



Gemini Explore - SaaS Version

User Quick Start Guide

Version 2.1

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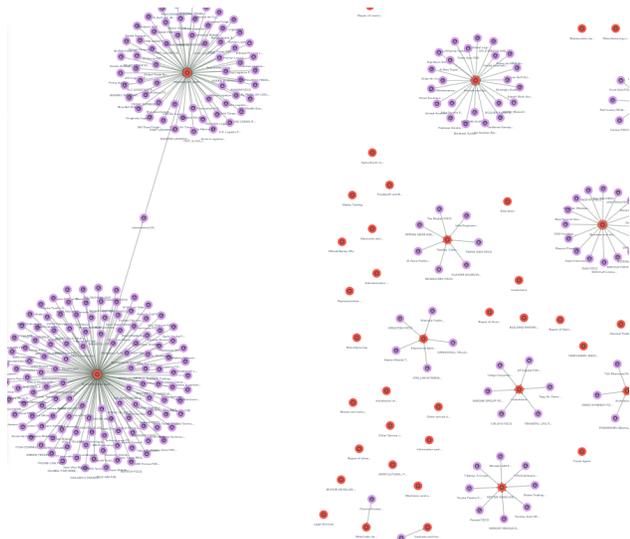
1.0 Introduction

Welcome to the cloud-based version of **Gemini Explore!** This secure environment will offer you the chance to use an intuitive visual-based data exploration tool. With the ability to add multiple sources of data, you are able to visualize and contextualize how they all interact with each other using graph technology. This allows for the discovery of real insight and meaning within your data.

Our **Gemini Explore** graph-based solution is very simple to use;

1. Ingest one or more sources of structured data
2. Create a model based on key header fields from each data source
3. Begin exploring your data using the intuitive Exploration canvas

Source data is currently limited to CSV ingestion with the 'free tier' option, as we continue to improve and add features to the product. Your feedback during this period is both welcomed and encouraged.



Creating a model is simply a case of choosing the CSV headers you want and renaming them if required, to become **Node Categories** or **Properties**. Link the Node Categories by adding a **Relationship** in between, and you have your model, it's that simple.

The **Exploration** canvas will then provide a dynamic multi-layer visualization tool. The user is able to drill-down and interact directly with their data. This process is intuitive, as it mimics the way our brains 'think'. When we discover something interesting, we instinctively want to know more detail and how it may relate to other datasets.

Understanding the connections between data, and deriving meaning from their relationships does not necessarily mean gathering new data. Significant insight can be drawn from your existing data, simply by reframing the problem and looking at it in a new, more connected way.

Gemini Explore helps you to become significantly more productive by quickly discovering connections, relationships and insights within your data, without having to learn a new coding or query language. Using simple observation techniques and the use of a computer mouse and keyboard you can reveal the secrets hidden in plain sight within your data.

2.0 Getting Started with Gemini Explore

If you have already completed the initial ‘sign-on’ process, use the ‘Sign-in’ link at the bottom of the screen from the following URL: <https://cloud.geminidata.com>

Add your sign-in credentials to access your own personal Gemini Explore environment.

2.1 First-time User Sign-on process

To begin your journey with **Gemini Explore**, you will need to create an account. First-time users should enter a valid business email address in the box provided (gmail, hotmail, yahoo accounts are not accepted), agree to the terms, and select the ‘**Create Account**’ button.

Not all graph technologies are created equal

Create a connected view of your business for rapid decision making using the modern graph data platform for everyone.

- ✓ Modern & Cloud Native
- ✓ Connect Existing Graph Database
- ✓ No-Code Data Import & Modeling
- ✓ Intuitive & Personalized Exploration
- ✓ Powerful Reporting
- ✓ Easy Collaboration

Create your Gemini Explore account
Try the modern no-code graph platform free for 14-days

Work Email
enter your email here

I agree to the terms of service

Create Account

[terms of service](#)
Already have an account? [Sign-in](#)

An email containing a verification link will be sent to the registered account which must be acknowledged before you can continue.

The email will take at least two minutes to be returned, and please check your junk/spam folder if you do not receive it.

Create your Gemini Explore account
Try the modern no-code graph platform free for 14-days

✓

Thanks! A verification link has been sent to your email. To activate your account, simply click the verification link in your email. [the email may take up to 2 minutes to arrive]

Getting Started

Your Email Address
mike@msr

First Name: Joe | Last Name: Bloggs

Password
••••••••

- ✓ The password must be at least 8 characters
- ✓ Must contain at least one capital letter
- ✓ Must contain at least one number
- ✓ Must contain at least one symbol character

Confirm Password
••••••••

Continue

Already have an account? [Sign-in](#)

Your web browser will automatically open a new screen requesting login details (opposite).

