Project Development Phase
Delivery of Sprint-1

Date	**29 OCTOBER 2022**
Team ID	PNT2022TMID37684
Project Name	Analytics for Hospitals' Health-Care Data

Project Development Phase:

Sprint-1:

- ➢ Data Collection
- ➢ Data Preparation

Sprint-2:

- ➢ Data Exploration

Sprint-3:

- ➢ Dashboard Creation

Sprint-4:

- ➢ Report Creation
- ➢ Story Creation

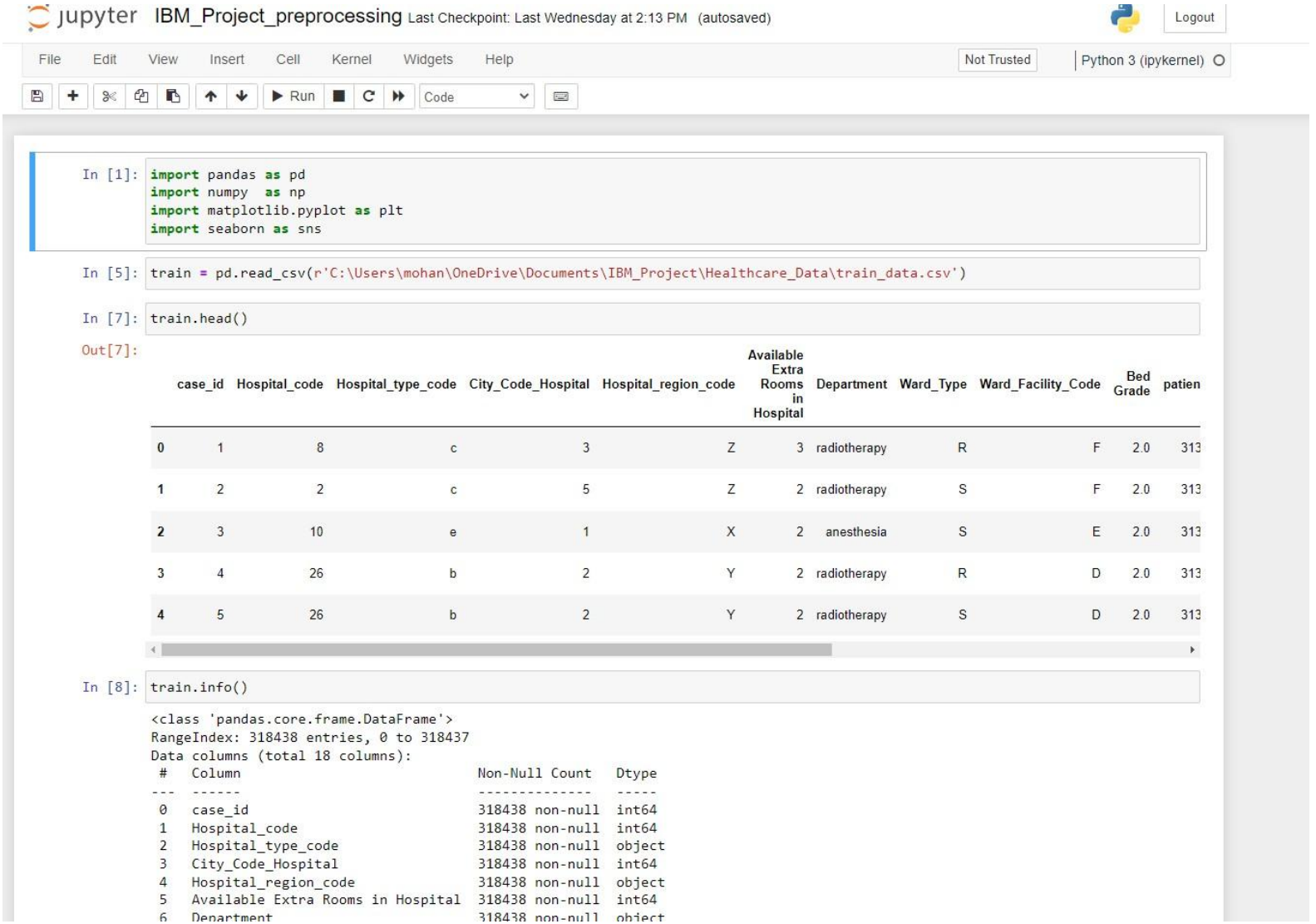
Contributors:

M.Santhiya
K.Salman Khan
K.Pramoth
R.Gomathi

SPRINT-1

Data Preprocessing:

Using Jupyter notebook to remove the null values:



	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available Extra Rooms in Hospital	Department	Ward_Type	Ward_Facility_Code	Bed Grade	patien
0	1	8	c	3	Z	3	radiotherapy	R	F	2.0	313
1	2	2	c	5	Z	2	radiotherapy	S	F	2.0	313
2	3	10	e	1	X	2	anesthesia	S	E	2.0	313
3	4	26	b	2	Y	2	radiotherapy	R	D	2.0	313
4	5	26	b	2	Y	2	radiotherapy	S	D	2.0	313

```
4   5   26   b   2   1   2   radiotherapy   3   D   2.0   313
```

