

# DATA GATHERING AND DATA PRE-PROCESSING

Team ID	PNT2022TMID37553
Project Name	Analytics for Hospital Health Data

The image displays two screenshots of the Kaggle website. The top screenshot shows the Kaggle Datasets page, which includes a search bar, a sidebar with navigation options (Home, Competitions, Datasets, Code, Discussions, Learn, More, Your Work, Recently Viewed, Data Gathering), and a main section titled 'Datasets'. The 'Trending Datasets' section features four featured datasets: 'Amazon Reviews on Women Dresses' (updated 6 days ago), 'Video Game Sales by Genre' (updated 4 days ago), 'Vehicle Models' (updated 23 days ago), and 'Diets, Recipes And Their Nutrients' (updated 17 days ago). The bottom screenshot shows the Kaggle user profile page for 'mithuladhithya' (User ID 12228571). The profile includes a header with the user's name and a 'Novice' badge, a navigation bar with links to Home, Competitions, Datasets, Code, Discussion, Followers, Notifications, and Account, and a main section titled 'Account (User ID 12228571)'. The account details include User Name (mithuladhithya), Email Address (mithuladhithyasridhar@gmail.com), Phone Verification (Not verified), Email Preferences, and API access (Using Kaggle's beta API).

Colaboratory interface showing a Jupyter Notebook with the following code:

```
[1] !pip install -q kaggle
[2] !mkdir ~/.kaggle
[3] !cp kaggle.json ~/.kaggle/
[4] !kaggle datasets download -d mithuladhithya/data-gathering
```

Warning: Your Kaggle API key is readable by other users on this system! To fix this, you can download data-gathering.zip to /content and then unzip it.

Download progress: 0% 0.00/1.18M [00:00<?, 78/s] to 100% 1.18M/1.18M [00:00<00:00, 104MB/s]

Files in the left sidebar:

- sample\_data
- data-gathering.zip
- kaggle.json

RAM: 1.18M / 1.18M, Disk: 85.17 GB available.

IBM Cloud Dashboard interface showing various resources and products.

Search resources and products...

Dashboard

For you

- Build**: Explore IBM Cloud with this selection of easy starter tutorials and services.
- Use Watson Studio**: Watson Studio provides a suite of tools and a collaborative environment for data scientists, developers and domain experts. (Popular, 2 min)
- Set up your IBM Cloud account**: Learn how to set up your IBM Cloud account, manage your account settings, organize resources, and control access to those resources. (Getting started, 10 min)
- Explore tutorials**: Try out a variety of tutorials to get you started with IBM Cloud or help you with more complex scenarios. (Getting started, 10 min)
- Discover the Watson Internet of Things (IoT) Platform**: Use the built-in web console dashboards to monitor your IoT data and analyze it in real time. (Getting started, 10 min)
- Build a web app with Watson Speech to Text**: Deploy a conversational interface compatible with any application, device, or channel. (Getting started, 15 min)

News

- TrustRadius Best Software: Five IBM Offerings to Make the List
- Announcing IBM Cloud Pak for Network Automation Version 2.4
- No Prerequisites for IBM Cloud Certifications
- IBM Tech Now: October 24, 2022

Recent support cases

Planned maintenance

IBM Cloud status

embedded web application xMeet - qdt-vasq-hgp xMy IBM xHome xDownload xResource list - IBM Cloud x

cloud.ibm.com/resources

Skip to contentSearch resources and products...CatalogManageMithuladhithya S S's Ac...

Resource list

Create resource +

Name	Group	Location	Product	Status	Tags
Filter by name or IP address...	Filter by group or org...	Filter...	Filter...	Filter...	Filter...
Compute (0)					
Containers (0)					
Networking (0)					
Storage (0)					
AI / Machine Learning (0)					
Analytics (0)					
Blockchain (0)					
Databases (1+)					
Developer tools (0)					
Logging and monitoring (0)					
Migration (0)					
Integration (0)					

https://cloud.ibm.com/resources#main-content

26°C Cloudy

embedded web application xMeet - qdt-vasq-hgp xMy IBM xHome xDownload xService Details - IBM Cloud x

cloud.ibm.com/services/dashdb-for-transactions/cm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2Fa462ebd4e4c45bfb95d62ad4372a22%3Af2333b8...

IBM CloudSearch resources and products...CatalogManageMithuladhithya S S's Ac...

Resource list / Db2-tcActiveAdd tags

DetailsActions...

