

Sprint 1

Date	19 NOV 2022
Team ID	PNT2022TMID07957
Project Name	Analytics for Hospital's Health-Care Data

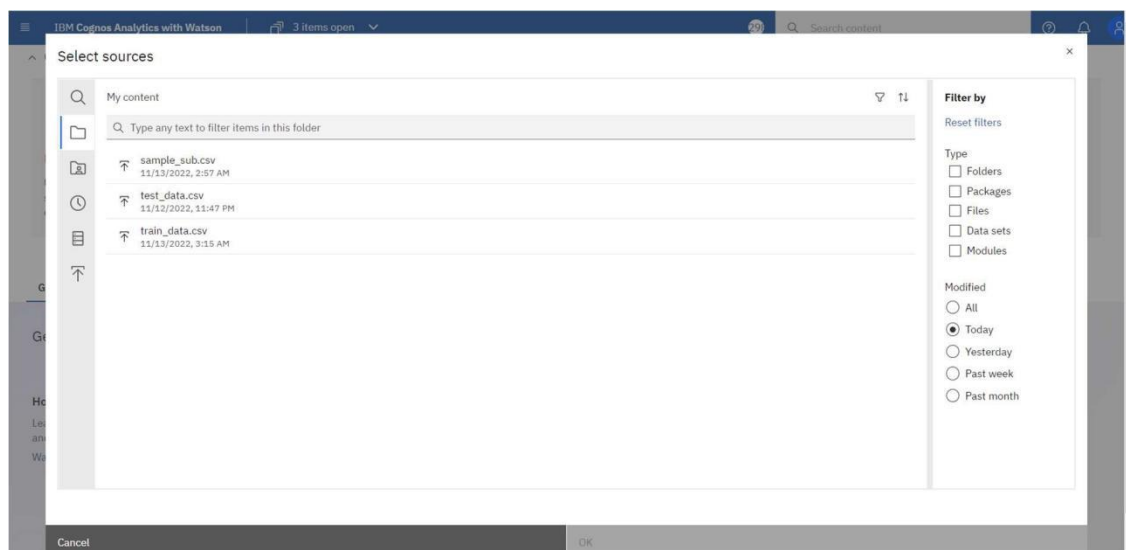
Data collection and Data preparation –

- Hospital data is collected from various resources and hospital database. These data are made into datasets with csv extension

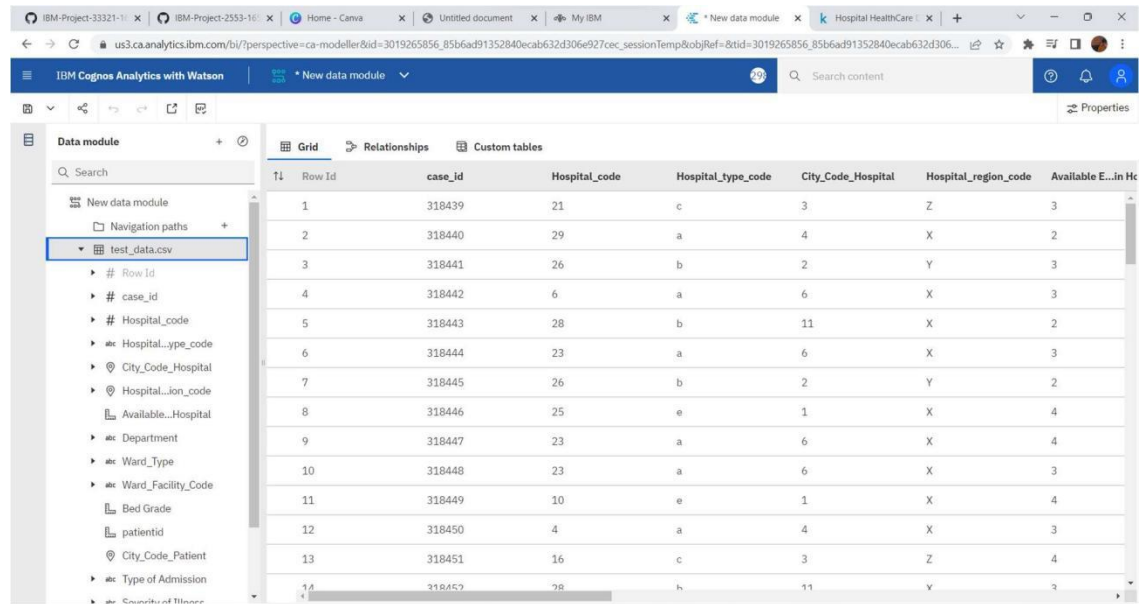
Dataset definition:

