

PROJECT DEVELOPMENT PHASE

DELIVERY OF SPRINT 1

| | |
|---------------------|---|
| Date | 14 NOVEMBER 2022 |
| Team ID | PNT2022MID15567 |
| Project Name | Analytics for Hospitals' Health-Care Data |

Project Development Phase:

Sprint- 1:

- Data collection
- Data preparation

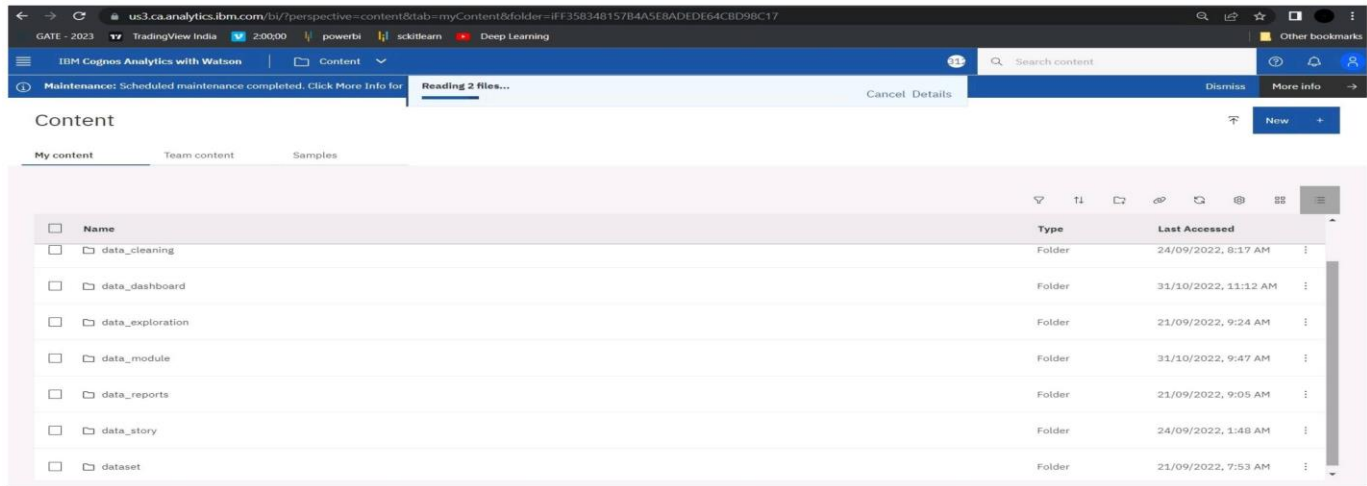
Sprint-1:

Data Collection: Download the Dataset Dataset link :

https://drive.google.com/drive/folders/1qozDgfVw04hGS8Di_SFhUNdUKUdjkhRT?usp=sharing

Load the Dataset:

Tool used: IBM Cognos Analytics



The screenshot shows the IBM Cognos Analytics web interface. The browser address bar displays the URL: `us3.ca.analytics.ibm.com/bi/perspective-content&tab=myContent&folder=IFF358348157B4A5E8ADEDE64CBD98C17`. The page title is "IBM Cognos Analytics with Watson". The main navigation bar includes "Content" and a search bar. A notification banner at the top states: "Maintenance: Scheduled maintenance completed. Click More Info for". A modal dialog titled "Reading 2 files..." is open, with "Cancel" and "Details" buttons. The "Content" section is active, showing a list of folders under "My content". The list includes folders named "data_cleaning", "data_dashboard", "data_exploration", "data_module", "data_reports", "data_story", and "dataset". Each folder entry shows its type as "Folder" and its last accessed date and time.