Manage

Getting startedService credentialsConnections

Getting started

Where can I find my credentials?  
Get your username and password by clicking the "Service Credentials" link to the left and selecting "New Credentials".  
Don't see this menu on the left? Click on "Manage in IBM Cloud" to open the IBM Cloud dashboard.

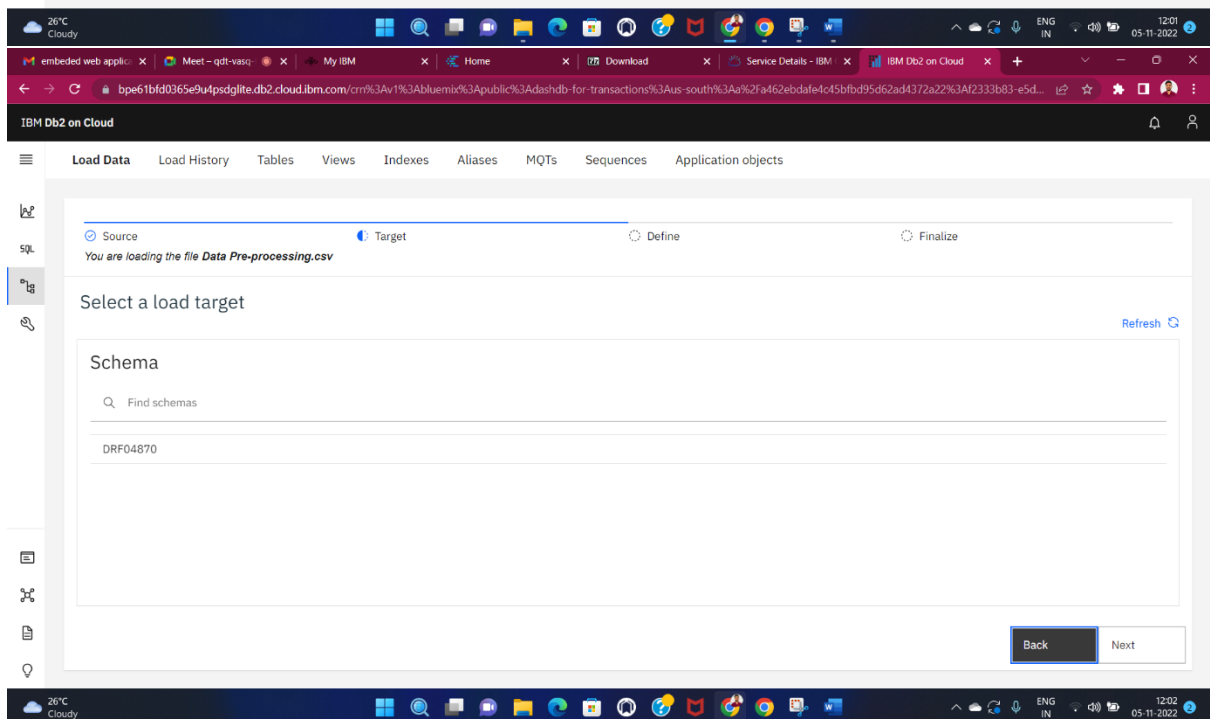
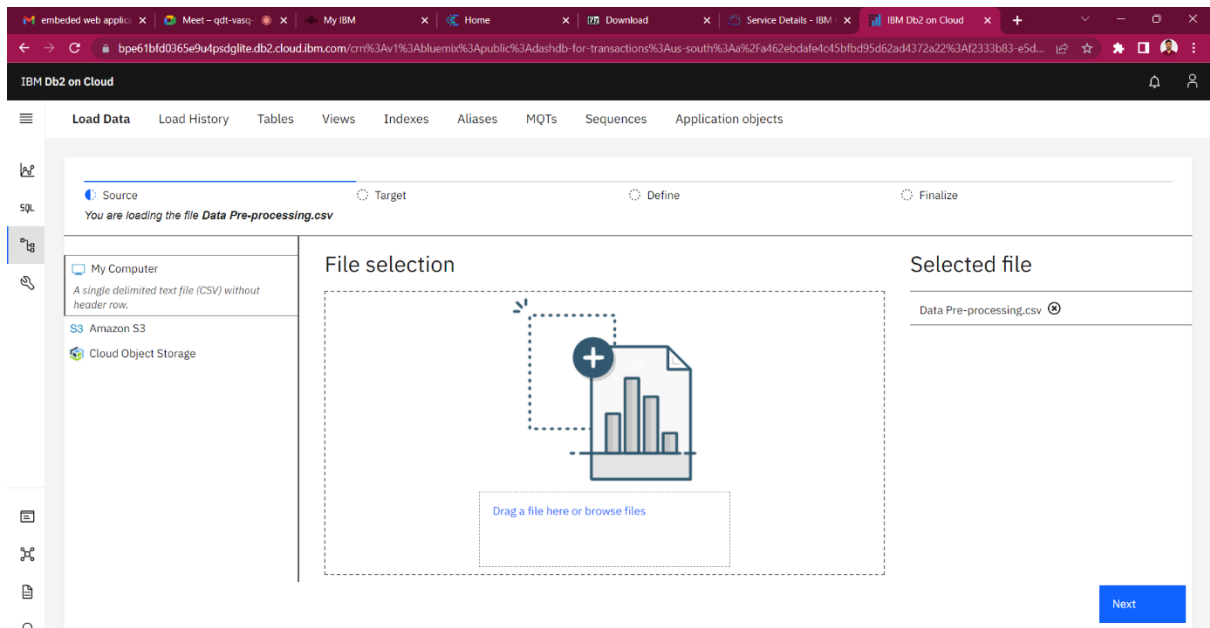
Go to UIGetting started docs