- The dataset consists of four csv files:
 1. test_data.csv
 2. sample_sub.csv
 3. test_data.csv
 4. train_data.csv

Uploading dataset in IBM Cognos



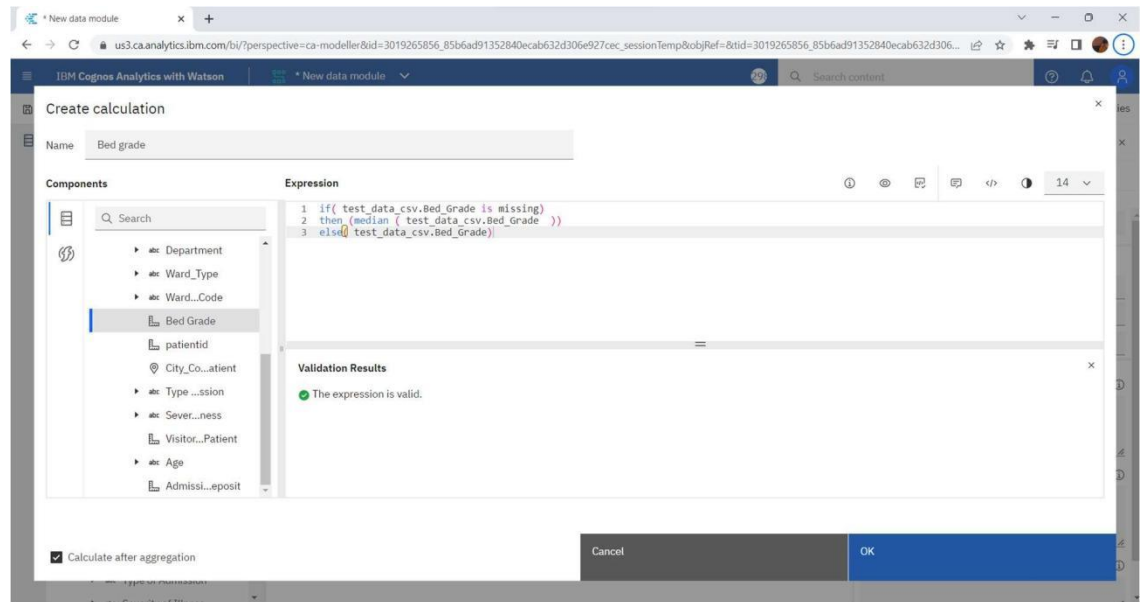
Data Prep using IBM Cognos



The screenshot shows the IBM Cognos Analytics interface. On the left, the 'Data module' pane is open, showing a search bar and a list of fields under 'test_data.csv'. The main area displays a grid view of the data. The grid has columns for Row Id, case_id, Hospital_code, Hospital_type_code, City_Code_Hospital, Hospital_region_code, and Available E...in Hc. The data is organized into 14 rows.