When creating your account, please enter your first and last names in the boxes provided and supply a password that complies with the criteria requested on the screen.

Select the ‘**Continue**’ button to begin your **Gemini Explore** experience.

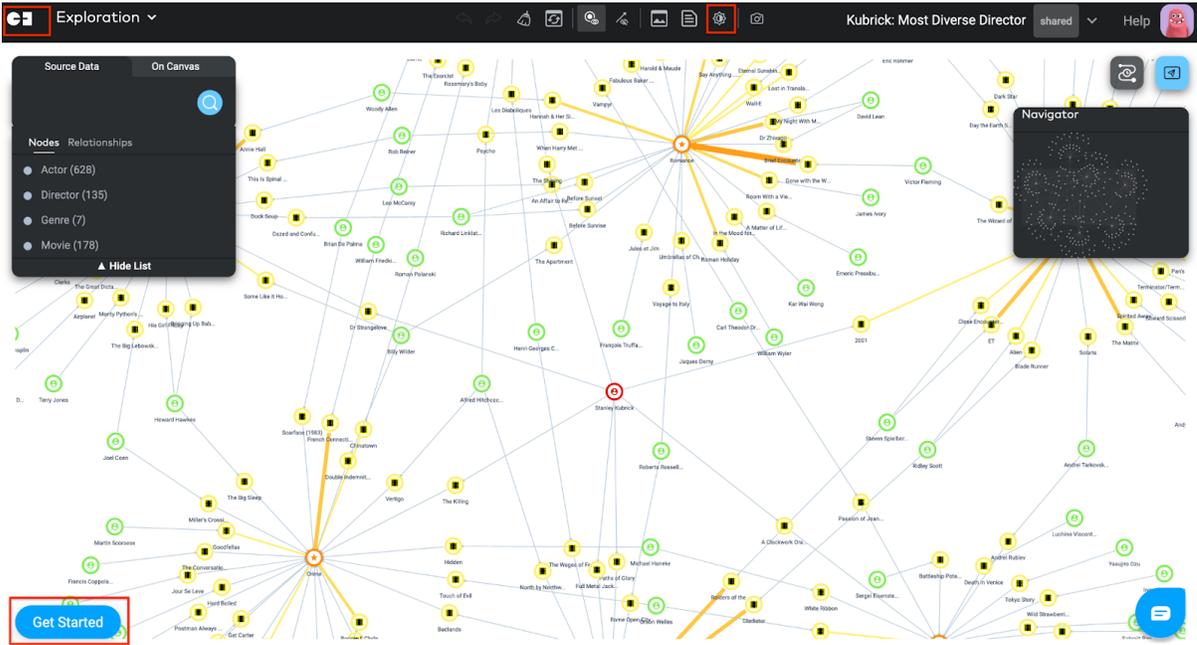
Once the email account has been confirmed it will open your **Gemini Explore** account and display an example project called, ‘**Demo Movie Project**’.

Notes:

1. If the verification email does not arrive please check that you have used a business email account and check your Junk or Spam folder.
2. Once you have signed up, return at any time using the following URI: <https://cloud.geminiexplor.com>

On initial entry to **Gemini Explore**, you will discover an example **Exploration** canvas that belongs to the **Demo Movie Project**. This will show some of the features of our product including, conditional formatting and customisable icons.

Use the buttons highlighted in red below to; view the guided tour, change the background colour, and add your own data into the product using our no-code Data Import Wizard.



A **'Welcome!'** screen will greet you on your first visit.

This contains useful instructions that will help with your Gemini Explore journey.

1. Use the **'Start tour'** button at any time for a guide around the canvas.
2. Watch the short video that guides you on how to import your own data.
3. Download the **'Quick Start Guide'**.

Welcome!

We would like to welcome you to this new innovative technology and make it easy for you to create informative knowledge graph visualizations.

We have various options here to assist you in using our product;

1. Use the **'Start Tour'** button below and let us guide you through importing data or completing our **Tutorial**.
2. Watch a short video detailing how to import your own data (CSV only).

