

ANALYTICS FOR HOSPITAL'S HEALTH-CARE DATA

PROJECT DEVELOPMENT PHASE



SUBMITTED BY

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PROJECT DEVELOPMENT PHASE DELIVERY OF SPRINT-1

Team ID	PNT2022TMID20910
Project Name	Analytics for Hospitals' Health-Care Data

PROJECT DEVELOPMENT PHASE

<p>Sprint-1:</p> <ul style="list-style-type: none">○ Data Collection○ Data Preparation <p>Sprint-2:</p> <ul style="list-style-type: none">○ Data Exploration	<p><u>Sprint-3:</u></p> <ul style="list-style-type: none">○ Dashboard Creation <p><u>Sprint-4:</u></p> <ul style="list-style-type: none">○ Report Creation○ Story Creation
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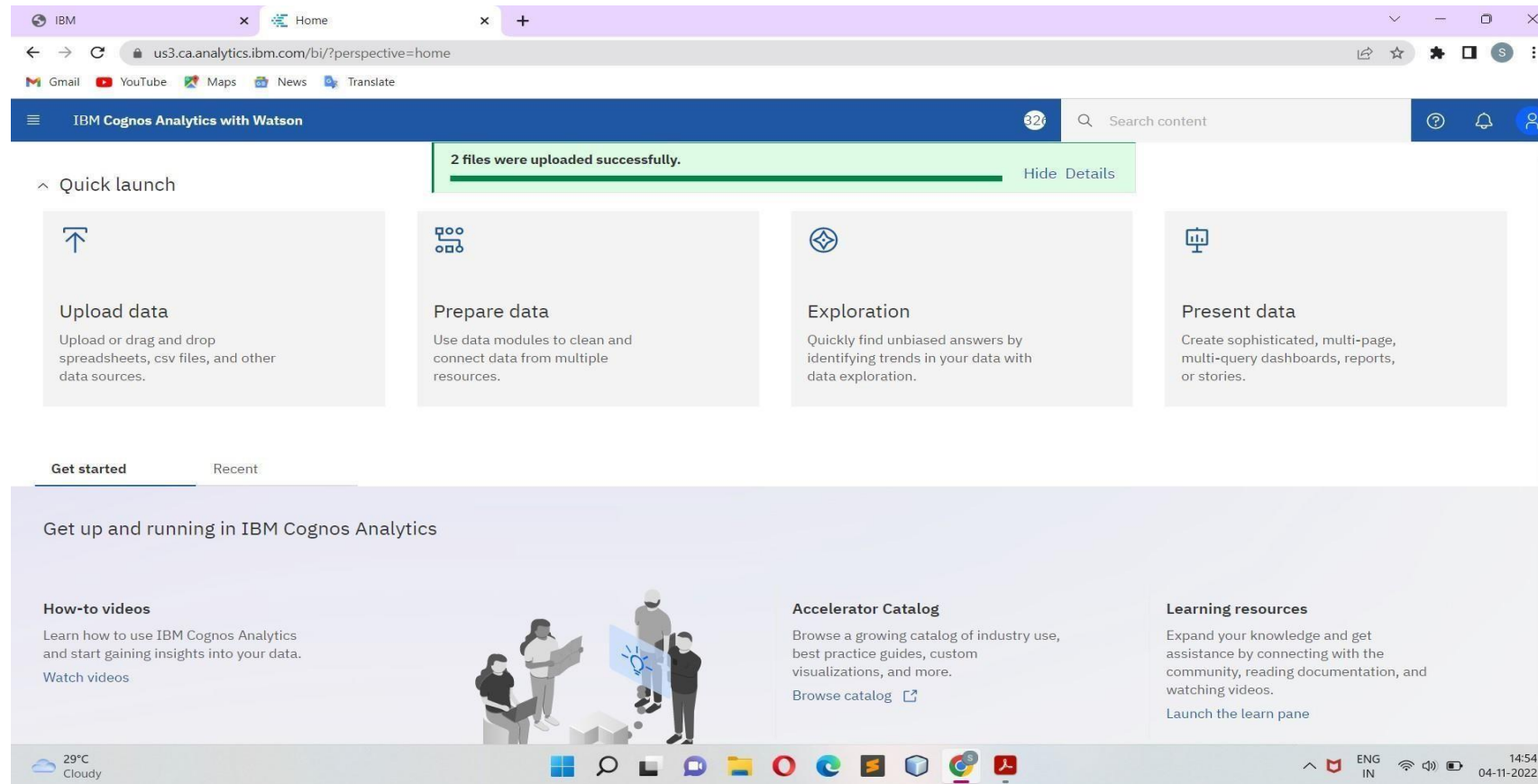
Sprint-1:

