

Smartinternz IBM Hack Challenge

OTT Platform Analytics

By: Russa Pal

Introduction

The aim of this project is to work on the problem statement & create a feasible solution for it.

I have discovered & applied my learning to find the appropriate solution.

The IBM services which are used to solve the problem statements are as follows:

1. IBM Watson Assistant
2. IBM Cloud
3. IBM Watson studios
4. IBM Cognos Analytics.

I have mentioned the steps and images for solving the problem (as possible)

This project has enhanced my learning.

What is the problem?

In recent years, the advent of various OTT platforms has introduced a novel issue: the difficulty in choosing which OTT platform to subscribe to. Netflix, Amazon Prime, and Disney+ are some of the many OTT services that are well-known to the public, but the number of services is growing as localized OTT platforms like Watcha (South Korea) and Voot (India) are joining the line.

As these platforms are coming up with new ways to stand out among competitors by presenting original content, it is evident that more customers are being lost in deciding which platform would be suitable for their use. Moreover, most of the available recommendation systems are focused on suggesting the content but not the platforms that hold and provide those contents. To ease the choice dilemma, our study aims to present a guideline for choosing the appropriate OTT platform that fits one's personal preferences. Therefore, it is the right time to analyze different OTT platforms and provide useful information for people who are not able to decide which platform fits them best.

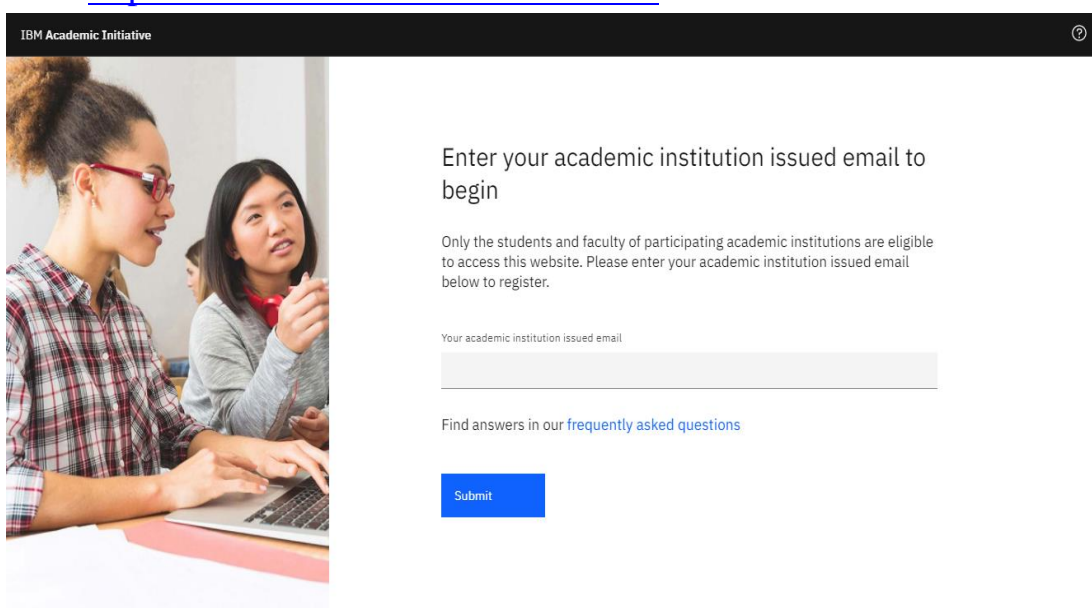
Solution:

The idea presents an analysis of two OTT platforms — Netflix, Amazon Prime. Along with movie datasets for each platform, we incorporated two additional datasets: the IMDb movie dataset to investigate the distribution of movie genres, age limits, and their average ratings by the help of IBM Cognos Analytics.

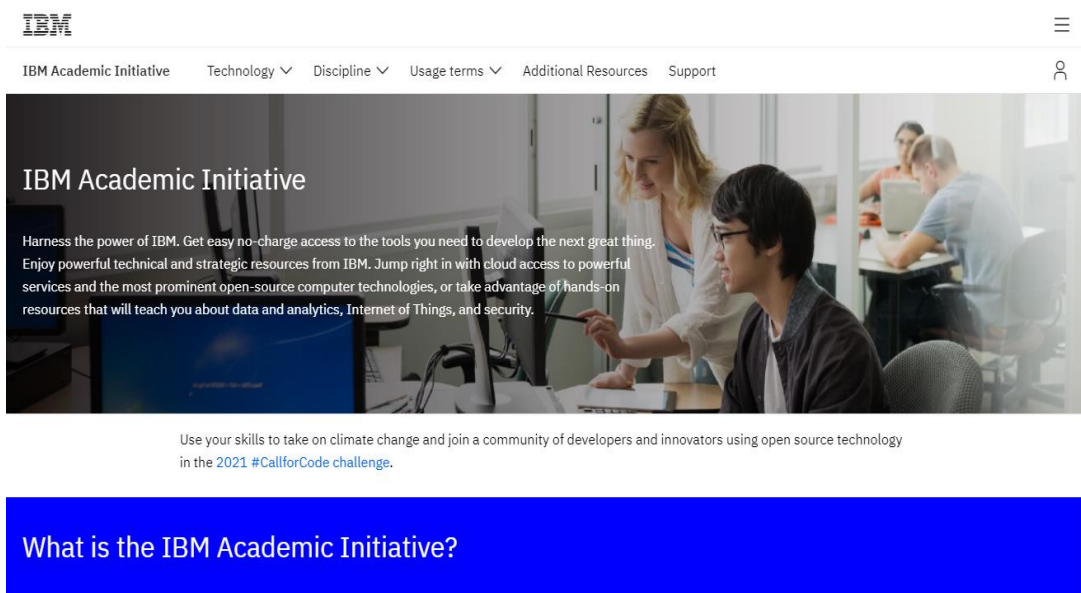
A: Using Cognos Analytics for visualizing the data

For Netflix

1. Visit <https://www.ibm.com/academic/home>

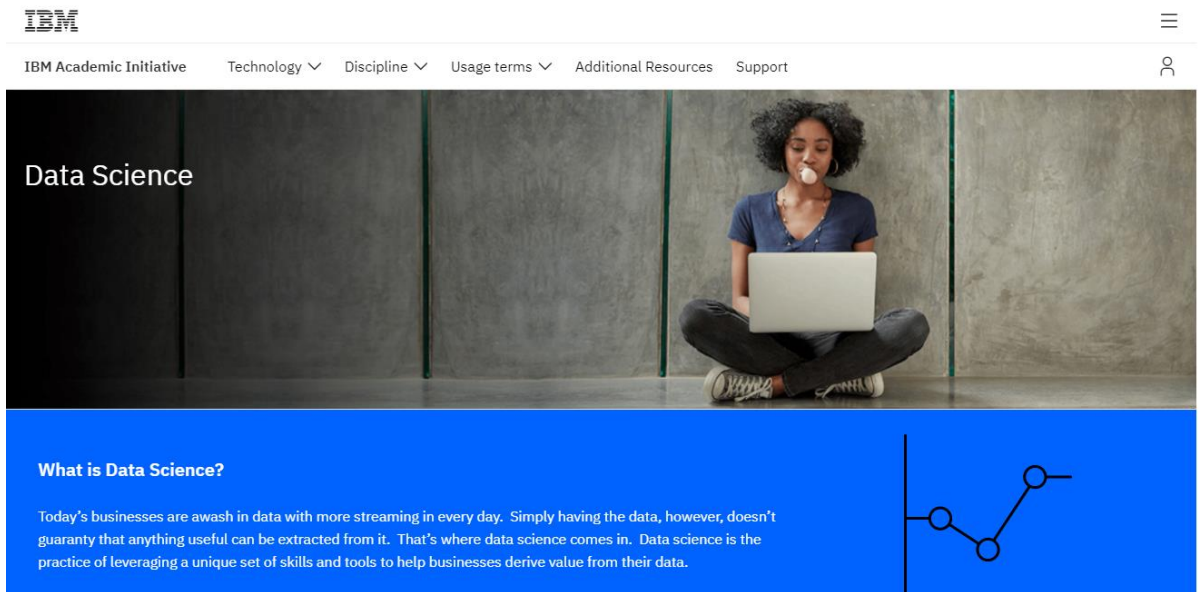


2. Login with your IBMid
3. After Login the below page will get open.



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4. Click on Technology drop-down menu . Choose Datascience

