

Project Development Phase

Delivery of Sprint-1

Date	28 OCT 2022
Team ID	PNT2022TMID26358
Project Name	Analytics for Hospitals' Health-Care Data

Project Development Phase:

Sprint-1:

- Data Collection
- Data Preparation

Sprint-2:

- Data Exploration

Sprint-3:

- Dashboard Creation

Sprint-4:

- Report Creation
- Story Creation

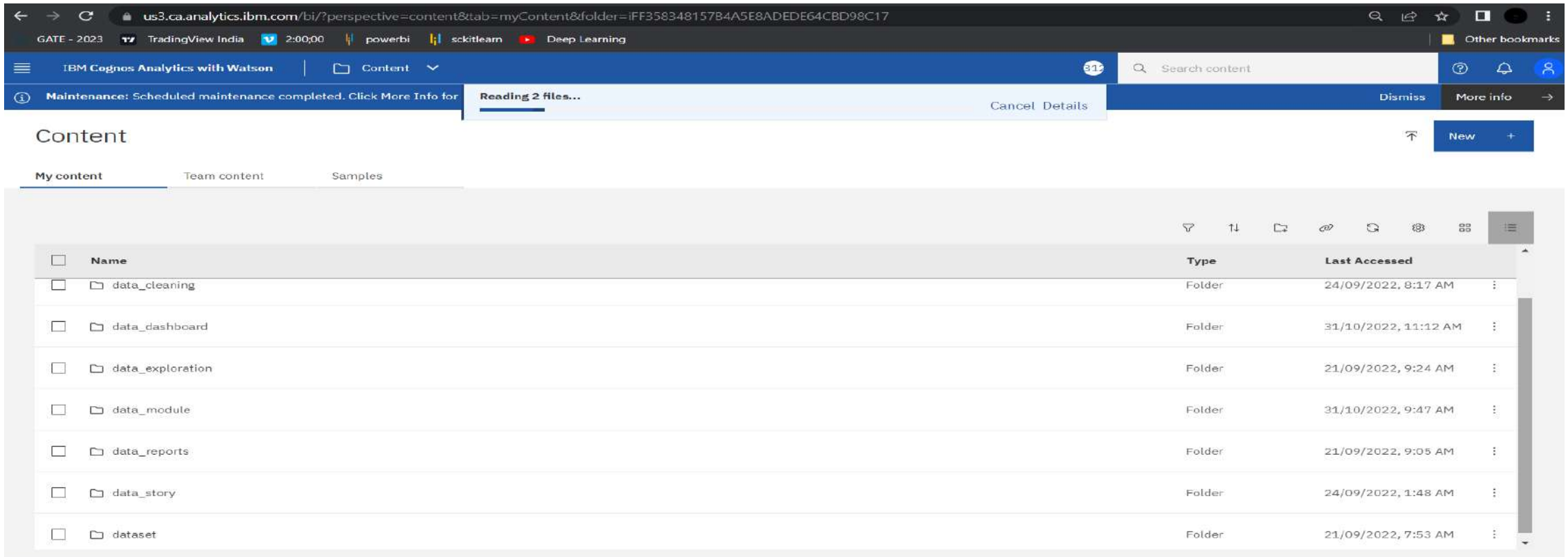
Sprint-1:

Data Collection: Download the Dataset Dataset link :

https://drive.google.com/file/d/1At2TxreNp7RfRo7SdsdI9F0a9O06AOuy/view?usp=share_link

Load the Dataset:

Tool used: IBM Cognos Analytics



The screenshot displays the IBM Cognos Analytics web interface. The browser address bar shows the URL: `us3.ca.analytics.ibm.com/bi/?perspective=content&tab=myContent&folder=IFF358348157B4ASE8ADEDE64CBD98C17`. The page header includes the IBM Cognos Analytics logo and a search bar. A notification banner at the top states: "Maintenance: Scheduled maintenance completed. Click More Info for". Below this, a progress bar indicates "Reading 2 files..." with "Cancel" and "Details" buttons. The main content area is titled "Content" and features tabs for "My content", "Team content", and "Samples". Under the "My content" tab, a list of folders is displayed with columns for "Name", "Type", and "Last Accessed".

Name	Type	Last Accessed
data_cleaning	Folder	24/09/2022, 8:17 AM
data_dashboard	Folder	31/10/2022, 11:12 AM
data_exploration	Folder	21/09/2022, 9:24 AM
data_module	Folder	31/10/2022, 9:47 AM
data_reports	Folder	21/09/2022, 9:05 AM
data_story	Folder	24/09/2022, 1:48 AM
dataset	Folder	21/09/2022, 7:53 AM

Data Preparation:

Prepare the Dataset

IBM Cognos Analytics with Watson

hospital_care_data

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Search content

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Properties

Data module

+

🕒

Search

hospital_care_data

Navigation paths

+

train_data.csv

test_data.csv

Grid

Relationships

Custom tables

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

Null Values Cleaning Process :

IBM Cognos Analytics with Watson | hospital_care_data

Search content

Edit calculation

Name: City_Code_Patient

Components

- between
- case
- contains
- currentMeasure
- default
- distinct
- else
- end
- ends with
- escape
- for
- for all
- for any

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.