In [17]:
```
train.isnull().sum()
```

Out[17]:
```
case_id                            0
Hospital_code                      0
Hospital_type_code                 0
City_Code_Hospital                 0
Hospital_region_code               0
Available Extra Rooms in Hospital  0
Department                         0
Ward_Type                          0
Ward_Facility_Code                 0
Bed Grade                          0
patientid                          0
City_Code_Patient                  0
Type of Admission                  0
Severity of Illness                0
Visitors with Patient              0
Age                                0
Admission_Deposit                  0
Stay                               0
dtype: int64
```

In [18]:
```
train = train.to_csv('final_train_data.csv', index=False)
```

In [19]:
```
test = pd.read_csv(r'C:\Users\mohan\OneDrive\Documents\IBM_Project\Healthcare_Data\test_data.csv')
```

In [20]:
```
test.head()
```

Out[20]:

	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available Extra Rooms in Hospital	Department	Ward_Type	Ward_Facility_Code	Bed Grade	patien
0	318439	21	c	3	Z	3	gynecology	S	A	2.0	170
1	318440	29	a	4	X	2	gynecology	S	F	2.0	170

```
Stay                                  0
dtype: int64
```

In [11]:
```
train['Bed Grade'].value_counts()
```

Out[11]:
```
2.0    123671
3.0    110583
4.0     57566
1.0     26505
Name: Bed Grade, dtype: int64
```