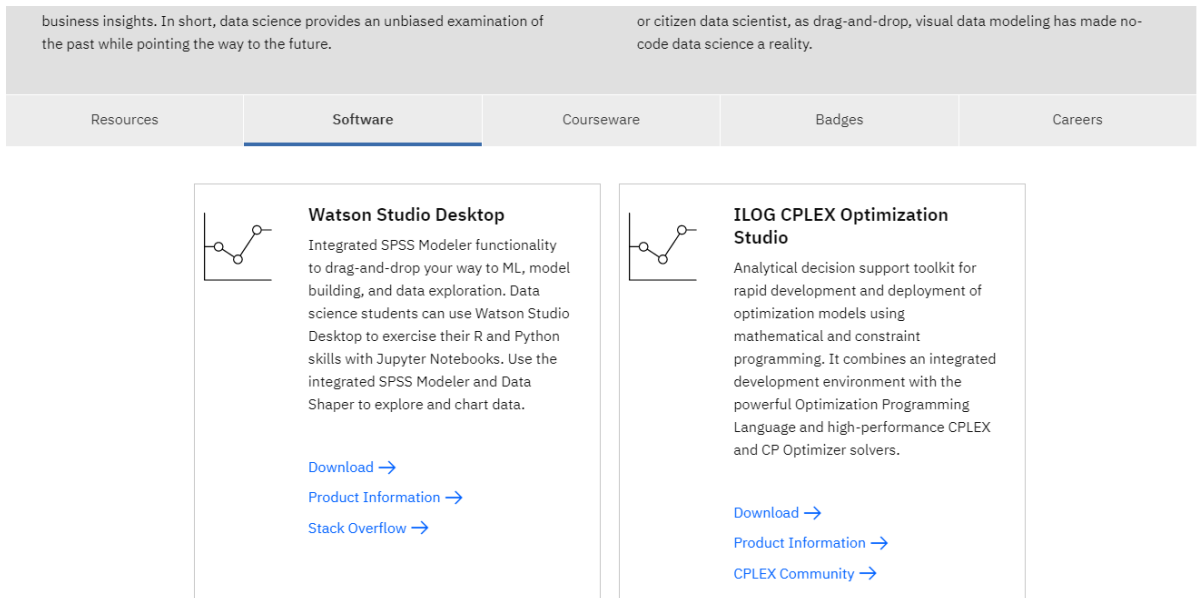


Data Science

What is Data Science?

Today's businesses are awash in data with more streaming in every day. Simply having the data, however, doesn't guaranty that anything useful can be extracted from it. That's where data science comes in. Data science is the practice of leveraging a unique set of skills and tools to help businesses derive value from their data.

5. Go to software section . Click on access now in Cognos Analytics.



business insights. In short, data science provides an unbiased examination of the past while pointing the way to the future.

or citizen data scientist, as drag-and-drop, visual data modeling has made no-code data science a reality.

Resources **Software** **Courseware** **Badges** **Careers**

Watson Studio Desktop

Integrated SPSS Modeler functionality to drag-and-drop your way to ML, model building, and data exploration. Data science students can use Watson Studio Desktop to exercise their R and Python skills with Jupyter Notebooks. Use the integrated SPSS Modeler and Data Shaper to explore and chart data.

[Download →](#)

[Product Information →](#)

[Stack Overflow →](#)

ILOG CPLEX Optimization Studio

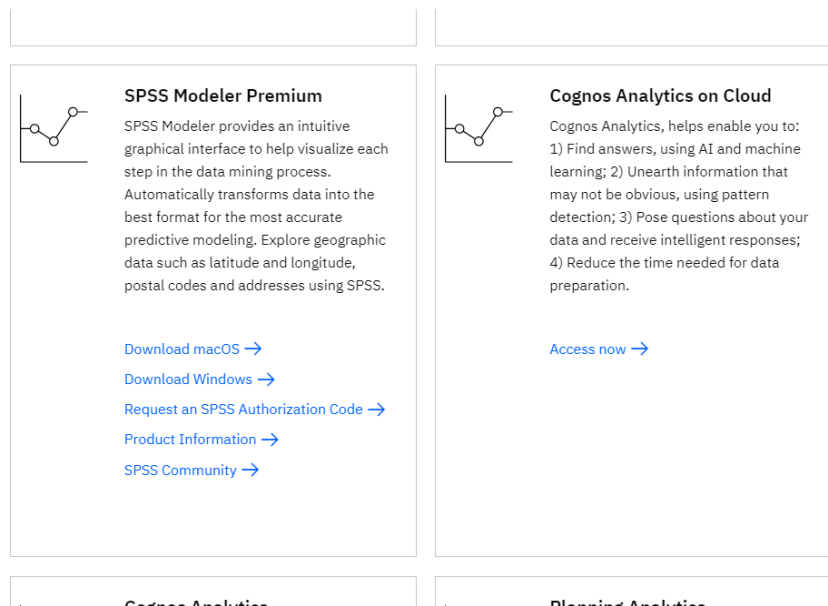
Analytical decision support toolkit for rapid development and deployment of optimization models using mathematical and constraint programming. It combines an integrated development environment with the powerful Optimization Programming Language and high-performance CPLEX and CP Optimizer solvers.

[Download →](#)

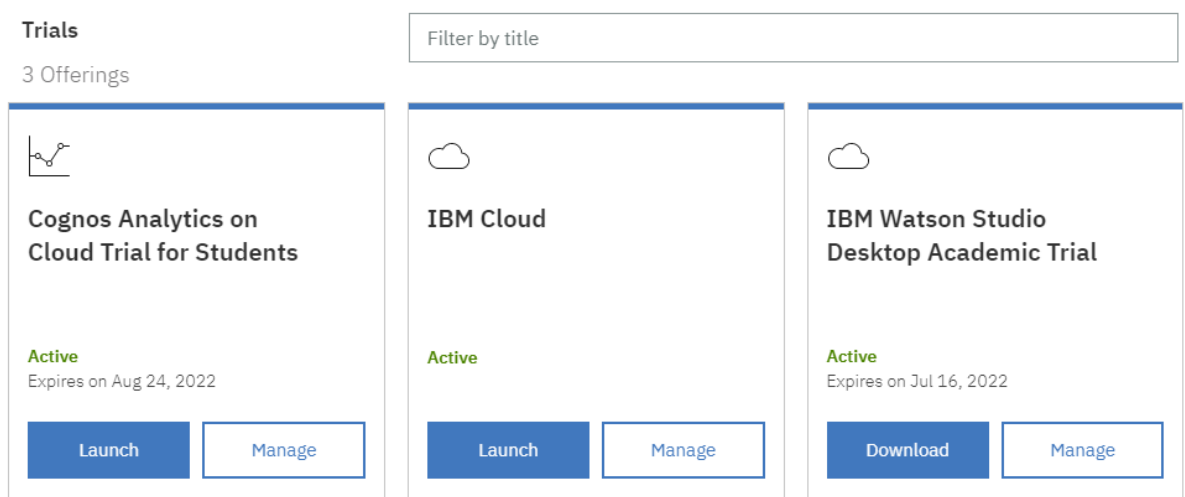
[Product Information →](#)

[CPLEX Community →](#)