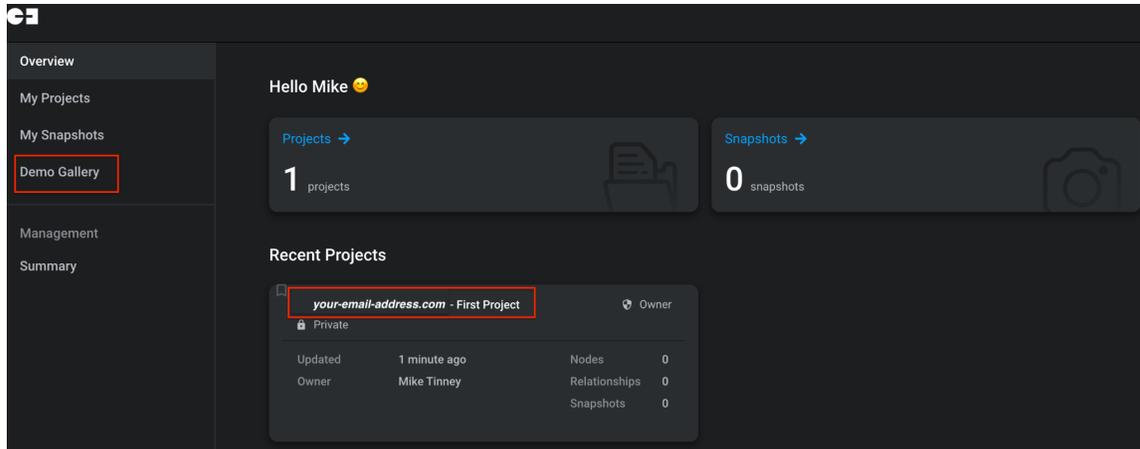
0:00 / 2:28

3. Download our [Gemini Explore User Guide](#) which has built-in sample data downloads and a full tutorial.

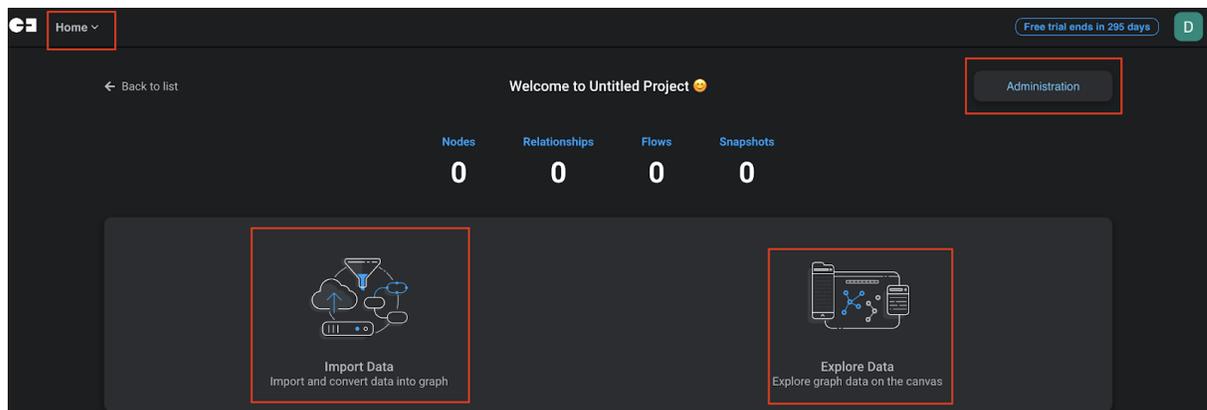
Start tour
Close

Select the **Demo Gallery** option to view several publicly available projects that have been made available for you to view and interact with at your leisure, including the Demo Movie Project.

Alternatively, enter the project that has been created and named using your signup email address. Select this using your mouse to allow the import of your own CSV data, should you wish to do so.



On selection of the project its **'Home'** dashboard will be displayed allowing you to import your own CSV data using the **'Import Data'** icon. To rename your project, or purge the data within, use the **'Administration'** button. The **'Explore Data'** icon will allow you to view and explore the data once it has been ingested. Use the **'Get Started'** button at the bottom of the screen for more help.



If you wish to import our sample data and learn how to use **Gemini Explore**, head straight to the ['How to Use Gemini Explore'](#) section of this document.

If you need to understand more about graph technology or the constraints of our trial, we advise you to read the next few sections before you begin.

3.0 Important Information

General conditions for your Explore experience

- Explore URI's are assigned to one specific email address. The assigned URI is not designed to be shared, and is not visible to anyone other than the recipient, including Gemini Data personnel.
- Email addresses are only considered valid if they are Business email accounts, gmail, hotmail, yahoo email accounts will be disallowed.
- This experience is currently limited to the ingestion of CSV files only.
- Resource has been limited within this trial environment and our advice is to reduce the size of each uploaded CSV to a sum total of 100MB. There is no restriction on the number or size of CSV's uploaded, as long as the limit of 100MB is not breached.
- Project resources are limited to one single project.
- Projects can be shared with another user who also has an assigned trial, using a specific invite from the Project concerned.
- The initial '**Free Tier**' offering is limited to 14 days from activation of email.

Project Plan

In order to begin with **Gemini Explore** it is recommended that you have a use case in mind. This could simply consist of exploring an existing dataset, learning about graph technology by completing our **Tutorial**, or trying to find connections between multiple data sources in your possession.