In [12]:
```
train['Bed Grade'].unique()
```

Out[12]:
```
array([ 2.,  3.,  4.,  1., nan])
```

In [13]:
```
train.shape
```

Out[13]:
```
(318438, 18)
```

In [14]:
```
train.dropna(inplace=True)
```

In [15]:
```
train.shape
```

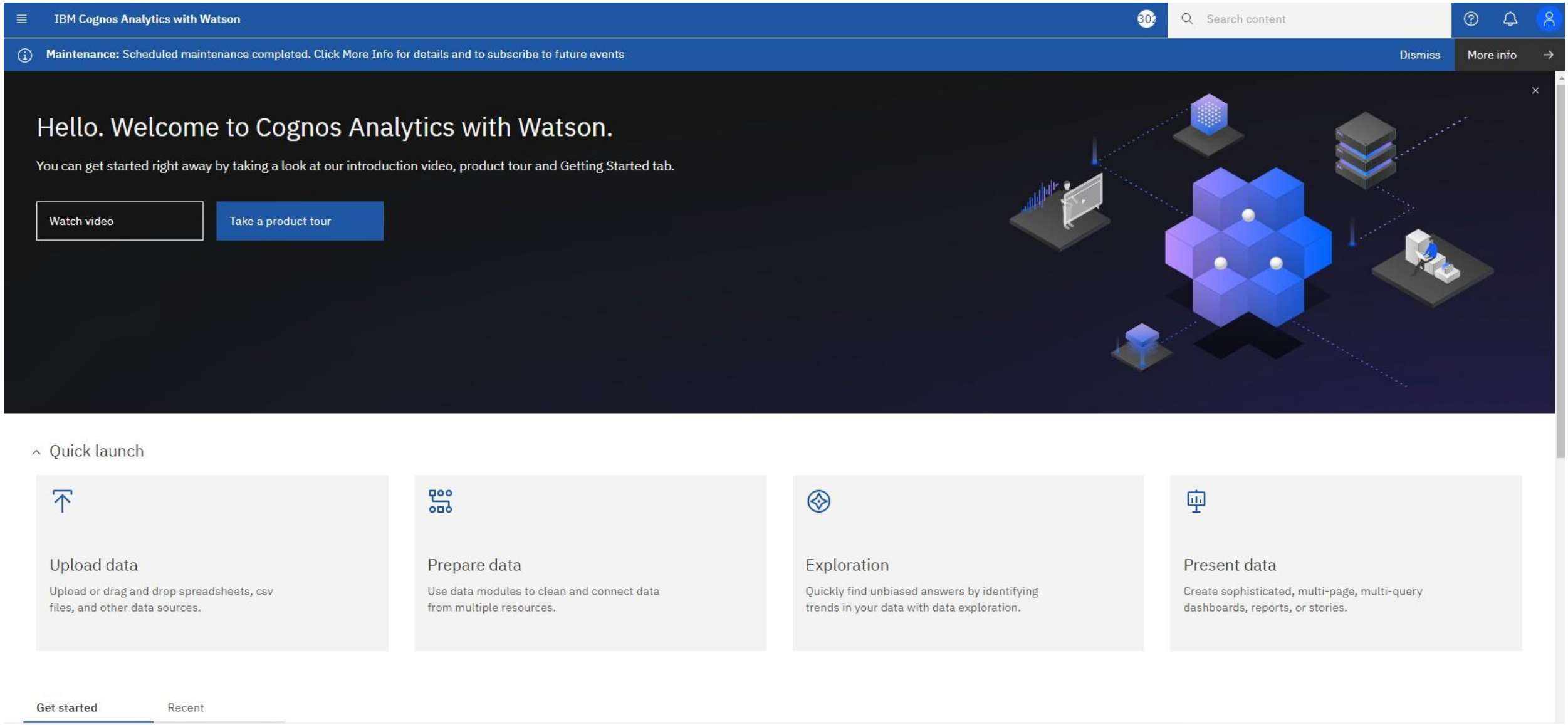
Out[15]:
```
(313793, 18)
```

In [16]:
```
train.head()
```

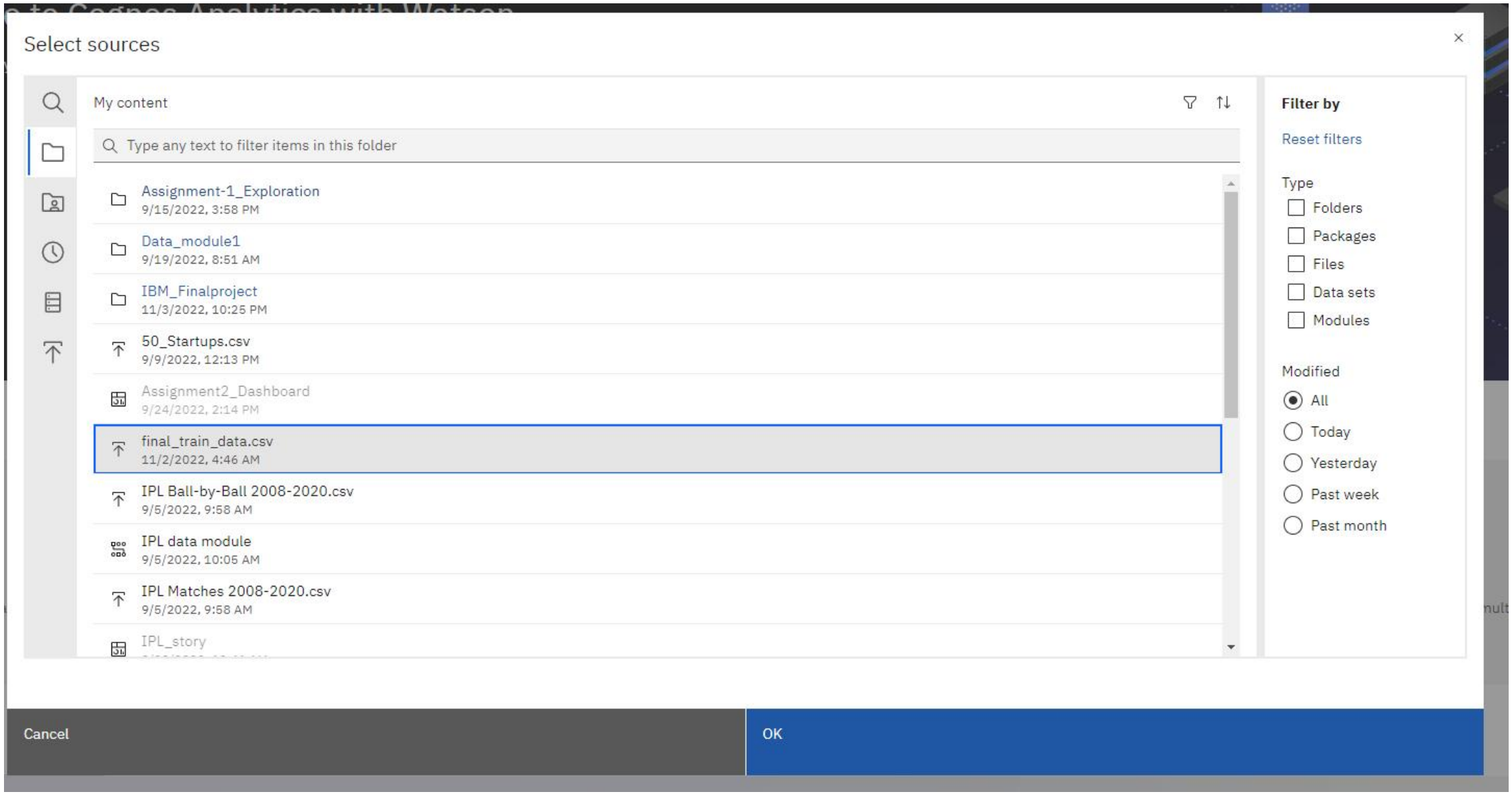
Out[16]:

	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available Extra Rooms in Hospital	Department	Ward_Type	Ward_Facility_Code	Bed Grade	patien
0	1	8	c	3	Z	3	radiotherapy	R	F	2.0	313
1	2	2	c	5	Z	2	radiotherapy	S	F	2.0	313
2	3	10	e	1	X	2	anesthesia	S	E	2.0	313
3	4	26	b	2	Y	2	radiotherapy	R	D	2.0	313

Signing in to the IBM Cognos tool:



Selecting the dataset to upload into the Cognos:



Uploading the dataset to perform the preparation and visualization: