

ANALYTICS FOR HOSPITAL'S HEALTH-CARE DATA

PROJECT DEVELOPMENT PHASE



SUBMITTED BY
SHREE NARMADHA TS
Ayyankalai A
Sanjeevi V
Thiripura Sundhar A

PROJECT DEVELOPMENT PHASE

DELIVERY OF SPRINT-1

Team ID	PNT2022TMID07282
Project Name	Analytics for Hospitals' Health-Care Data

PROJECT DEVELOPMENT PHASE

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

Sprint-1:

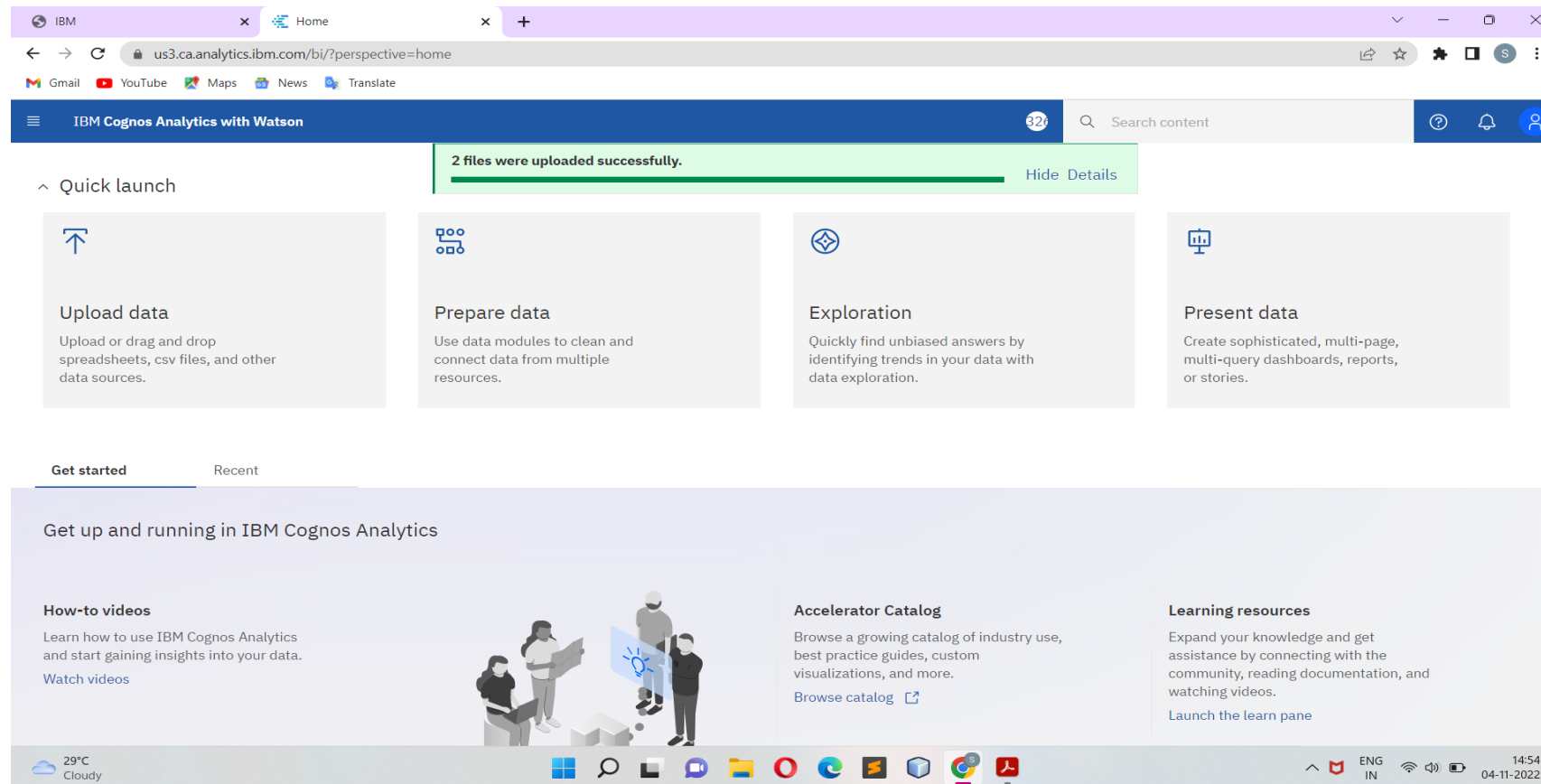
Data Collection

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

IBM Cognos Analytics with Watson

hospital_care_data

312

Search content

?

🔔

👤

📁

▼

🔗

↶

↷

📄

🔄

📄

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	1	8	c	3	Z	3	radiotherapy
2	2	2	2	c	5	Z	2	radiotherapy
3	3	3	10	e	1	X	2	anesthesia
4	4	4	26	b	2	Y	2	radiotherapy
5	5	5	26	b	2	Y	2	radiotherapy
6	6	6	23	a	6	X	2	anesthesia
7	7	7	32	f	9	Y	1	radiotherapy
8	8	8	23	a	6	X	4	radiotherapy
9	9	9	1	d	10	Y	2	gynecology
10	10	10	10	e	1	X	2	gynecology
11	11	11	22	g	9	Y	2	radiotherapy
12	12	12	26	b	2	Y	4	radiotherapy
13	13	13	16	c	3	Z	2	radiotherapy
14	14	14	9	d	5	Z	3	radiotherapy
15	15	15	6	a	6	X	4	gynecology
16	16	16	6	a	6	X	3	gynecology

Null Values Cleaning Process:

IBM

* Hospital Care

+

us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=iD3A847A2619A41FAAA164DA43AF118C0&objRef=iD3A847A2619A41FAAA164DA43AF118C0&tid=3370522320_7739ed71edfc420...

Gmail YouTube Maps News Translate

Create calculation

Name

City_Code_Patient

Components

Search

Operators

Summaries

Constants

Constructs

if then else

in_range

search case

simple case

Business Da... Functions

Period Predicates

Vendor Spec... 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.

☐ Calculate after aggregation

Cancel

OK

27°C Cloudy

Windows Taskbar Icons

System Tray

IBM

* Hospital Care

+

← → ↺

us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=iD3A847A2619A41FAAA164DA43AF118C0&objRef=iD3A847A2619A41FAAA164DA43AF118C0&tid=3370522320_7739ed71edfc420...

☆

🔍

📧

📺

📍

📰

🗣️

IBM Cognos Analytics with Watson

* Hospital Care

32f

Search content

?

🔔

👤

Create calculation

×

Name

Bed Grade

Components

Expression

22

🔍 Search

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

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

27°C Cloudy

🏠 🔍 📁 🗨️ 📂 🌐 ⚡ 📄 🌐

ENG IN 📶 🔊 🔋 15:19 04-11-2022

Data module

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 Date

Grid

Relationships

Custom tables

↕	Bed Grade	Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region
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

Hospital Data:

IBM

* Hospital Care

+

us3.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=iD3A847A2619A41FAAA164DA43AF118C0&objRef=iD3A847A2619A41FAAA164DA43AF118C0&tid=3370522320_7739ed71edfc420...

Gmail YouTube Maps News Translate

IBM Cognos Analytics with Watson

* Hospital Care

326

Search content

?

🔔

👤

📁

🔗

↶

↷

📄

🔍 Properties

Data module

🔍 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_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

27°C Cloudy

📺 🔍 🖨️ 🗨️ 📁 📄 🌐 📧 📺

ENG IN

📶 🔊 🔋

15:22 04-11-2022

Prepared data link:

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