Whatever your use case, ensure that you have a plan. Use of a whiteboard, wireframe diagram or simple piece of paper can assist with this, but without a plan of what you want to achieve and where you want to start, you will struggle to complete a useful working model.

To help with this we have included a section called, '**Fundamentals of Modeling with Gemini Explore**' within this guide, which you may find useful, especially if you are new to graph technology visualizations.

We have embedded an optional **Tutorial** including downloadable sample data, that should only take less than half an hour to complete but which may provide a quicker route to a deeper understanding and ultimate success in using this software.

Alternatively, you will find an array of short videos available on our website. We advise beginning with our '**How to..**' video entitled, '[Ingest Data Using Our No-Code Solution](#)'. This video will also assist with the Tutorial embedded in this document.

We can help you get there faster!

This experience has been offered with full support from our trained Gemini personnel, so please reach out to explore_trial@gemini.com to arrange a Zoom call providing any help or guidance that you may need.

4.0 Data Ingestion

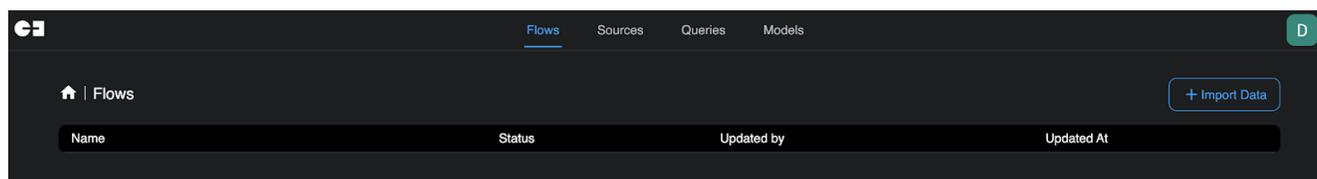
Data ingestion has been limited to CSV data sources for the **'Free Tier'** use of **Gemini Explore**. Other **'Enterprise'** versions will have access to more data connectors. Whether using the Free Tier or Enterprise versions, data ingestion is always accessed through the **Data Modeling** dashboard.

Select the **Data Modeling** dashboard using the **Main Menu** (top left), or use the large icon that appears centrally on your **Home** page.

Notes:

3. Note that data modeling is only allowed if you have 'Project Owner' or 'Manager' status.
4. **'Free Tier'** usage allows full access to your initial **'Untitled Project'**.

On entry, the dashboard will default to the **'Flows'** view. This will initially be empty if no projects have been created.



Other component stages making up the data ingestion and data modeling phases are **Sources**, **Queries**, and **Models** which can also be accessed using the dashboard buttons at the top of the page.

Summary of the Data Modeling dashboard buttons.

| | |
|----------------------|--|
| + Import Data | Use this button to create and run your Gemini Explore projects |
| Sources | Allows the user to view or modify existing sources. |
| Queries | Add/Edit/view a Splunk or SQL query (not in use for the 'Free Tier' option) |
| Models | Allows the user to view and edit existing Models or create/import a new one. |

Beginning a Project

Before you begin, check that you have your use-case project plan and your CSV sources to hand. Use the **'+ Import Data'** button to invoke the data ingestion and modeling wizard.

Follow the **Tutorial** presented in the, ['How to Use Gemini Explore'](#) section of this document for downloadable sample data and instructions on how to use this product.

Prior to building your first model, you may wish to review the following section offering tips and pointers on how to use create a successful data model. This could be particularly helpful if you have no prior knowledge of Graph technology.

5.0 Fundamentals of Modeling with Gemini Explore

In order to take your CSV data sources and produce something meaningful on the **Exploration** canvas, suitable 'models' need to be created that transform each **Source** into a series of **Nodes**, **Relationships**, and **Properties**.

The '+ **Import Data**' wizard provides intuitive data analysis without specific language skills required. Simply create **Nodes**, **Properties** and **Relationships** from existing headers within your CSV sources. Do not forget that headers from different CSV sources that are 'similar' can be normalized by choosing the same '**Tag**' name, this will see them combined automatically on the **Exploration** canvas.

Data Modeling - Basic Rules of the Road

You will likely have multiple data sources that you wish to explore together interactively using Gemini Explore. During your review of each data source, familiarise yourself with the column headers or field names, and the data contained within. **Knowing your data** is fundamental to a successful outcome, so ensure that you understand what actually makes up the columns and fields from each dataset.