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

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Search

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Operators

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Summaries

📄

Constants

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Constructs

📄

if then else

📄

in_range

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search case

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simple case

📄

Business Dat...e Functions

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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

+

🔍 Search

►  test data.csv

Custom tables

ent	Ward_Type	Ward_Facility_Code	Bed Grade	patientid	City_Code_Patient	Type of Admission	Severity of Illness	Vis
apy	R	F	2	31397	7	Emergency	Extreme	
apy	S	F	2	31397	7	Trauma	Extreme	
ia	S	E	2	31397	7	Trauma	Extreme	
apy	R	D	2	31397	7	Trauma	Extreme	
apy	S	D	2	31397	7	Trauma	Extreme	
ia	S	F	2	31397	7	Trauma	Extreme	
apy	S	B	3	31397	7	Emergency	Extreme	
apy	Q	F	3	31397	7	Trauma	Extreme	
gy	R	B	4	31397	7	Trauma	Extreme	
gy	S	E	3	31397	7	Trauma	Extreme	
apy	S	B	2	31397	7	Urgent	Extreme	
apy	R	D	1	31397	7	Urgent	Extreme	
apy	R	A	3	31397	7	Emergency	Extreme	
apy	S	F	3	31397	7	Urgent	Extreme	
gy	Q	F	3	63418	8	Emergency	Extreme	
gy	Q	F	3	63418	8	Emergency	Extreme	

Hospital Data :

IBM Cognos Analytics with Watson hospital_care_data									
Search content									
Properties									
Data module									
Grid Relationships Custom tables									
Search									
train_data.csv									
# Row Id									
# case_id									
# Hospital_code									
abc Hospital...pe_code									
City_Cod...Hospital									
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									
Admissio...Deposit									
abc Stay									
test_data.csv									
Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available E...in Hospital	Department		
1	1	8	c	3	Z	3	radiotherapy		
2	2	2	c	5	Z	2	radiotherapy		
3	3	10	e	1	X	2	anesthesia		
4	4	26	b	2	Y	2	radiotherapy		
5	5	26	b	2	Y	2	radiotherapy		
6	6	23	a	6	X	2	anesthesia		
7	7	32	f	9	Y	1	radiotherapy		
8	8	23	a	6	X	4	radiotherapy		
9	9	1	d	10	Y	2	gynecology		
10	10	10	e	1	X	2	gynecology		
11	11	22	g	9	Y	2	radiotherapy		
12	12	26	b	2	Y	4	radiotherapy		
13	13	16	c	3	Z	2	radiotherapy		
14	14	9	d	5	Z	3	radiotherapy		
15	15	6	a	6	X	4	gynecology		
16	16	6	a	6	X	3	gynecology		

Data ...dule

Search

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C...

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abc ...

abc ...

B...

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te...sv

Grid

Relationships

Custom tables

Grade	patientid	City_Code_Patient	Type of Admission	Severity of Illness	Visitors with Patient	Age	Admission_Deposit	Stay
	31397	7	Emergency	Extreme	2	51-60	4911	0-10
	31397	7	Trauma	Extreme	2	51-60	5954	41-50
	31397	7	Trauma	Extreme	2	51-60	4745	31-40
	31397	7	Trauma	Extreme	2	51-60	7272	41-50
	31397	7	Trauma	Extreme	2	51-60	5558	41-50
	31397	7	Trauma	Extreme	2	51-60	4449	11-20
	31397	7	Emergency	Extreme	2	51-60	6167	0-10
	31397	7	Trauma	Extreme	2	51-60	5571	41-50
	31397	7	Trauma	Extreme	2	51-60	7223	51-60
	31397	7	Trauma	Extreme	2	51-60	6056	31-40
	31397	7	Urgent	Extreme	2	51-60	5797	21-30
	31397	7	Urgent	Extreme	2	51-60	5993	11-20
	31397	7	Emergency	Extreme	2	51-60	5141	0-10
	31397	7	Urgent	Extreme	2	51-60	8477	21-30
	63418	8	Emergency	Extreme	2	71-80	2685	0-10
	63418	8	Emergency	Extreme	2	71-80	9398	0-10

Prepared data link :

https://us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&pathRef=.my_folders%2Fdata_module%2Fhospital_care_data