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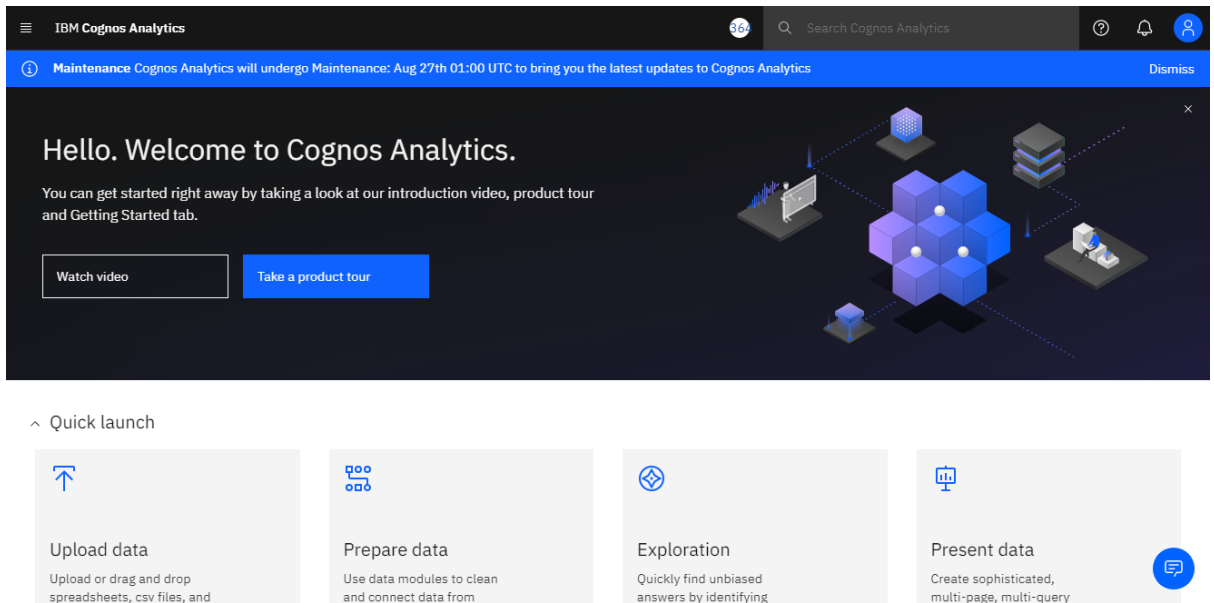


6. Your dashboard will get open and then click on launch.
Products

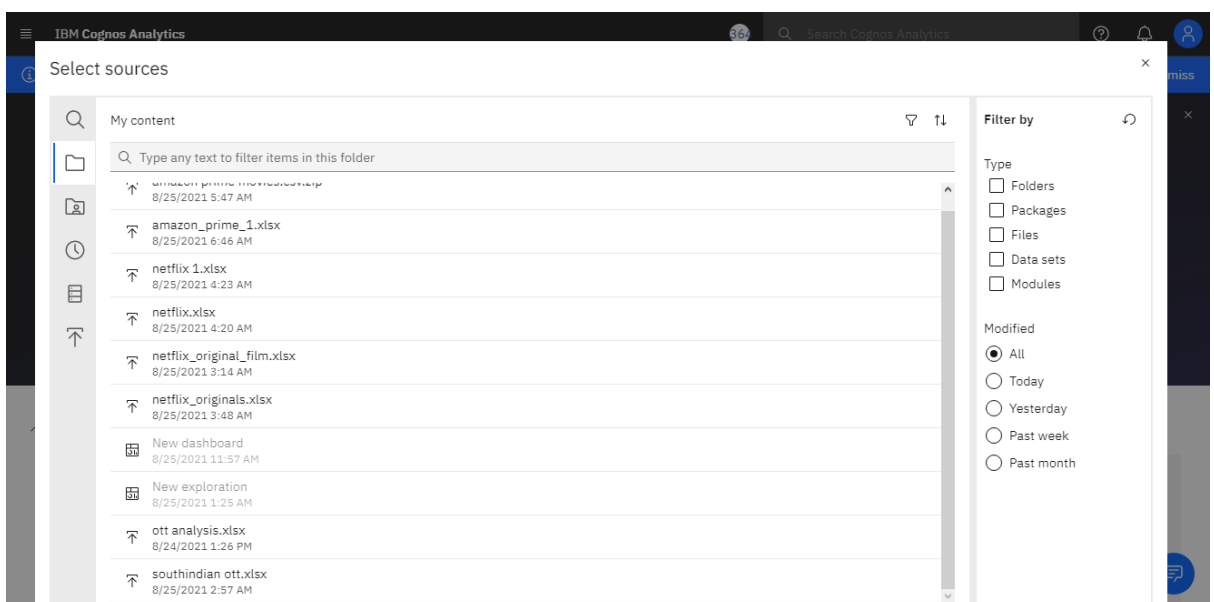


7. Your cognos analytics dashboard will get open.

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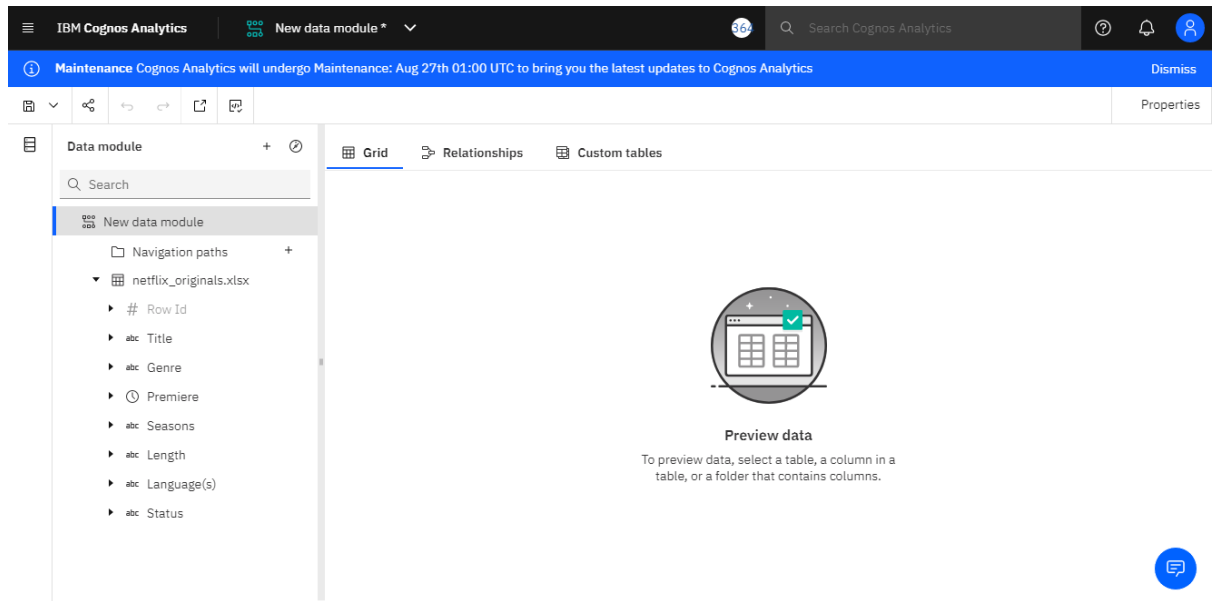


8. Click on upload data. The dataset should be prepared in excel sheet or csv format.
9. Then click on prepare data it will help you to clean and connect dataset.