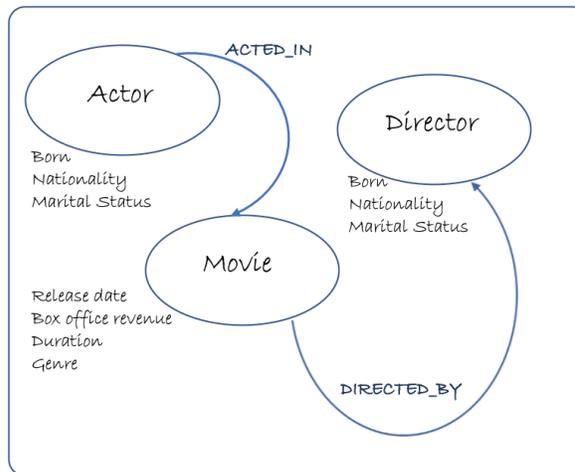
Consider the following general rules & definitions for Graph Data Modeling;

- Modeling is the process of defining **nodes**, **relationships(edges)**, and **properties**.
- A model's rules will be applied to **every** line, row, or event within your data source.
- Each model should have at least one node category but will need at least two node categories (source and target) to include a relationship(known as an 'edge').
- A '**node**' will be created on the canvas if at least one of its properties has a value for any given row.
- A '**relationship**' will be created if both its source and target nodes are present, regardless of properties, and its direction is given as per the model design.
- A '**relationship**' can be bi-directional if defined in mutually opposite directions within two models.

Every successful model starts with a thumbnail sketch or whiteboard diagram that establishes how the data should ultimately look.

This is immensely helpful in establishing which **headers/fields** will be required as **Nodes**, how the key-fields from different data sources will relate(**Edges**), and which **headers/fields** will make useful supporting metrics, ie. **Properties**.

The following is an example of a typical wireframe diagram, outlining the names of headers/fields that will become **Nodes**, and which will become **Properties**. It also defines the initial relationship required between nodes;



This diagram will give the project direction and structure. Note in the example how fields such as ‘**Born**’ and ‘**Nationality**’ have been used as **Properties** rather than **Nodes**. This both simplifies the model and offers the ability to filter Graph database searches using property values.

Considerations for completing an effective Model using Gemini Explore;

- Which **headers/fields** in your dataset will become ‘**nodes**’ on your canvas.
- Which **headers/fields** in your dataset will be more useful as ‘**properties**’ of a node.
- **Tags**(node categories) will be used to **merge** with other datasets bearing a similar Tag. This is used as a simple normalization strategy for datasets that use different field/header values for similar data.
- Each Tag’s ‘**Source**’ value **must** match the Splunk field / Database field / CSV header name exactly. By default, each **Tag** is defined as a unique ‘**key-field**’ value within your dataset, which automatically merges similar values of a Tag. This feature can be removed if desired using the checkbox provided.
- Consider carefully each **Edge**(relationship) that occurs between nodes. This can transform how your data is represented on the canvas.

Remember this is an iterative process, and it may take a couple of attempts for you to establish the correct Nodes, Properties and Edges required. This is entirely expected and each model can be built, modified, and the data re-ingested several times before the final useful outcome is established.

Data Modeling - Considerations

Node or Property?

When confronted with a new dataset that you want to represent on the canvas, questions such as these arise; whether to use **all** the fields available within your dataset, whether they should **all** be created as Nodes, or whether to create a mixture of Nodes and Properties.

There are options, but essentially only use a field/header from your dataset that you believe will be important to your use case, or will add some specific value. It is easy to add another field to your model later on, and this approach will reduce the complexity of your task at hand.

General guidance rules to help to create the ideal model;

- Do not be tempted to create too many nodes. Each additional node increases the complexity and can obscure the overall effectiveness of the model.
- Consider adding a header/field as a **'Property'** rather than as a **'Node'**, if it will add more value as additional detail that will enhance the node itself. Of course, the field can be a Node and a Property too.
- Use multiple **Tags** to categorize data. Each one creates a **'node category'** available to add to the **Exploration** canvas.
- Ensure that each **Edge**(relationship) is described accurately and orientated correctly. Convention dictates it is usually written in uppercase, using underscores to delimit words (ie. BELONGS_TO)

Using an underlying Key-field as a control

Data sources that originate from databases generally contain fields that are unique (Key fields). These provide the best option for data modeling as they avoid duplicate, null, or ambiguous values. Choice of the correct field used to merge with other datasets at the canvas is very important and can make all the difference to the overall outcome.

In the following example from a CRM database, the user Node Category has been created from a **Username** field, but crucially, the default merge option has been removed from the **Source Field** and applied instead to the **user_id Property**. This will guarantee that the value used to merge on is **always** unique, no two John Smith's will be tolerated, providing a more reliable merge option than Username.

