

Project Development Phase

Sprint - 1

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| Date | 23 October 2022 |
| Team ID | PNT2022TMID14777 |
| Project Name | Project - Analytics for hospitals health care data |

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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

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TEAM MEMBER 3 : MANJEET SINGH



TEAM ID : PNT2022TMID14777

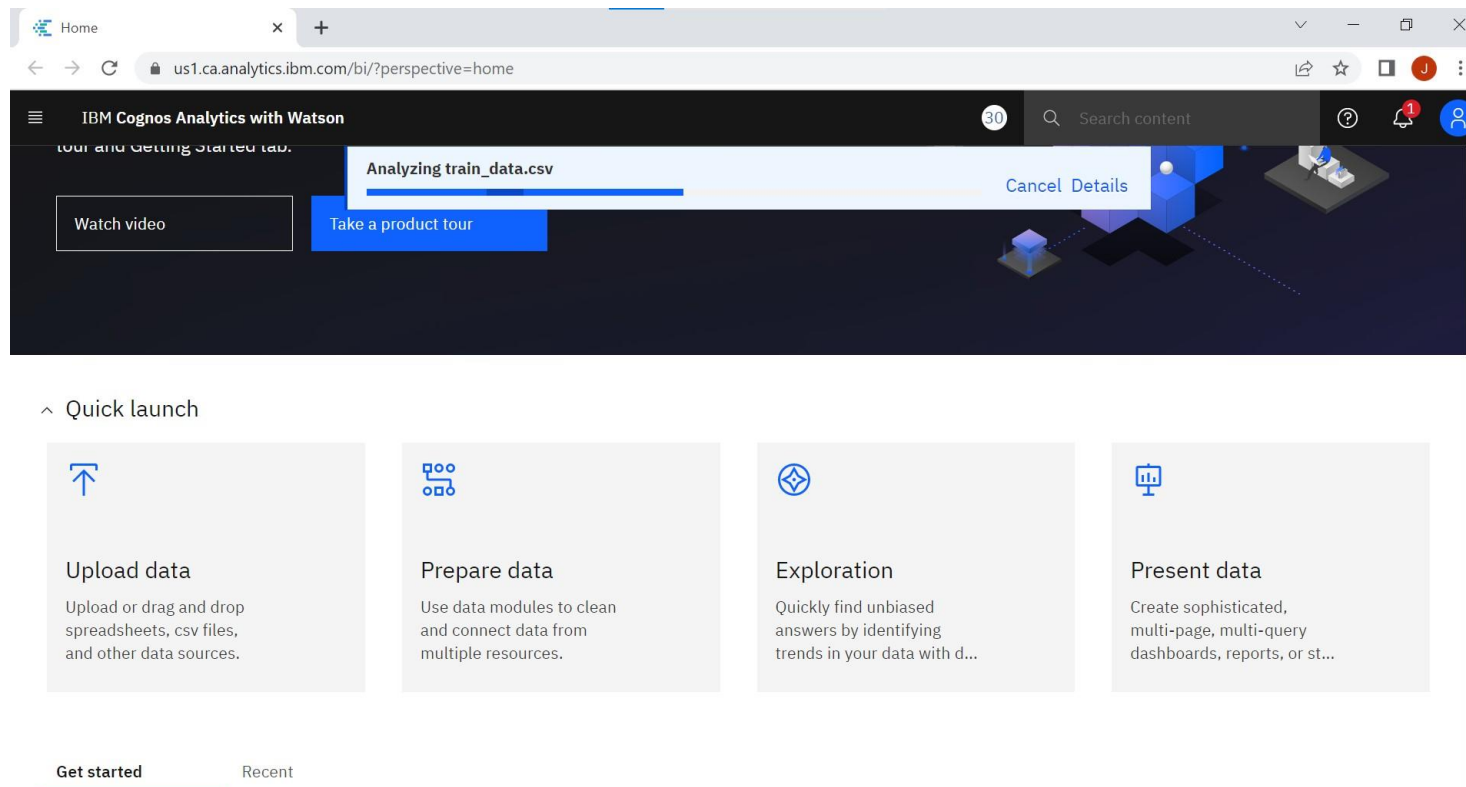
Sprint-1

Data Collection

Downloading the Dataset link :

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

Tool used for uploading the dataset : IBM Cognos Analytics



Data Preparation

health_care_analytics

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=i073BE479856B437F9743A1E50382B770&objRef=i073BE479856B437F9743A1E50382B770&tid...