10. After successfully choosing the dataset we land on the below page:

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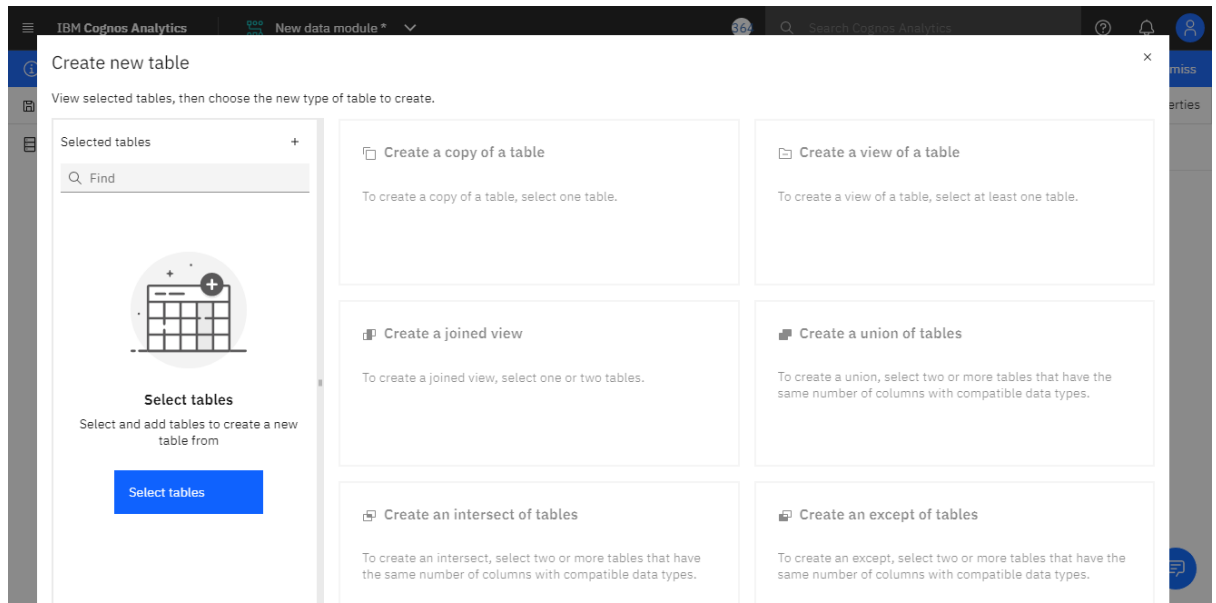


11. We can click on grid to view the data.

Row Id	Title	Genre	Premiere	Seasons	Length
1	Sacred Games	Crime thriller	5 Jul, 2018	2 seasons, 16 episodes	43-58 mi
2	Ghoul	Horror	24 Aug, 2018	3 episodes	44-50 mi
3	Selection Day	Sports drama	28 Dec, 2018	2 parts, 12 episodes	19-28 mi
4	Delhi Crime	Police procedural	22 Mar, 2019	1 season, 7 episodes	45-64 mi
5	Leila	Science fiction drama	14 Jun, 2019	1 season, 6 episodes	40-54 mi
6	Typewriter	Horror	19 Jul, 2019	1 season, 5 episodes	43-52 mi
7	Bard of Blood	Espionage thriller	27 Sep, 2019	1 season, 7 episodes	41-50 mi
8	Jamtara - Sabka Number Ayega	Crime drama	10 Jan, 2020	1 season, 10 episodes	23-49 mi
9	Taj Mahal 1989	Romantic comedy	14 Feb, 2020	1 season, 7 episodes	31-36 mi
10	She	Crime drama	20 Mar, 2020	1 season, 7 episodes	31-36 mi

12. By clicking on relationships we can create secondary & view existing dataset & by clicking on the custom table we can create a copy of the table, view of a table, joined view, union of table, intersect of table, excepts of table.

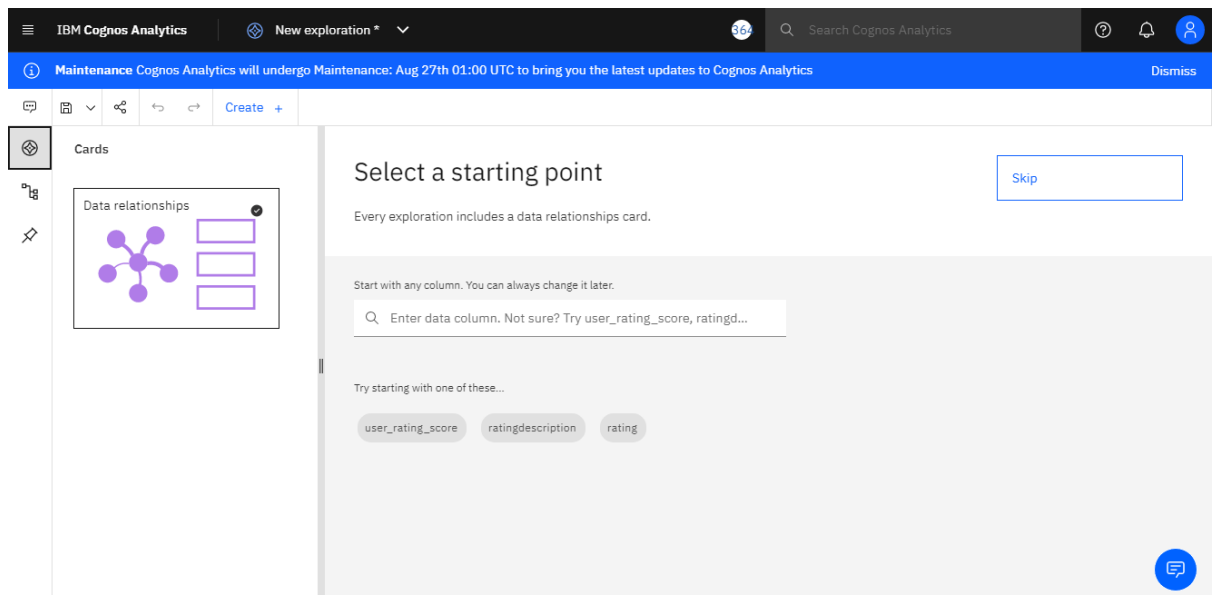
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13. Next we move to the exploration to find unbiased answers of the trend in our data.

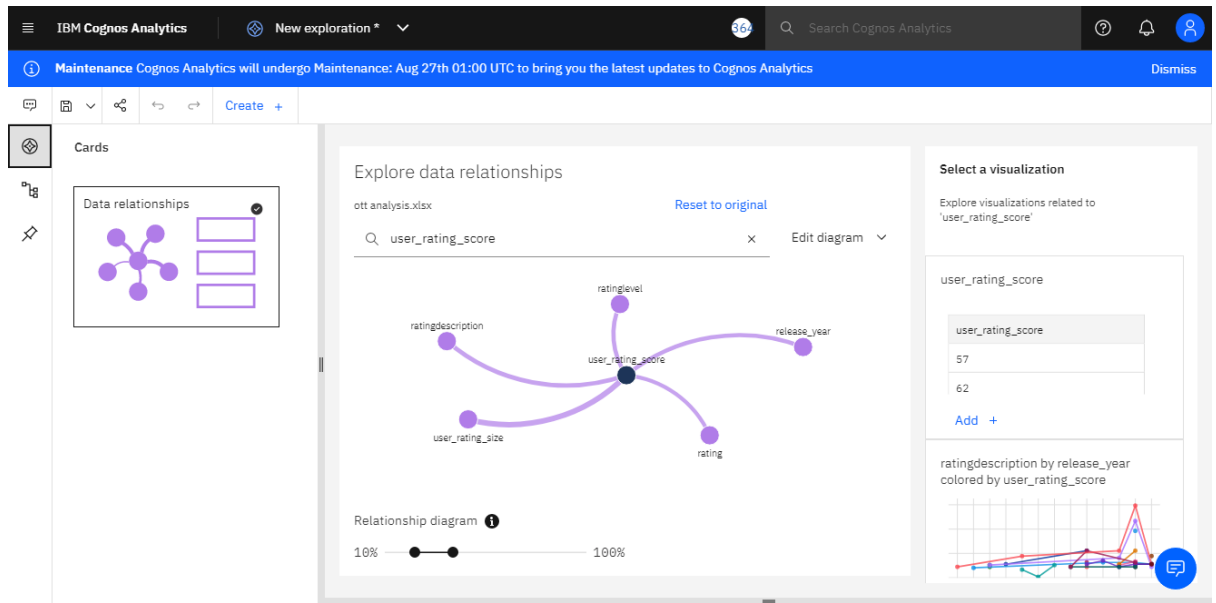
Remember: We need to add the source of the data everytime.

14. We can view the relationship between various dataset by clicking on data relationship. Also, if required we can create relation between dataset.



For example:

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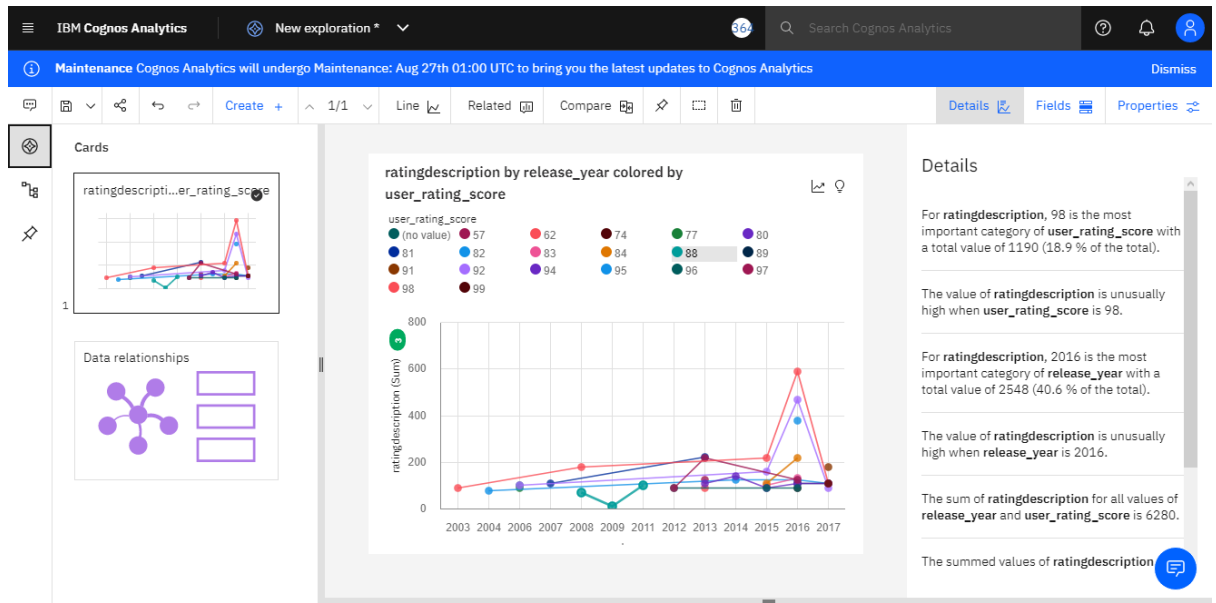
15. Other than this we can also visualize our data for better understanding of the trend.

For eg: a.



b.

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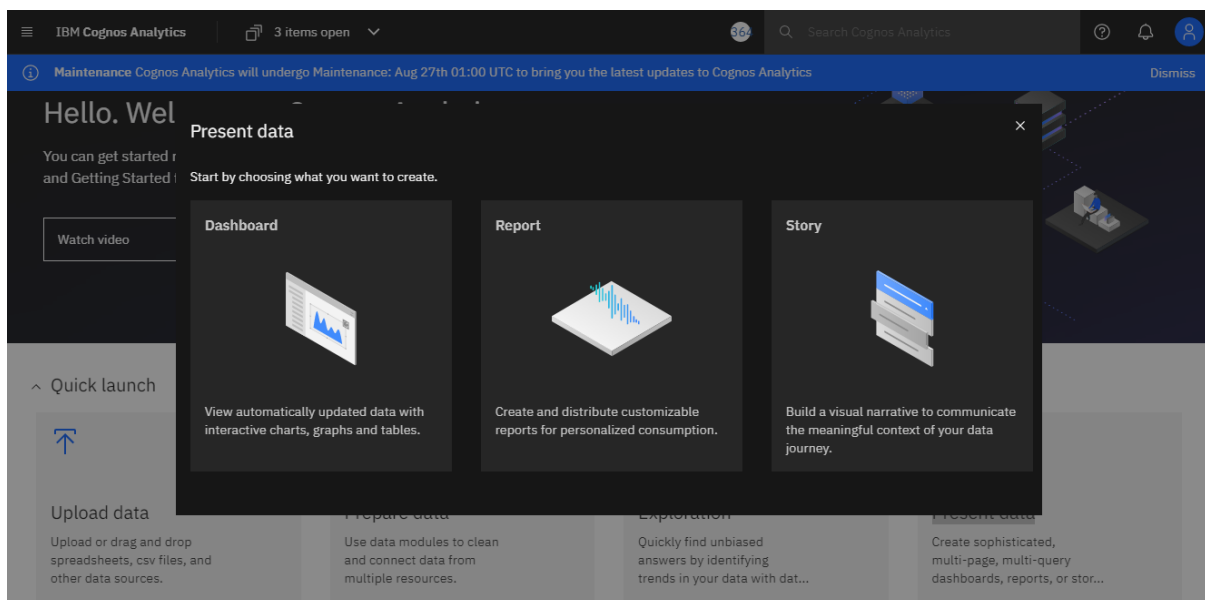
16.Next comes the main process of presenting the data.

We can present the data in the below format:

16.1 Dashboard

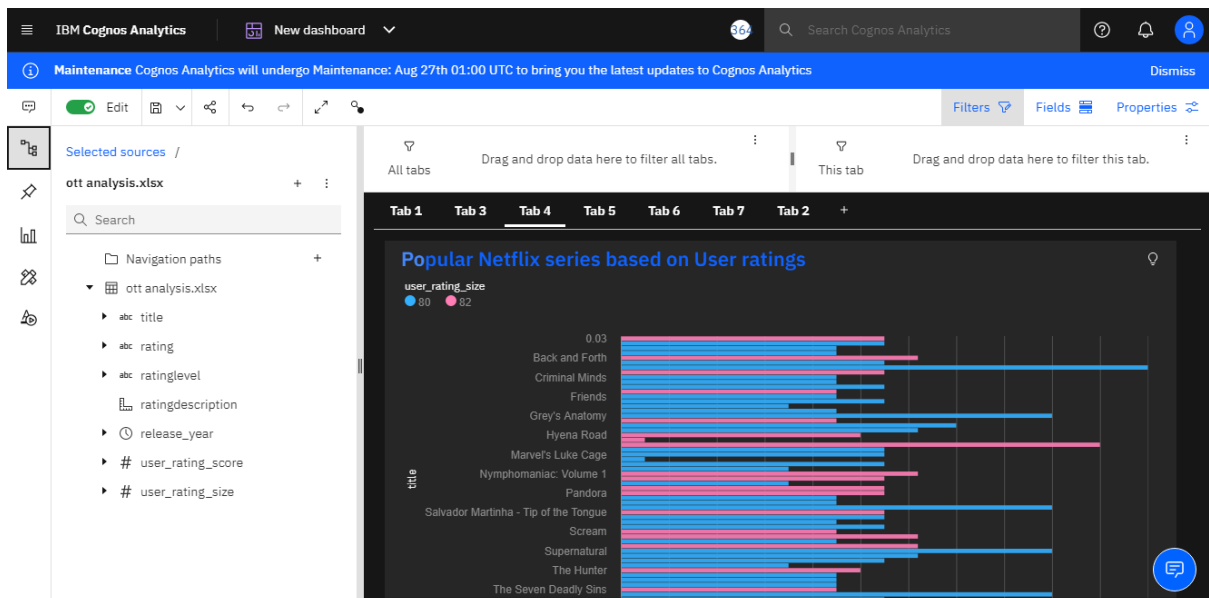
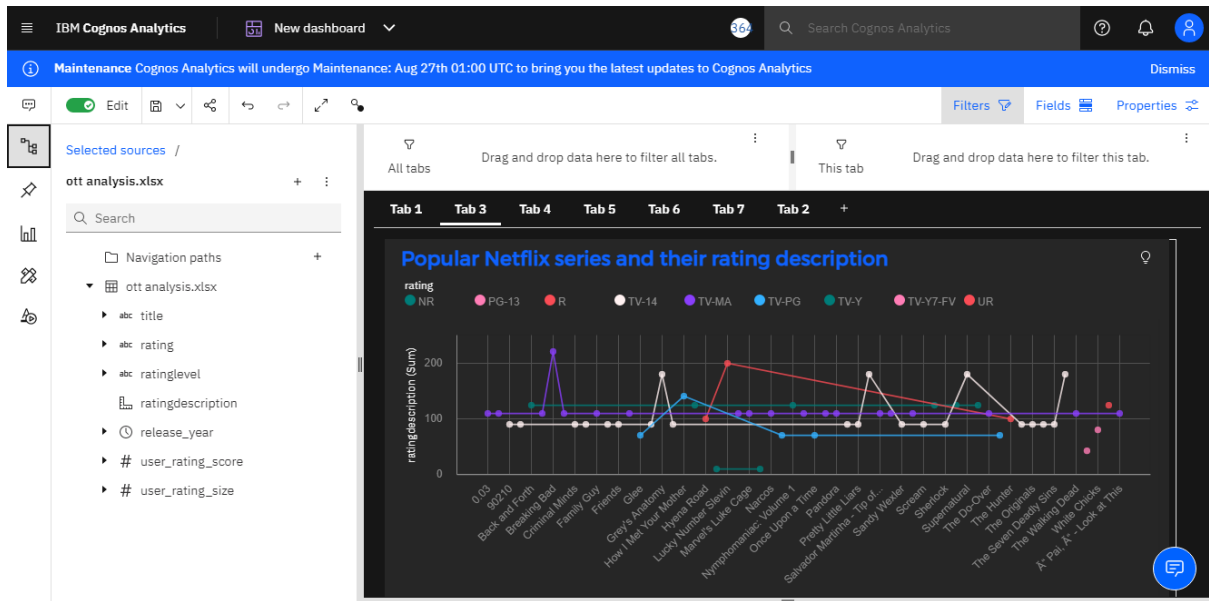
16.2 Report

16.3 Story



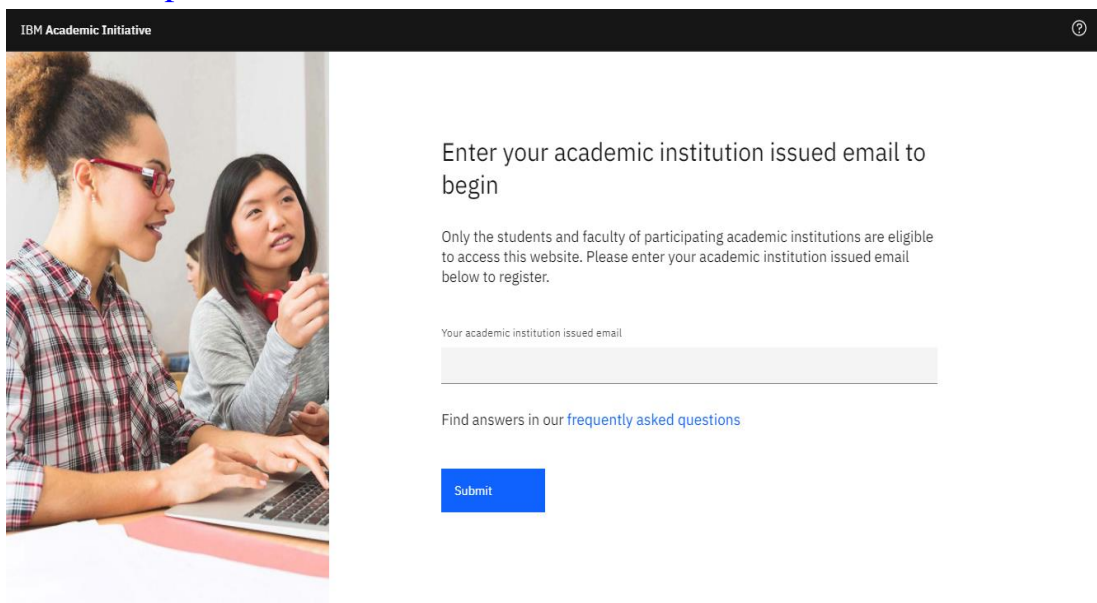
For this project I have choosen dashboard. The below are the few images of the dashboard.

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B: Using Watson Studio for the deployment of the model.

1. Visit <https://www.ibm.com/academic/home>



IBM Academic Initiative

Enter your academic institution issued email to begin

Only the students and faculty of participating academic institutions are eligible to access this website. Please enter your academic institution issued email below to register.

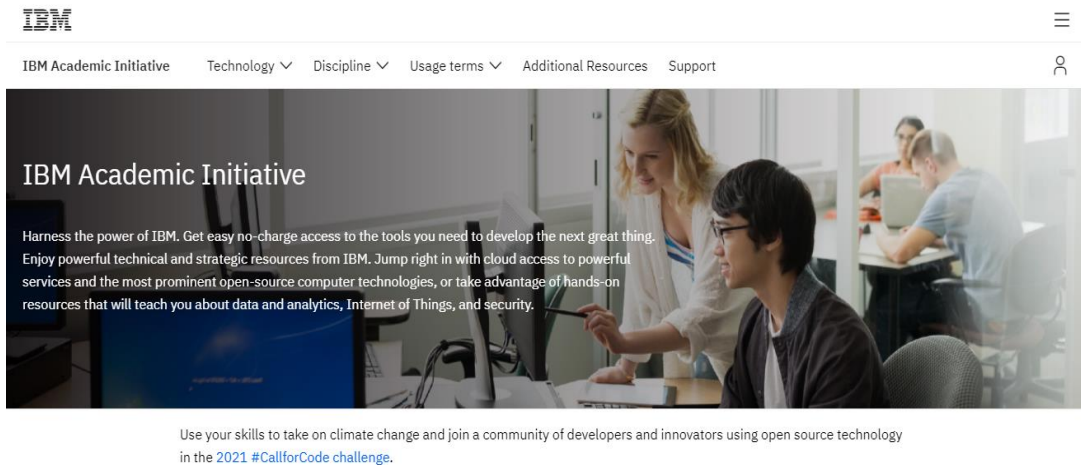
Your academic institution issued email

Find answers in our [frequently asked questions](#)

Submit

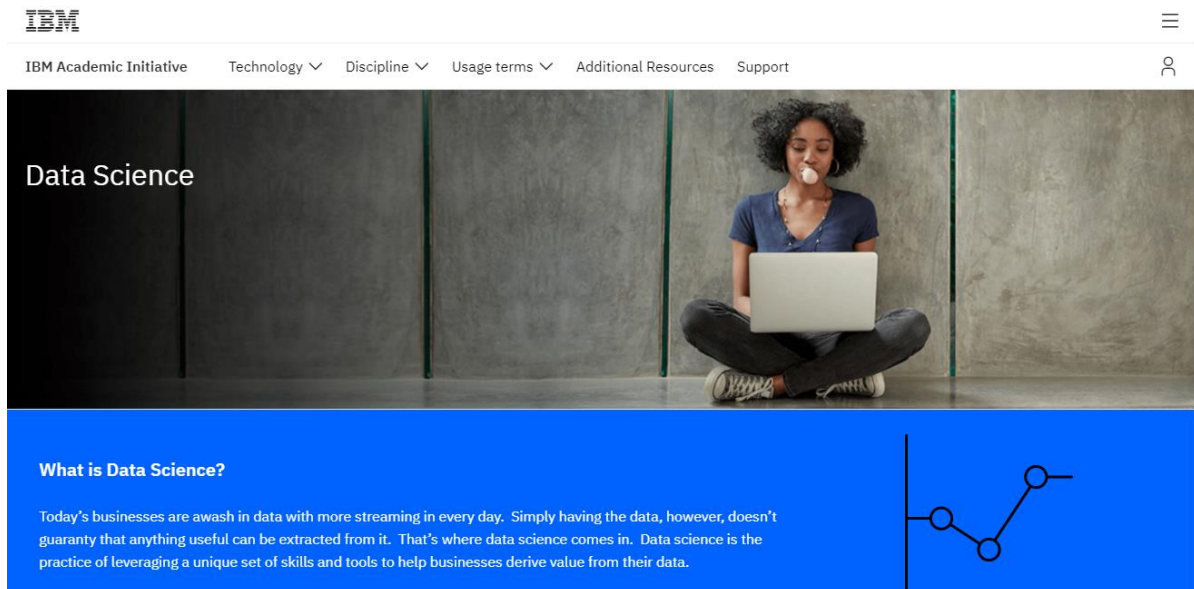
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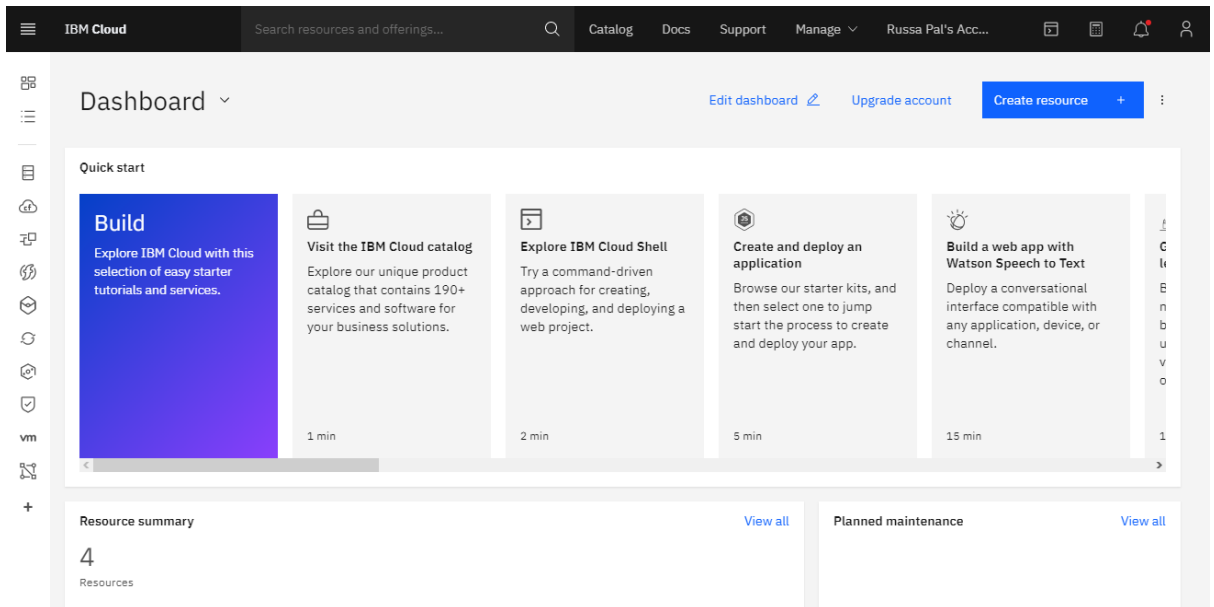
What is the IBM Academic Initiative?

4. Click on Technology drop-down menu . Choose Datascience

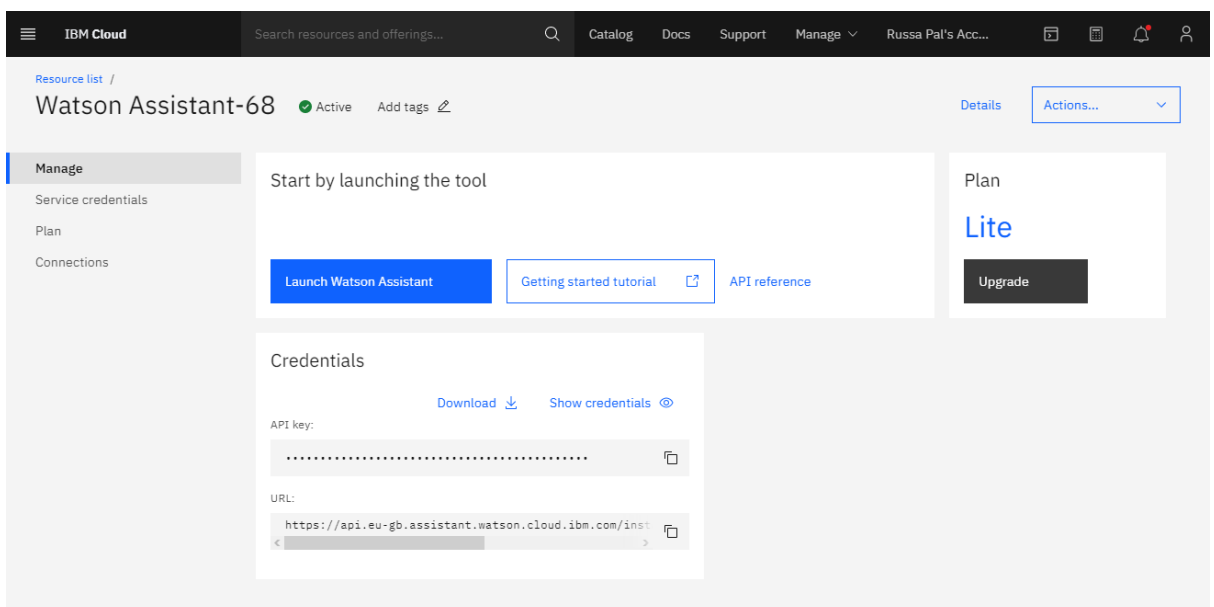


5. Go to IBM Cloud.

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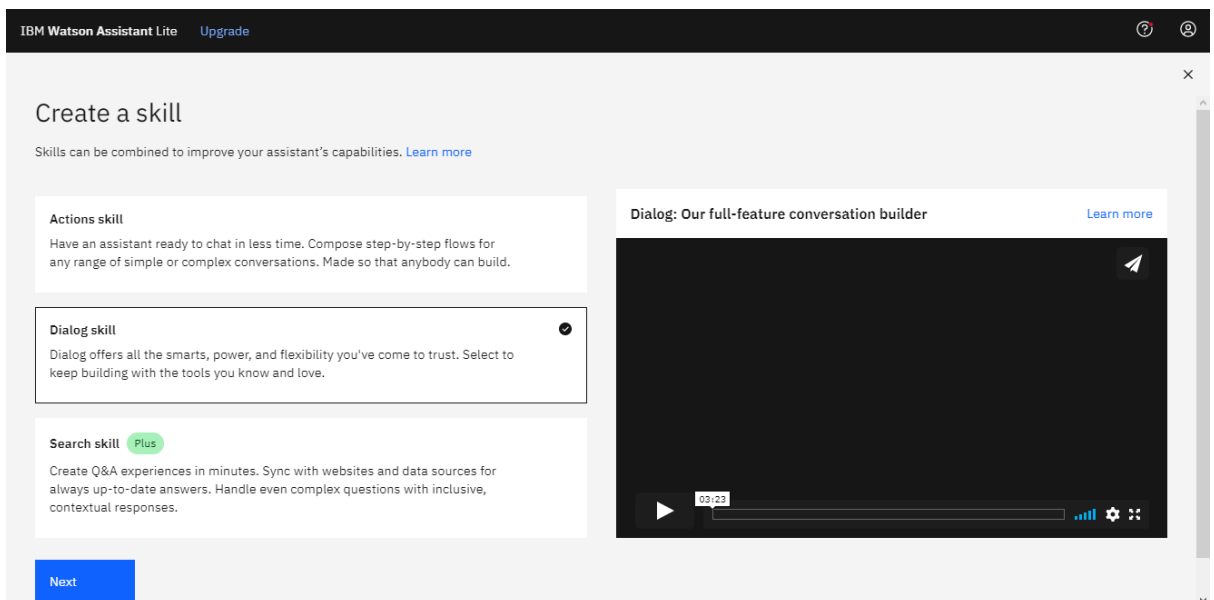
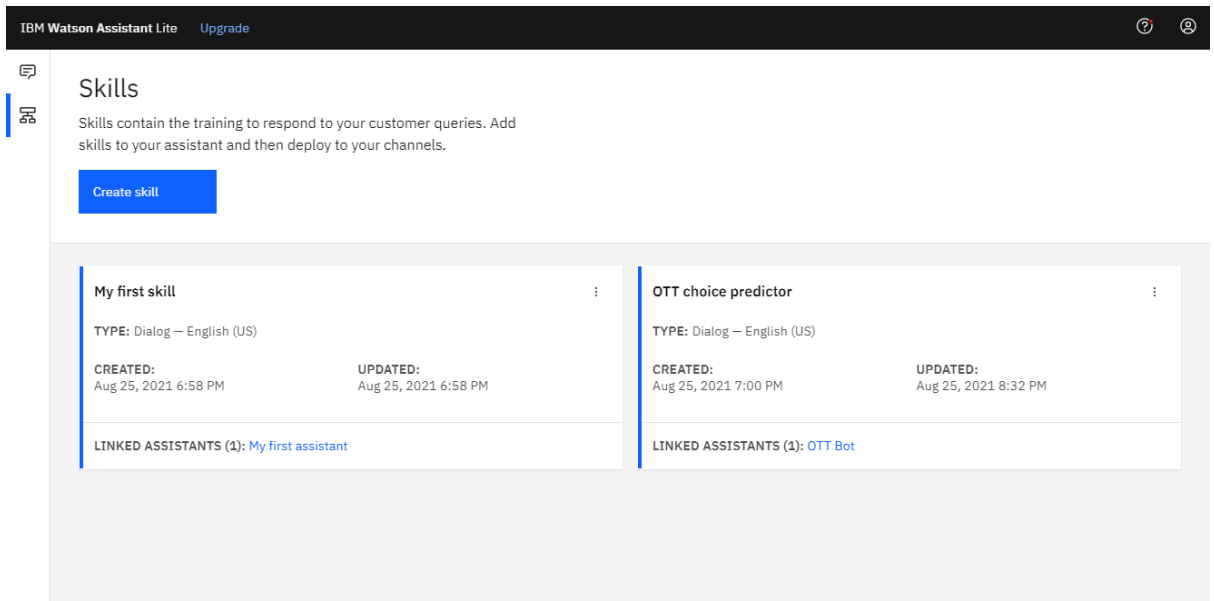