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

Adding data filters in IBM Cognos

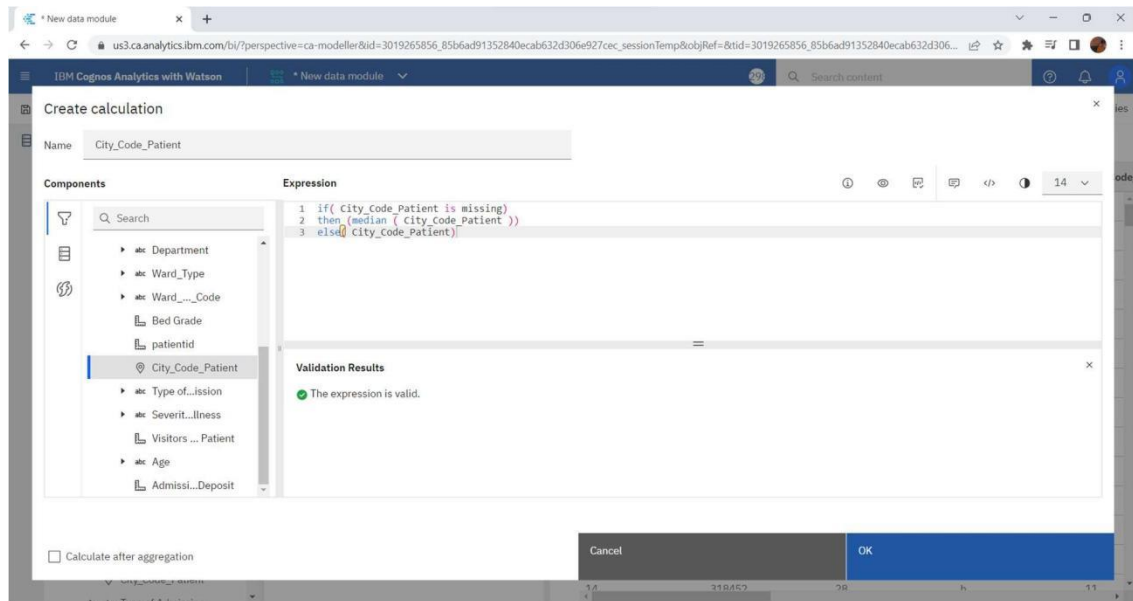


The screenshot shows the 'Create calculation' dialog box in IBM Cognos Analytics. The 'Name' field is set to 'Bed grade'. The 'Expression' field contains the following code:

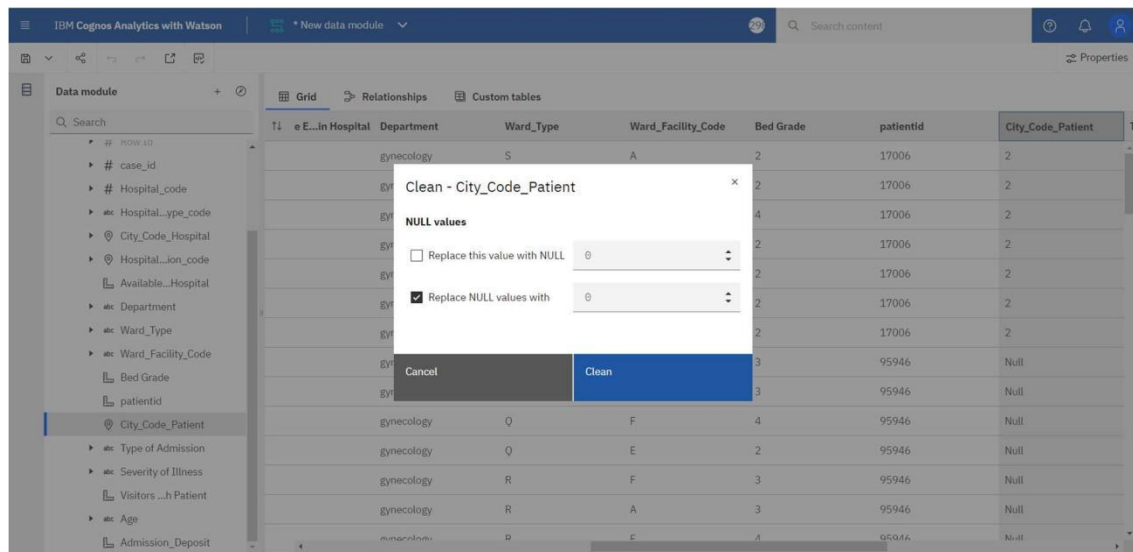
```
1 if( test_data.csv.Bed_Grade is missing)
2 then (median ( test_data.csv.Bed_Grade ))
3 else( test_data.csv.Bed_Grade )
```

The 'Components' pane on the left shows a list of fields, including 'Bed Grade', 'patientid', 'City_Code...atient', 'Type ...ssion', 'Sever...ness', 'Visitor...Patient', 'Age', and 'Admissi...eposit'. The 'Validation Results' section shows a green checkmark and the message 'The expression is valid.'.

At the bottom, there are checkboxes for 'Calculate after aggregation' (checked), 'Cancel', and 'OK' buttons.