The screenshot shows the 'Step 3: Create Node(s)' configuration screen. On the left, there's a sidebar with 'Username 3icv3' and a '+ Create New Node' button. The main area has a 'Select A Source Field' dropdown set to 'Username', with a 'Unique Key' checkbox that is unchecked. Below this is a 'Define Name Tags' section with a tag 'user'. At the bottom, a table lists 'Data Source Field' (SFDC_user_Id), 'Node Property Name' (user_id), and 'Unique Key' (checked). A '+ Add New Property' button is at the bottom.

- **Source field: Username** - chosen to represent the CRM field for the User, but one that could potentially contain a duplicate, ie. two users called 'John Smith', so the **'unique key'** checkbox has been **removed**.
- **Tag value: user** - chosen to create the **Node Category** name **'user'** that will be visible on the canvas.
- **Property value: user_id** - chosen as the **'unique key'** value, as this will *always* be unique.

Re-using the Node as an additional Property

When creating **Nodes**, remember that the **Profiler** panel is a great source of additional data that augments a highlighted Node on the canvas. For this reason, it is often useful to include the actual Node value itself as a **Property** that will show up in the Profiler panel.

Step 3: Create Node(s)

Username 3icvi3

+ Create New Node

Select A Source Field Unique Key

Username

Define Name Tags

user

| Data Source Field | Node Property Name | Unique Key |
|-------------------|--------------------|-------------------------------------|
| SFDC_user_Id | user_id | <input checked="" type="checkbox"/> |
| Username | user | <input type="checkbox"/> |

+ Add New Property

In the example above, the **Username** node value has also been made into a **Property** so it will be easy to see both **user** and **user_id** together in the **Profiler** panel.

6.0 How to Use Gemini Explore

Optional Tutorial

We have embedded a fully working tutorial within this section to help you learn the processes involved in using Gemini Explore. Feel free to complete this optional tutorial or simply use these instructions as a guide to adding your own data sources. A short accompanying video is available on our website should you require it entitled, '[Ingest Data Using Our No-Code Solution](#)'.

The embedded example we have prepared as a tutorial uses a couple of very small CSV files based on the neutral subject of **Films** and **Actors** obtained from the IMDB data source.

Use the following links to download the CSV's for use in the Tutorial, or simply have your own CSV's to hand ready to ingest as data sources during the Flow creation process.

Download Links: [movies.csv](#) [actors.csv](#)

The table below shows the first few rows and headers from the Tutorial data source - **movies.csv**;

Film,Category,Director,LeadingActors,Year,Oscars,IMDB_link,Country

Deliverance,Action,John Boorman, "Burt Reynolds, Jon Voight, Ned Beatty",1972,,http://www.imdb.com/title/tt0068473/,USA
 Roman Holiday,Romance,William Wyler,"Audrey Hepburn, Gregory Peck",1953,3,http://www.imdb.com/title/tt0046250/,USA
 The Jerk,Comedy,Carl Reiner,Steve Martin,1979,,http://www.imdb.com/title/tt0079367/,USA
 Before Sunrise,Romance,Richard Linklater,"Ethan Hawke, Julie Delpy",1995,,http://www.imdb.com/title/tt0112471/,USA

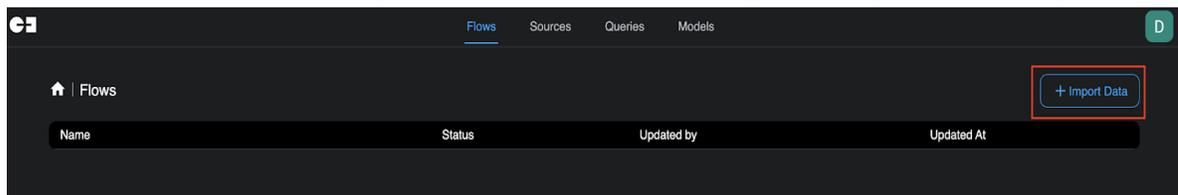
The table below shows the first few rows and headers from the Tutorial data source - **actors.csv**;

Film,LeadingActors

La Ceremonie,Isabelle Huppert
 La Ceremonie,Jacqueline Bisse
 The Big Sleep,Bob Steele
 The Big Sleep,Elisha Cook Jr