Need help?

Submit a IBM Cloud Support Case to our team.

Support case

26°C Cloudy



IBM Db2 on Cloud

Load Data Load History Tables Views Indexes Aliases MQTs Sequences Application objects

Source Target Define Finalize

You are loading the file **Data Pre-processing.csv** into **DRF04870.DB2DATASET1**

### Review settings

#### Summary

Code page:	1208 (Default)
Separator:	, (Default)
Time format:	HH:MM:SS (Default)
Date format:	YYYY-MM-DD (Default)
Timestamp format:	YYYY-MM-DD HH:MM:SS (Default)
String delimiter:	(Default)

#### Option

Maximum number of warnings

1000

Back Begin Load

26°C Cloudy 12:04 05-11-2022

IBM Db2 on Cloud

Load Data Load History Tables Views Indexes Aliases MQTs Sequences Application objects

Source Target Define Finalize

You are loading the file **Dataset.csv** into **DRF04870.DB2DATASET1**

Code page (character encoding): 1208 (UTF-8) Separator: , Header in first row: Time & date format:

	CASE_ID SMALLINT	CITY_CODE_HOSPITAL SMALLINT	TYPE_OF_ADMISSION VARCHAR	SEVERITY_OF_ILLNESS VARCHAR	AGE VARCHAR	STAY VARCHAR		
1	1	8	c	3	Z	3	radiotherapy	R
2	2	2	c	5	Z	2	radiotherapy	S
3	3	10	e	1	X	2	anesthesia	S
4	4	26	b	2	Y	2	radiotherapy	R
5	5	26	b	2	Y	2	radiotherapy	S
6	6	23	a	6	X	2	anesthesia	S
7	7	32	f	9	Y	1	radiotherapy	S
8	8	23	a	6	X	4	radiotherapy	Q
9	9	1	d	10	Y	2	gynecology	R
10	10	10	e	1	X	2	gynecology	S

Back Next

Dataset.csv Show all X

27°C Mostly cloudy 2019 09-11-2022

Resource list /

Db2-tc

Active

Add tags

Details

Actions...

Manage

Getting started

Service credentials

Connections

Service credentials

You can generate a new set of credentials for cases where you want to manually connect an app or external consumer to an IBM Cloud service. [Learn more](#)

Search credentials...

New credential

Key name	Date created	
Service credentials-1	2022-11-04 5:14 PM	

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Cloudy

12:16

05-11-2022

https://cloud.ibm.com/services/dashdb-for-transactions/cm%3Av1%3Abluemix%3Apublic%3Adashdb-for-transactions%3Aus-south%3Aa%2Fa462ebd4fe4c45bfd95d62ad4372a22%3A2333b8...panelId=credentials

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12:17

05-11-2022

Resource list /

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Service credentials

You can generate a new set of credentials for cases where you want to manually connect an app or external consumer to an IBM Cloud service. [Learn more](#)

Search credentials...