Removing Null values in the dataset (Cleaning)



After Data cleaning

us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=3019265856_85b6ad91352840ecab632d306e927cec_sessionTemp&objRef=&tid=3019265856_85b6ad91352840ecab632d306...

IBM Cognos Analytics with Watson

New data module

Grid Relationships Custom tables

Search

ROW ID

case_id

Hospital_code

Hospital...ype_code

City_Code_Hospital

Hospital...ion_code

Available...Hospital

Department

Ward_Type

Ward_Facility_Code

Bed Grade

patientid

City_Code_Patient

Type of Admission

Severit

T1	Ward_Type	Ward_Facility_Code	Bed Grade	patientid	City_Code_Patient	Type of Admission	Severit
	S	A	2	17006	2	Emergency	Mod
	S	F	2	17006	2	Trauma	Mod
	Q	D	4	17006	2	Emergency	Mod
	Q	F	2	17006	2	Trauma	Mod
	R	F	2	17006	2	Trauma	Mod
	Q	F	2	17006	2	Trauma	Mod
	Q	D	2	17006	2	Trauma	Mod
	S	E	3	95946	0	Emergency	Mod
	Q	F	3	95946	0	Trauma	Mod
	Q	F	4	95946	0	Urgent	Mod
	Q	E	2	95946	0	Trauma	Mod
	R	F	3	95946	0	Emergency	Mod
	R	A	3	95946	0	Trauma	Mod
	P	F	A	95946	0	Urgent	Mod

us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=3019265856_85b6ad91352840ecab632d306e927cec_sessionTemp&objRef=&tid=3019265856_85b6ad91352840ecab632d306...

IBM Cognos Analytics with Watson

New data module

Grid Relationships Custom tables

Search

ROW ID

case_id

Hospital_code

Hospital...ype_code

City_Code_Hospital

Hospital...ion_code

Available...Hospital

Department

Ward_Type

Ward_Facility_Code

Bed Grade

patientid

City_Code_Patient

Type of Admission

Severity of Illness

Visitors ...h Patient

Age

Admission_Deposit

T1	Available E...In Hospital	Department	Ward_Type	Ward_Facility_Code	Bed Grade	patientid	City_Code_Pati
	3	gynecology	S	A	2	17006	2
	2	gynecology	S	F	2	17006	2
	3	gynecology	Q	D	4	17006	2
	3	gynecology	Q	F	2	17006	2
	2	gynecology	R	F	2	17006	2
	3	gynecology	Q	F	2	17006	2
	2	gynecology	Q	D	2	17006	2
	4	gynecology	S	E	3	95946	0
	4	gynecology	Q	F	3	95946	0
	3	gynecology	Q	F	4	95946	0
	4	gynecology	Q	E	2	95946	0
	3	gynecology	R	F	3	95946	0
	4	gynecology	R	A	3	95946	0
	2	gynecology	D	E	A	95946	0

Prepared Data set after cleaning and removing NULL:

Sprint 1

us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=i20E3457BF9FB477BAD3DE281E84BA51B&objRef=i20E3457BF9FB477BAD3DE281E84BA51B&tid=3019265856_85b6ad913528...

IBM Cognos Analytics with Watson

Sprint 1

Search content

Properties

Data module

Search

Sprint 1

Navigation paths

Bed grade

test_data.csv

City_Code_Patient

Row Id

case_id

Hospital_code

Hospital...ype_code

City_Code_Hospital

Hospital...ion_code

Available...Hospital

Department

Ward_Type

Ward_Facility_Code

Bed Grade

patientId

City Code Patient

Grid

Relationships

Custom tables

T1	City_Code_Patient	Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_c
2		1	318439	21	c	3	Z
2		2	318440	29	a	4	X
2		3	318441	26	b	2	Y
2		4	318442	6	a	6	X
2		5	318443	28	b	11	X
2		6	318444	23	a	6	X
2		7	318445	26	b	2	Y
0		8	318446	25	e	1	X
0		9	318447	23	a	6	X
0		10	318448	23	a	6	X
0		11	318449	10	e	1	X
0		12	318450	4	a	4	X
0		13	318451	16	c	3	Z
0		14	318452	28	b	11	Y