| 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

Search content

Properties

hospital_care_data

Navigation paths

train_data.csv

test_data.csv

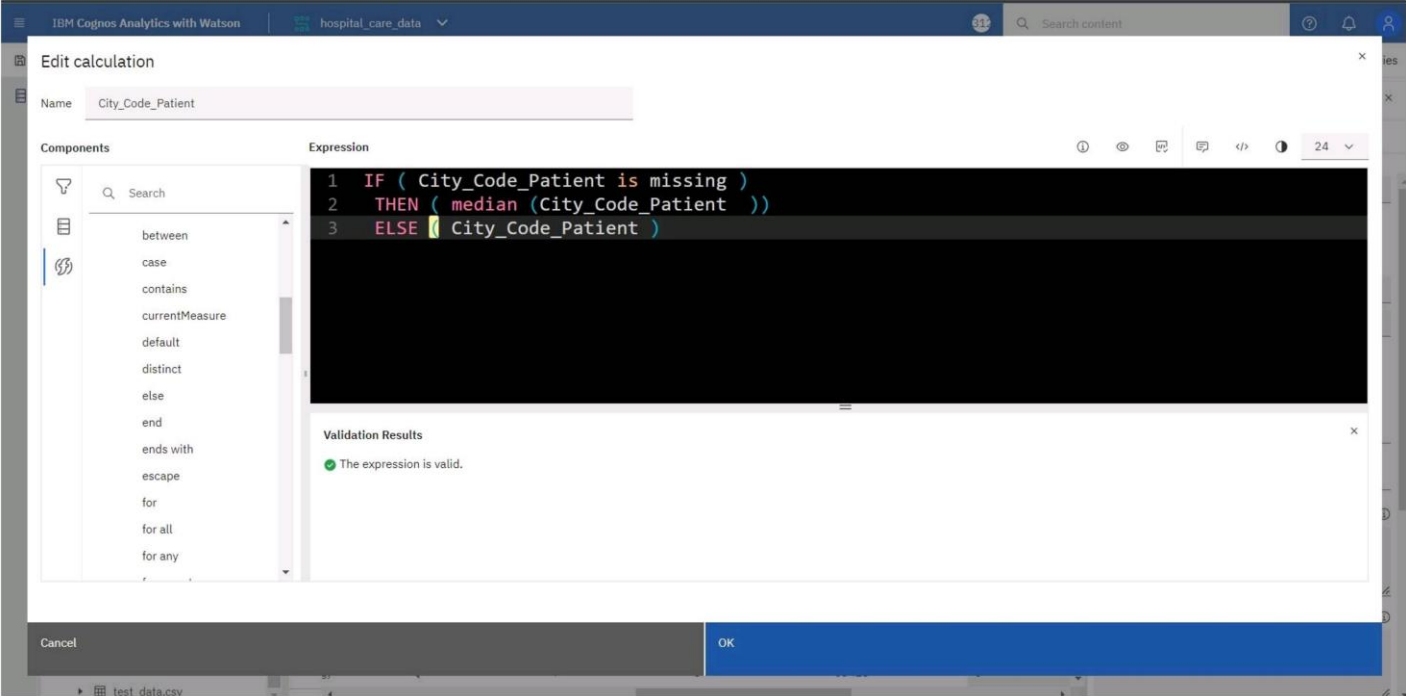
Grid

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 :



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hospital_care_data

Search content

24

Edit calculation

NameBed Grade

Components

Search

Operators

Summaries

Constants

Constructs

if then else

in_range

search case

simple case

Business Date 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)

Validation Results

The expression is valid.

Cancel

OK

IBM Cognos Analytics with Watson

hospital_care_data

Search content

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

| 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 | |
| zy | R | B | 4 | 31397 | 7 | Trauma | Extreme | |
| zy | 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 | |
| zy | Q | F | 3 | 63418 | 8 | Emergency | Extreme | |
| zy | 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 | | Row Id | | case_id | | Hospital_code | |
| train_data.csv | | 1 | | 1 | | 8 | |
| # Row Id | | 2 | | 2 | | 2 | |
| # case_id | | 3 | | 3 | | 10 | |
| # Hospital_code | | 4 | | 4 | | 26 | |
| Hospital_pe_code | | 5 | | 5 | | 26 | |
| City_Cod...Hospital | | 6 | | 6 | | 23 | |
| Hospital_Lion_code | | 7 | | 7 | | 32 | |
| Available...Hospital | | 8 | | 8 | | 23 | |
| Department | | 9 | | 9 | | 1 | |
| Ward_Type | | 10 | | 10 | | 10 | |
| Ward_Fa...ty_Code | | 11 | | 11 | | 22 | |
| Bed Grade | | 12 | | 12 | | 26 | |
| patientid | | 13 | | 13 | | 16 | |
| City_Code_Patient | | 14 | | 14 | | 9 | |
| Type of Admission | | 15 | | 15 | | 6 | |
| Severity of Illness | | 16 | | 16 | | 6 | |
| Visitors ...h Patient | | | | | | | |
| Age | | | | | | | |
| Admissio...Deposit | | | | | | | |
| Stay | | | | | | | |
| test_data.csv | | | | | | | |

IBM Cognos Analytics with Watson

hospital_care_data

Search content

Properties

Grid

Relationships

Custom tables

Search

tr...sv

R...

C...

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abc H...

C...

H...

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abc D...

abc ...

abc ...

B...

p...

C...

abc T...

abc S...

V...

abc Age

A...

abc Sta

te...sv

| 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 |