1.0 Creating a Data Import Flow

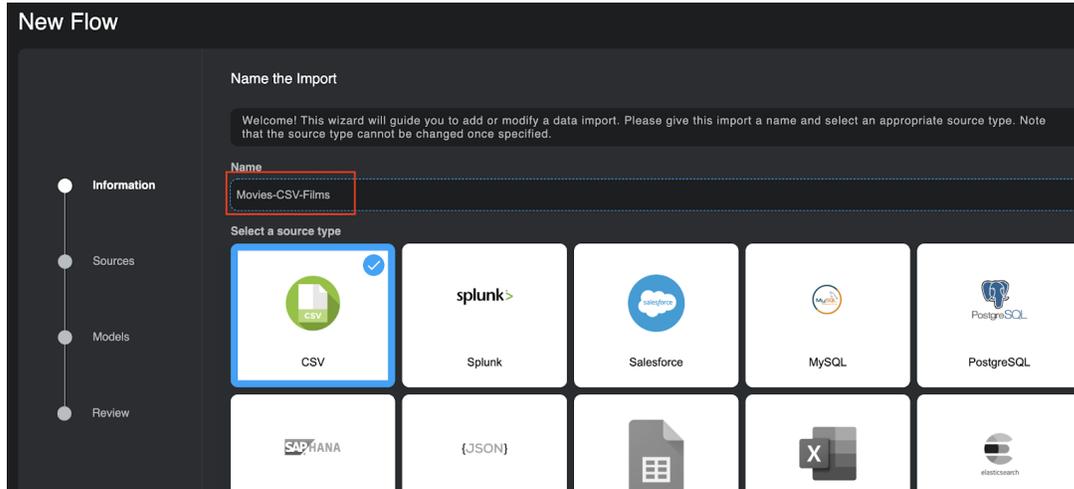
- 1.1 Log into your **Gemini Explore** trial using the following URL: <https://cloud.geminiidata.com>. If you have not yet created your login account, please refer to the section above, '[Getting Started with the Gemini Explore](#)', for details on how to get started.
- 1.2 From the **Data Modeling** dashboard of **Gemini Explore**, select the '+ **Import Data**' button to initiate the **Data Import Wizard**. Each '**Flow**' created will represent a unique combination of a data source and data model (and can also include a **Query** in Enterprise versions).



At the first screen, a suitable **Flow Name** is required that will be carried across into the naming of related components such as a Model or Query. For this reason, we recommend the following naming convention:

<project_name>_<source_type>_<data_reference>

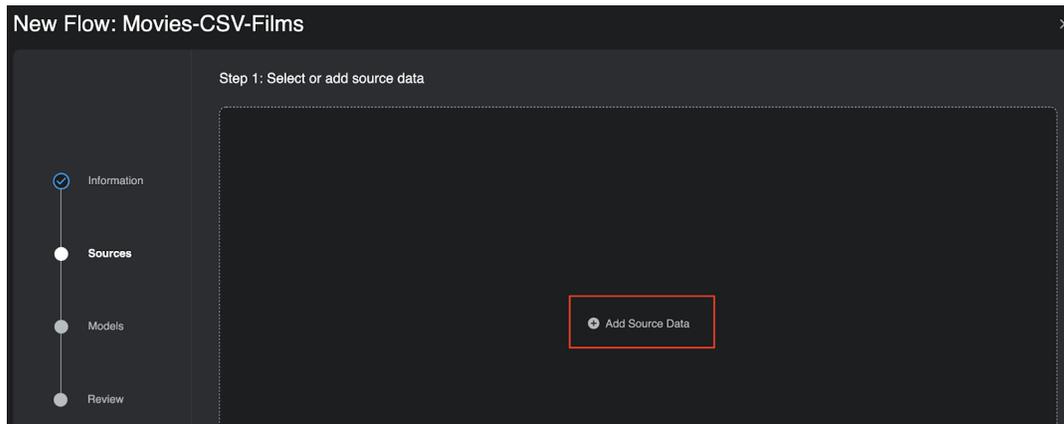
- 1.3 If completing the **Tutorial**, enter the Flow Name, **Movies-CSV-Films** at the prompt (see below)



The **CSV** Source Type is selected as default. (other options are not available within Free Tier version)

- 1.4 Select the **'Next'** button to move through the wizard.

- 1.5 In all probability, the **'Select or create source'** screen will be empty if this is your first use.



Select the **'+ Add Source Data'** link to reveal the screen below, and notice that the **'Source Name'** has been automatically completed using the Flow Name entered previously.

Step 2: Create Movies-CSV-Films Source (csv)

Complete the Data Source detail. Select 'Advanced' for additional parameters.

Source Name
Movies-CSV-Films-source

Drop CSV file or click here to upload.

[Advanced \(optional\) ▶](#)

Use the **'Drop CSV file or click here to upload'** link to navigate to the **movies.csv** file on your workstation, downloaded from the link provided at the start of this section.

The first few lines of the data source will be shown as a **'Data Preview'** for your convenience. As you move forward in the Wizard, use the **'Back'** button to return here at any time.