Data Collection

Download the Dataset Dataset link https://drive.google.com/drive/folders/1qozDgfVw04hGS8Di_SFhUNdUKUdjkhT?usp=sharing

Load the Dataset:

Tool used: IBM Cognos Analytics



Data Preparation:

Prepare the dataset

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hospital_care_data

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📁 hospital_care_data

📁 Navigation paths

▶ 📄 train_data.csv

▶ 📄 test_data.csv

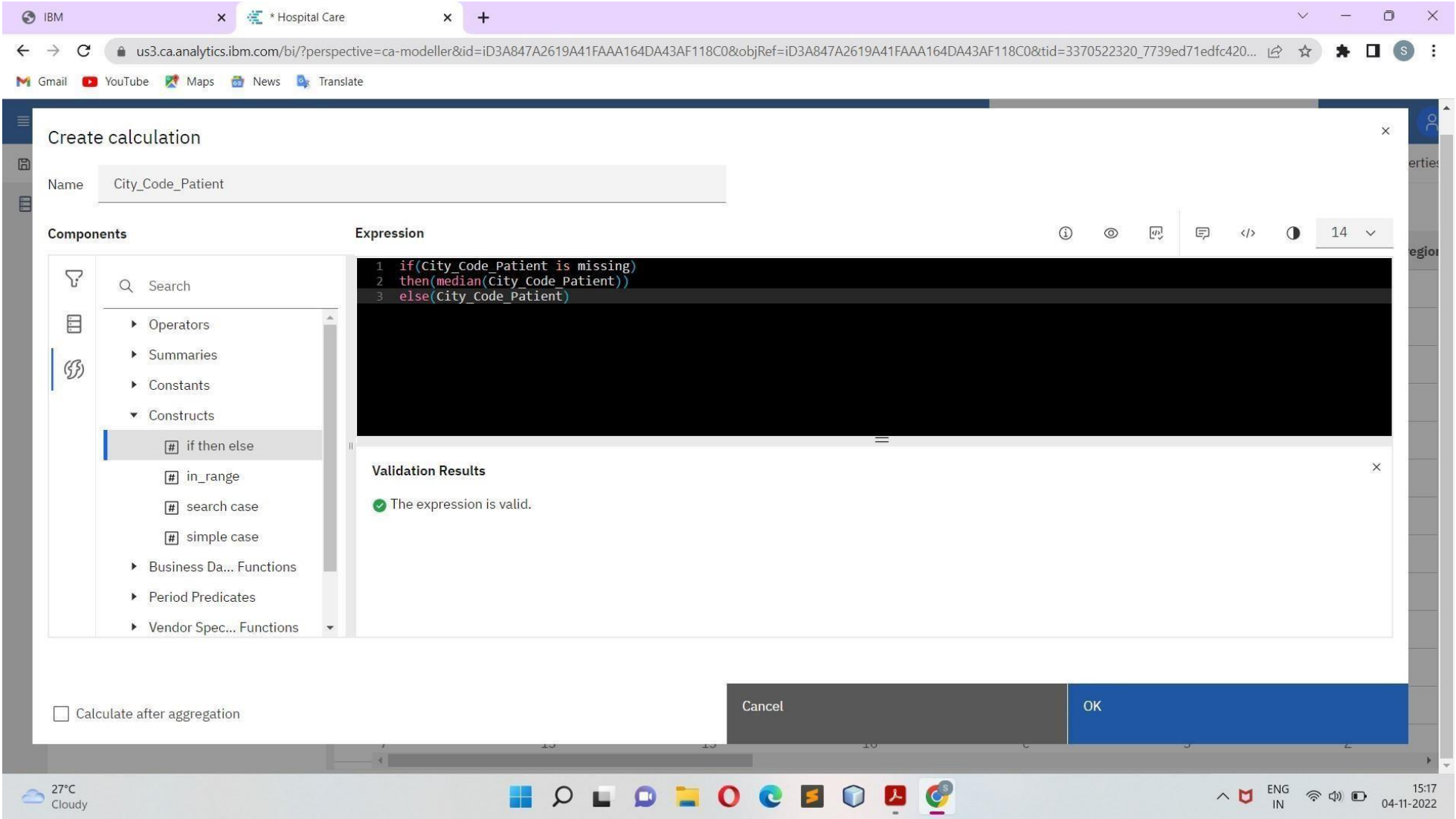
Grid

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:



Create calculation

Name

Components

-
- test_data.csv
 - # Row Id
 - # case_id
 - # Hospital_code
 - abc Hospit..._code
 - City_Co...spital
 - Hospit..._code
 - Availabl...Hospital
 - abc Department
 - abc Ward_Type
 - abc Ward_..._Code

Expression

```
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

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🔍 Search

▶ # case_id

▶ # Hospital_code

▶ abc Hospital_type_code

▶ 📍 City_Code_Hospital

▶ 📍 Hospital...ion_code

📄 Available... 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 ...h Patient

▶ abc Age

📄 Admission_Denosit

📊 Grid

🔗 Relationships

📄 Custom tables

↕	Bed Grade	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
	4	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
	3	8	318446	25	e	1	X
	3	9	318447	23	a	6	X
	4	10	318448	23	a	6	X
	2	11	318449	10	e	1	X
	3	12	318450	4	a	4	X
	3	13	318451	16	c	3	Z

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Hospital Data:

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case_id

Hospital_code