New credential

Key name	Date created	
Service credentials-1	2022-11-04 5:14 PM	

```
{
  "connection": {
    "cli": {
      "arguments": [
        "-u",
        "dri04870",
        "-p",
        "gRierqjGF1kWsdiP",
        "--ssl",
        "--sslCAFile",
        "1cbb1b6-3a1a-4d49-9262-3182a8f7a7c8",
        "-authenticationDatabase",
        "admin",
        "--host",
        "b1bc1829-6145-4cd4-be14-18cf081900bf.clogj3sd0tgtu0lqde00.databases.appdomain.cloud:32304"
      ]
    },
    "bin": "db2",
    "authentication": {

```

26°C

Cloudy

12:17

05-11-2022

IBM Cognos Analytics with Watson

Search content

### Data server connections

Name	Modified
Data-GatheringDB	11/4/2022 6:49 AM
Weather Company	3/31/2022 8:44 PM

## Analytics with Watson.

Production video, product tour and Getting

**Prepare data**

data modules to clean and select data from multiple sources.

**Exploration**

Quickly find unbiased answers by identifying trends in your data with data exploration.

**Present data**

Create sophisticated, multi-page, multi-query dashboards, reports, or stories.

IBM Cognos Analytics with Watson

Search content

### Data-GatheringDB

Owner: MITHU ... 6f17bc

Created: 11/4/2022, 6:49 AM  
Modified: 11/4/2022, 6:49 AM  
Type: Data Server

General **Connections** Permissions

Name	Modified
Data-GatheringDB	11/4/2022 6:49 AM

### Data-GatheringDB

Owner: MITHU ... 6f17bc

Created: 11/4/2022, 6:49 AM  
Modified: 11/4/2022, 6:49 AM  
Type: Connection

General Settings **Schemas** Permissions

Status	Schema name	Tables loaded
<input type="radio"/>	AUDIT	
<input type="radio"/>	DB2GSE	
<input type="radio"/>	DB2INST1	
<input type="radio"/>	DRF04870	
<input type="radio"/>	DSJOBMGR	
<input type="radio"/>	DSSCHED	
<input type="radio"/>	DSSHVS1	
<input type="radio"/>	DSWEB	
<input type="radio"/>	DSWEBSECURITY	

Show system schemas

### DRF04870

Load options: **Tables**

☐ Include ☒ Exclude

Find

DB2DATASET1 ☐

Invert 0 of 1 selected Clear

**Load** **Cancel**

Grid

Relationships

Custom tables

↑↓	Row Id	case_id	Hospital_code	Hospital_type_code	City_Code_Hospital	Hospital_region_code	Available E...in Ho
	1	1	8	c	3	Z	3
	2	2	2	c	5	Z	2
	3	3	10	e	1	X	2
	4	4	26	b	2	Y	2
	5	5	26	b	2	Y	2
	6	6	23	a	6	X	2
	7	7	32	f	9	Y	1
	8	8	23	a	6	X	4
	9	9	1	d	10	Y	2
	10	10	10	e	1	X	2
	11	11	22	g	9	Y	2
	12	12	26	b	2	Y	4
	13	13	16	c	3	7	2

↑↓	icity_Code	Bed Grade	patientid	City_Code_Patient	Type of Admission	Severity of Illness	Visitors with Patient	A
		2	31397	7	Emergency	Extreme	2	
		2			Trauma	Extreme	2	
		2			Trauma	Extreme	2	
		2			Trauma	Extreme	2	
		2			Trauma	Extreme	2	
		2			Trauma	Extreme	2	
		3			Emergency	Extreme	2	
		3			Trauma	Extreme	2	
		4			Trauma	Extreme	2	
		3	31397	7	Trauma	Extreme	2	
		2	31397	7	Urgent	Extreme	2	
		1	31397	7	Urgent	Extreme	2	
		3	31397	7	Emergency	Extreme	2	
		3	31397	7	Urgent	Extreme	2	

Clean - patientid

NULL values

☐ Replace this value with NULL

0

☐ Replace NULL values with

0

Cancel

Clean



Grid

Relationships

Custom tables

↑↓

le\_Patient

Type of Admission

Severity of Illness

Visitors with Patient

Age

Emergency

Trauma

Trauma

Trauma

Trauma

Trauma

Emergency

Trauma

Trauma

Urgent

Urgent

Emergency

Urgent

Extreme

Extreme

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51-60

Properties

×

General

Navigation paths

Label

Stay

Hide from users

Expression

View or edit >

Usage

Identifier

▼

Aggregate

Count Distinct

▼

Data type

Text

Represents

Default

▼

Description

ⓘ

Comments

ⓘ