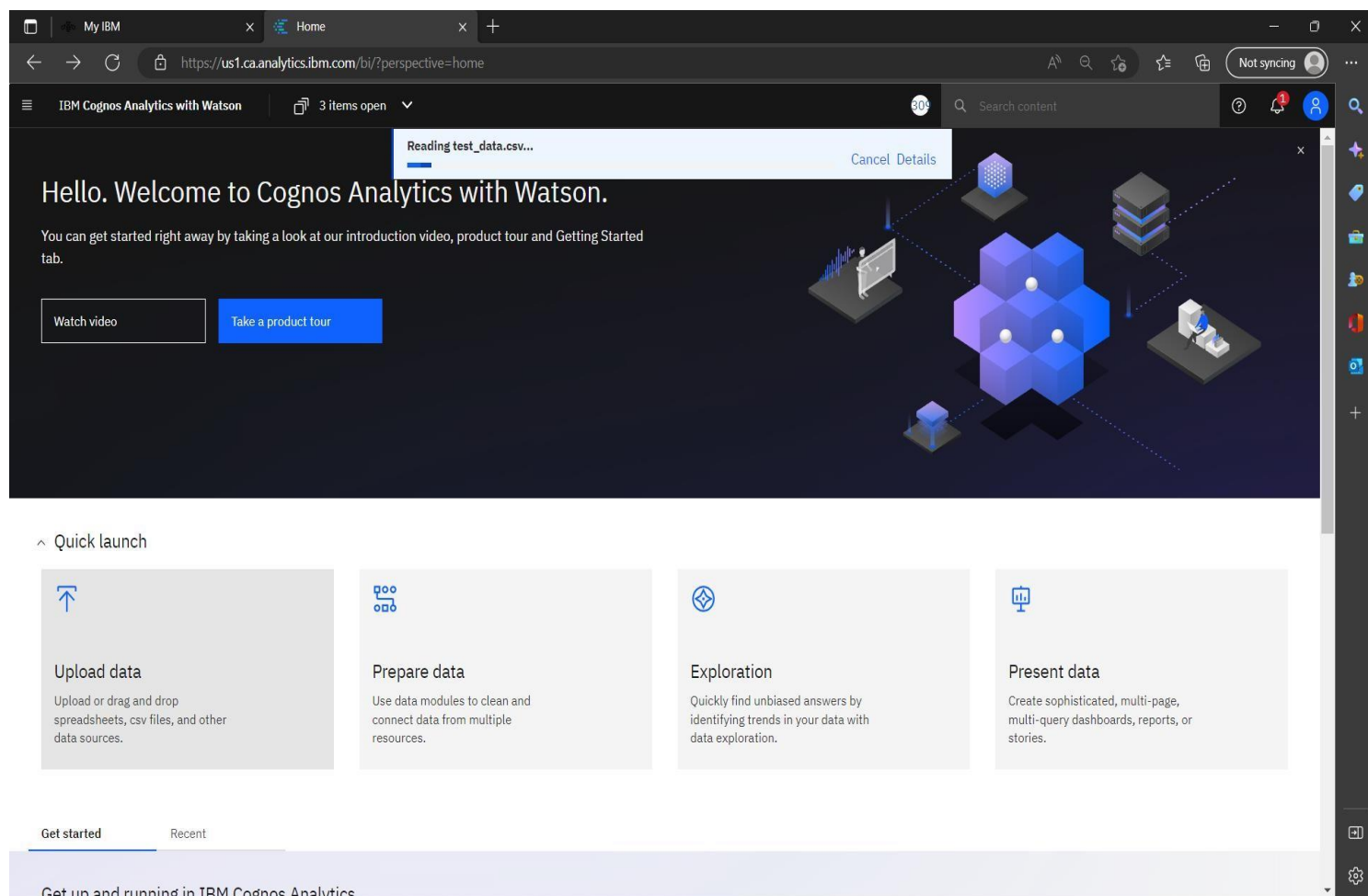
#### Sprint-1:

- *Data collection*
- *Data preparation* **Sprint-2:**
- Data Exploration

#### Sprint-3:

- *Dashboard Creation* **Sprint-4:**
- Report Creation
- Story Creation





# Data Preparation:

## Prepare the Dataset

My IBM | \* New data module | +

https://us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=2736932216\_ef23a343153a4bc880ec6925f3a94ec2\_sessionTemp&objRef=&tid=2736932216\_e... | Not syncing