abc Hospital_type_code

📍 City_Code_Hospital

📍 Hospital...ion_code

📄 Available... 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 ...h Patient

abc Age

📄 Admission Deposit

Grid

Relationships

Custom tables

↕	Bed Grade	patientid	City_Code_Patient	Type of Admission	Severity of Illness	Visitors with Patient	Age
2	17006	2	Emergency	Moderate	2	71-80	
2	17006	2	Trauma	Moderate	4	71-80	
4	17006	2	Emergency	Moderate	3	71-80	
2	17006	2	Trauma	Moderate	3	71-80	
2	17006	2	Trauma	Moderate	4	71-80	
2	17006	2	Trauma	Moderate	2	71-80	
2	17006	2	Trauma	Moderate	2	71-80	
3	95946	Null	Emergency	Moderate	2	31-40	
3	95946	Null	Trauma	Moderate	2	31-40	
4	95946	Null	Urgent	Moderate	2	31-40	
2	95946	Null	Trauma	Moderate	2	31-40	
3	95946	Null	Emergency	Moderate	6	31-40	
3	95946	Null	Trauma	Moderate	3	31-40	

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case_id

Hospital_code

abc Hospital_type_code

📍 City_Code_Hospital

📍 Hospital...ion_code

📄 Available... 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 ...h Patient

abc Age

Admission_Deposit

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4		17006	2	Emergency	Moderate	3	71-80
2		17006	2	Trauma	Moderate	3	71-80
2		17006	2	Trauma	Moderate	4	71-80
2		17006	2	Trauma	Moderate	2	71-80
2		17006	2	Trauma	Moderate	2	71-80
3		95946	Null	Emergency	Moderate	2	31-40
3		95946	Null	Trauma	Moderate	2	31-40
4		95946	Null	Urgent	Moderate	2	31-40
2		95946	Null	Trauma	Moderate	2	31-40
3		95946	Null	Emergency	Moderate	6	31-40
3		95946	Null	Trauma	Moderate	3	31-40

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