

Project Development Phase

Delivery of Sprint-1

Date	01 NOV 2022
Team ID	PNT2022TMID42093
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

ANALYTICS FOR HOSPITAL'S HEALTH – CARE DATA

PROJECT CONTRIBUTORS

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TEAM ID : PNT2022TMID42093

Sprint-1:

DOWNLOAD THE DATA SET

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=IFF358348157B4A5E8ADEDE64CBD98C17`. The page header includes the IBM Cognos Analytics logo and a search bar. A notification banner at the top indicates "Maintenance: Scheduled maintenance completed. Click More Info for details." Below this, a progress bar shows "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 "My content", a list of folders is displayed with columns for "Name", "Type", and "Last Accessed".

<input type="checkbox"/>	Name	Type	Last Accessed
<input type="checkbox"/>	data_cleaning	Folder	24/09/2022, 8:17 AM
<input type="checkbox"/>	data_dashboard	Folder	31/10/2022, 11:12 AM
<input type="checkbox"/>	data_exploration	Folder	21/09/2022, 9:24 AM
<input type="checkbox"/>	data_module	Folder	31/10/2022, 9:47 AM
<input type="checkbox"/>	data_reports	Folder	21/09/2022, 9:05 AM
<input type="checkbox"/>	data_story	Folder	24/09/2022, 1:48 AM
<input type="checkbox"/>	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 :

The screenshot shows the 'Edit calculation' dialog in IBM Cognos Analytics. The 'Name' field is set to 'City_Code_Patient'. The 'Expression' field contains the following SQL 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 and operators, including 'between', 'case', 'contains', 'currentMeasure', 'default', 'distinct', 'else', 'end', 'ends with', 'escape', 'for', 'for all', and 'for any'. The 'Validation Results' section at the bottom indicates that the expression is valid.

At the bottom of the dialog, there are 'Cancel' and 'OK' buttons.

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Search content

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Edit calculation

NameBed Grade

Components

🔍 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

Expression

1 IF (Bed_Grade is missing)

2 THEN (median (Bed_Grade))

3 ELSE(Bed_Grade)

Validate

Validation Results

✔ The expression is valid.

Cancel

OK

Data module

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

Grid

Relationships

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 :

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Search content

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Properties

Data module

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

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
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	14	14	9	d	5	Z	3	radiotherapy
	15	15	6	a	6	X	4	gynecology
	16	16	6	a	6	X	3	gynecology

	I 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

THANK YOU...