IBM Cognos Analytics with Watson | \* New data module | Search content

Properties

Data module | +

Search

New data module

Navigation paths

train\_data.csv

# Row Id

# case\_id

# Hospital\_code

Hospital\_type\_code

City\_Code\_Hospital

Hospital\_region\_code

Available ...n Hospital

Department

Ward\_Type

Ward\_Facility\_Code

Bed Grade

patientid

City\_Code\_Patient

Type of Admission

Severity of Illness

Visitors with Patient

Age

Admission\_Deposit

Stay

Grid | Relationships | Custom tables

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	a	9	Y	4	radiotherapy	R

## Null Values Cleaning Process :

My IBM

\* Hospital\_Care\_Data2

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https://us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=i5B68F0C7902B4C63A524B8DD6A784DC2&objRef=i5B68F0C7902B4C63A524B8DD6A784DC2... Not syncing

IBM Cognos Analytics with Watson

\* Hospital\_Care\_Data2

Search content

Create calculation

NameCity

Components

Search

Operators

Summaries

Constants

Constructs

Business Data...e Functions

Period Predicates

Vendor Specific Functions

Common Functions

Macro Functions

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.

My IBM

\* Hospital\_Care\_Data2

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

IBM Cognos Analytics with Watson

\* Hospital\_Care\_Data2

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

10:40 AM

09-11-2022

My IBM \* New data module

https://us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=2736932216\_ef23a343153a4bc880ec6925f3a94ec2\_sessionTemp&objRef=8&tid=2736932216\_e... Not syncing

IBM Cognos Analytics with Watson \* New data module Search content

Properties

Data module +

Search

New data module

Navigation paths +

train\_data.csv

- # Row Id
- # case\_id
- # Hospital\_code
- # Hospital\_type\_code
- # City\_Code\_Hospital
- # Hospital\_region\_code
- Available ...n Hospital
- # Department
- # Ward\_Type
- # Ward\_Facility\_Code
- Bed Grade
- patientid
- City\_Code\_Patient
- # Type of Admission
- # Severity of Illness
- Visitors with Patient
- # Age
- Admission\_Deposit
- # Stay

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	9	Y	4	radiotherapy	S

## Hospital Data:

My IBM

New data module

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https://us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=1074720901\_47706e8da6ff401f8ddbe2081e6d31c0\_sessionTemp&objRef=8&tid=1074720901\_4...

Not syncing

IBM Cognos Analytics with Watson

New data module

Search content

Properties

Data module

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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 ...n 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

Grid

Relationships

Custom tables

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



The screenshot displays the IBM Cognos Analytics interface. On the left, a 'Data module' sidebar shows a tree view of 'test\_data.csv' with various fields like 'Row Id', 'case\_id', 'Hospital\_code', 'Hospital\_type\_code', 'City\_Code\_Hospital', 'Hospital\_region\_code', 'Available Extra Rooms in Hospital', 'Department', 'Ward\_Type', 'Ward\_Facility\_Code', 'Bed Grade', 'patientid', 'City\_Code\_Patient', 'Type of Admission', 'Severity of Illness', 'Visitors with Patient', 'Age', and 'Admission\_Deposit'. The 'Bed Grade' field is selected. The main area shows a grid view of the data with columns: 'tid', 'City\_Code\_Patient', 'Type of Admission', 'Severity of Illness', 'Visitors with Patient', 'Age', and 'Admission\_Deposit'. The data is organized into groups based on 'City\_Code\_Patient' (2 and Null) and 'Age' (71-80, 31-40, 51-60).

tid	City_Code_Patient	Type of Admission	Severity of Illness	Visitors with Patient	Age	Admission_Deposit
2	2	Emergency	Moderate	2	71-80	3095
2	2	Trauma	Moderate	4	71-80	4018
2	2	Emergency	Moderate	3	71-80	4492
2	2	Trauma	Moderate	3	71-80	4173
2	2	Trauma	Moderate	4	71-80	4161
2	2	Trauma	Moderate	2	71-80	4659
2	2	Trauma	Moderate	2	71-80	4167
Null	Null	Emergency	Moderate	2	31-40	4396
Null	Null	Trauma	Moderate	2	31-40	4088
Null	Null	Urgent	Moderate	2	31-40	3925
Null	Null	Trauma	Moderate	2	31-40	4241
Null	Null	Emergency	Moderate	6	31-40	3468
Null	Null	Trauma	Moderate	3	31-40	4322
Null	Null	Urgent	Moderate	2	31-40	4315
8	8	Emergency	Moderate	4	51-60	3288
8	8	Emergency	Moderate	4	51-60	6818
8	8	Emergency	Moderate	2	51-60	3410

## Prepared Data Link:

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