IBM Cognos Analytics with Watsonhealth_care_analytics30Search content

GridRelationshipsCustom tables

| Row Id | case_id | Hospital_code | Hospital_type_code | City_Code_Hospital | Hosp |
|--------|---------|---------------|--------------------|--------------------|------|
| 1 | 1 | 8 | c | 3 | Z |
| 2 | 2 | 2 | c | 5 | Z |
| 3 | 3 | 10 | e | 1 | X |
| 4 | 4 | 26 | b | 2 | Y |
| 5 | 5 | 26 | b | 2 | Y |
| 6 | 6 | 23 | a | 6 | X |
| 7 | 7 | 32 | f | 9 | Y |
| 8 | 8 | 23 | a | 6 | X |
| 9 | 9 | 1 | d | 10 | Y |
| 10 | 10 | 10 | e | 1 | X |

Data module

health_care_analytics

Navigation paths

test_data.csv

train_data.csv

Handling missing values

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

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

The 'Components' panel on the left shows a tree view with 'Constructs' expanded, and 'if then else' selected. Below the expression, the 'Validation Results' section shows a green checkmark and the message: 'The expression is valid.'

At the bottom of the dialog, there is a checkbox labeled 'Calculate after aggregation' which is currently unchecked. To the right of this checkbox are two buttons: 'Cancel' and 'OK'.

health_care_analytics

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=i073BE479856B437F9743A1E50382B770&objRef=i073BE479856B437F9743A1E50382B770...

IBM Cognos Analytics with Watsonhealth_care_analytics30Search content

Properties

Data module

Search

Row Id

case_id

Hospital_code

abc Hospital...pe_code

City_Cod...Hospital

Hospital...on_code

Availabl...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

GridRelationshipsCustom tables

| City_Code_Hospital | Hospital_region_code | Available E...in Hospital | Department | Ward_Type | Ward_Facility_Code | Bed Grade |
|--------------------|----------------------|---------------------------|--------------|-----------|--------------------|-----------|
| 3 | Z | 3 | radiotherapy | R | F | 2 |
| 5 | Z | 2 | radiotherapy | S | F | 2 |
| 1 | X | 2 | anesthesia | S | E | 2 |
| 2 | Y | 2 | radiotherapy | R | D | 2 |
| 2 | Y | 2 | radiotherapy | S | D | 2 |
| 6 | X | 2 | anesthesia | S | F | 2 |
| 9 | Y | 1 | radiotherapy | S | B | 3 |
| 6 | X | 4 | radiotherapy | Q | F | 3 |
| 10 | Y | 2 | gynecology | R | B | 4 |
| 1 | X | 2 | gynecology | S | E | 3 |
| 9 | Y | 2 | radiotherapy | S | B | 2 |
| 2 | Y | 4 | radiotherapy | R | D | 1 |
| 3 | Z | 2 | radiotherapy | R | A | 3 |
| 5 | Z | 3 | radiotherapy | S | F | 3 |

health_care_analytics

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IBM Cognos Analytics with Watsonhealth_care_analytics

Create calculation

NameCity_Code_Patient

Components

Search

Operators

Summaries

Constants

Constructs

#if then else

#in_range

#search case

#simple case

Business D... Functions

Period Predicates

Vendor Spe... 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

CancelOK

health_care_analytics

us1.ca.analytics.ibm.com/bi/?perspective=ca-modeller&id=i073BE479856B437F9743A1E50382B770&objRef=i073BE479856B437F9743A1E50382B770...

IBM Cognos Analytics with Watsonhealth_care_analytics30Search content

Properties

Data module

Search

Bed_Grade

Row Id

case_id

Hospital_code

abc Hospital...pe_code

City_Cod...Hospital

Hospital...on_code

Availabl...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

GridRelationshipsCustom tables

| Available E...in Hospital | Department | Ward_Type | Ward_Facility_Code | Bed Grade | patientid | City_Code_Patient | T |
|---------------------------|--------------|-----------|--------------------|-----------|-----------|-------------------|---|
| 3 | radiotherapy | R | F | 2 | 31397 | 7 | |
| 2 | radiotherapy | S | F | 2 | 31397 | 7 | |
| 2 | anesthesia | S | E | 2 | 31397 | 7 | |
| 2 | radiotherapy | R | D | 2 | 31397 | 7 | |
| 2 | radiotherapy | S | D | 2 | 31397 | 7 | |
| 2 | anesthesia | S | F | 2 | 31397 | 7 | |
| 1 | radiotherapy | S | B | 3 | 31397 | 7 | |
| 4 | radiotherapy | Q | F | 3 | 31397 | 7 | |
| 2 | gynecology | R | B | 4 | 31397 | 7 | |
| 2 | gynecology | S | E | 3 | 31397 | 7 | |
| 2 | radiotherapy | S | B | 2 | 31397 | 7 | |
| 4 | radiotherapy | R | D | 1 | 31397 | 7 | |
| 2 | radiotherapy | R | A | 3 | 31397 | 7 | |
| 3 | radiotherapy | S | F | 3 | 31397 | 7 | |

Data Preparation Link:

https://us1.ca.analytics.ibm.com/bi/?perspective=camodeller&pathRef=.my_folders%2Fhealth_care_analytics