6. Click on resource list and then go to Watson assistant. Then click on launch assistant studio.



7. Next create skill & click on dialog skill . Then click next

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8. Next it depends he create a new dialog skill or upload skill or use sample skill.

The screenshot shows the 'Create dialog skill' interface in IBM Watson Assistant Lite. It includes tabs for 'Create skill', 'Use sample skill', and 'Upload skill'. The 'Create skill' tab is active, showing fields for 'Name' (with a placeholder 'Type skill name here'), 'Description (optional)' (with a placeholder 'Add a description for this skill'), and a 'Language' dropdown menu set to 'English (US)'. A 'Create skill' button is at the bottom.

9. After that we need to create intents & entities along with modifying the dialog.

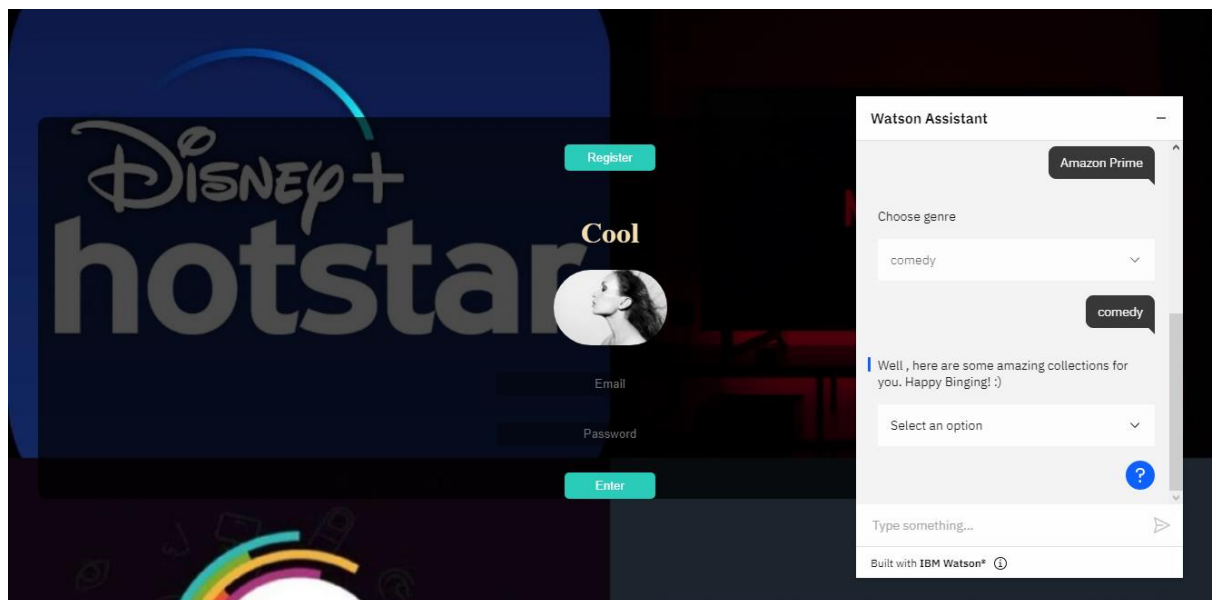
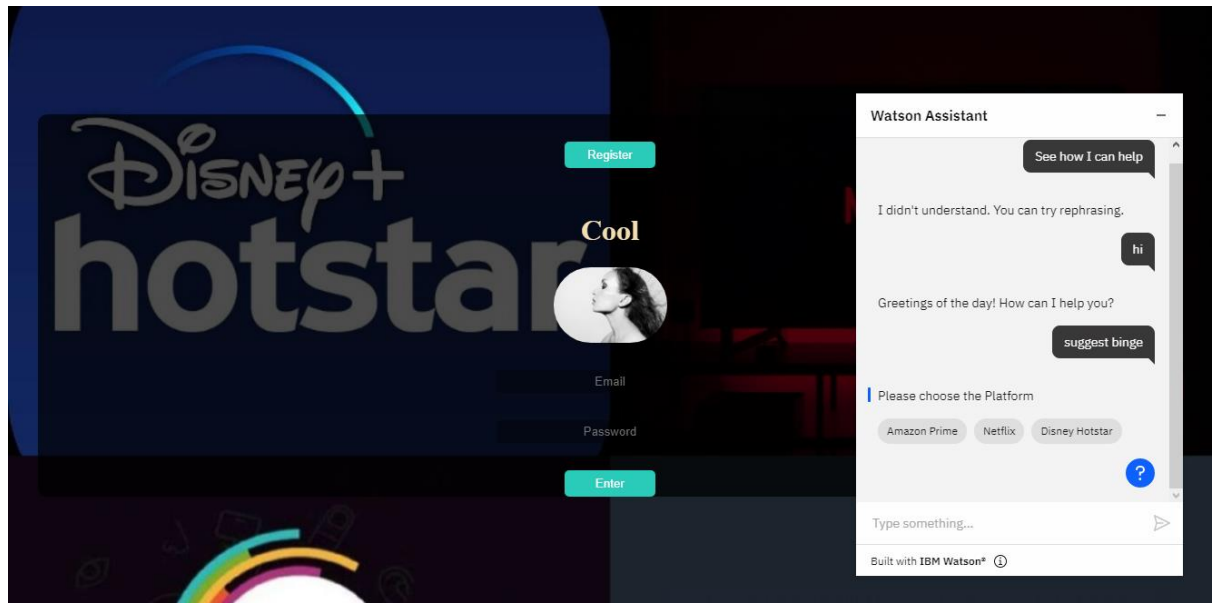
The screenshot shows the 'Intents' management page for the skill 'OTT choice predictor'. A sidebar on the left contains navigation links: Intents, Entities, Dialog, Options, Analytics, Versions, and Content Catalog. The main area displays a table of intents with columns for checkboxes, intent names, descriptions, modified times, and example counts. A 'Create intent' button is in the top right.

<input type="checkbox"/>	Intents (3) ↑	Description	Modified ↑↓	Examples ↑↓
<input type="checkbox"/>	#enquiry1		4 hours ago	3
<input type="checkbox"/>	#genre		4 hours ago	7
<input type="checkbox"/>	#Greeting		5 hours ago	6

Showing 1–3 of 3 intents

10. Next we need to create Assistant. After creation of assistant we can download the json. File or we can copy the code that is found in the embed section to our HTML webpage in script section.

The below are screenshots of bot created in this project.



Conclusion

Completed the project successfully. Screenshots of the same are attached for better understanding of how we can solve and utilize various features of IBM Cloud.

I would like to thank the Smartinternz team for guiding me throughout the project.