New Flow: Movies-CSV-Films ×

Data Preview: Movies-CSV-Films-source (movies(1).csv)

| Film | Category | Director | LeadingActors | Year | Oscars | IMDB_link | Country |
|-----------------|----------|--------------------|----------------|------|--------|--------------------------------------|---------|
| Voyage to Italy | Romance | Roberto Rossellini | Ingrid Bergman | 1954 | | http://www.imdb.com/title/tt0048511/ | Italy |
| The Jerk | Comedy | Carl Reiner | Steve Martin | 1979 | | http://www.imdb.com/title/tt0079367/ | USA |

Information

- 1.6 Select the **'Next'** button, to move onto the **Model** creation stage of the wizard. The screen is again likely to be empty of Models as this is most likely a new installation.

Select the **'+ New Model'** link.

- 1.7 Notice that the **Model Name** has inherited the **Flow Name** used at the start.

Step 2: Create Movies-CSV-Films Model

Define the Nodes and Relationships that will represent the actual source field/headers within your data.

Model Name
Movies-CSV-Films-model

Creator
user name

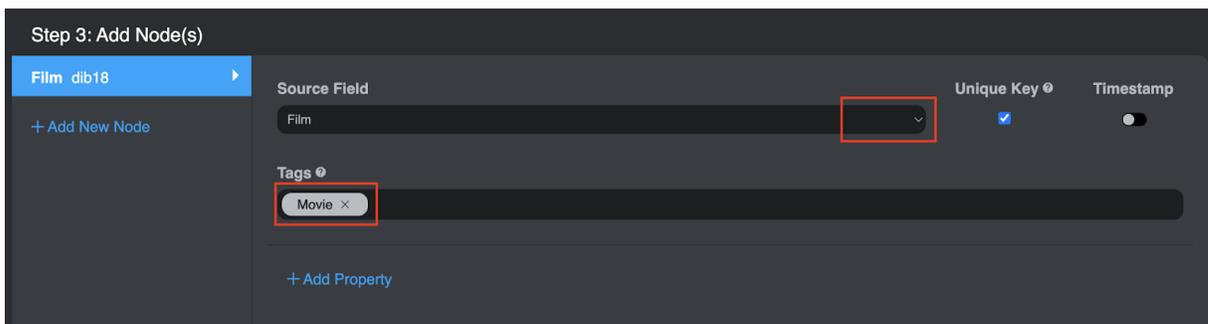
Version
1.0

The **Creator** will reflect your own verified email account address.

The **Version** defaults to an initial value (1.0)

Select the **'Next'** button to begin the creation of our first Model, **'Movies-CSV-Film's model'**

- 1.8 Select the **'+ Create New Node'** link to begin the creation of your first Node.
 At the **'Select a field'** drop-down selector, choose **'Film'** to be our first **Node**

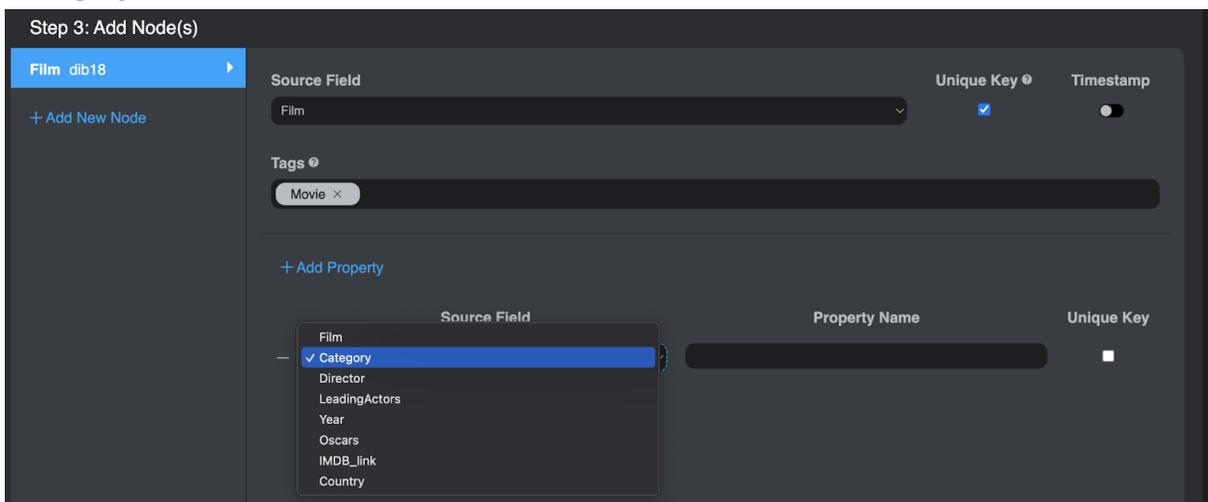


At the **'Tags'** entry box, type **'Movie'** which will become our **Tag** (node category) for our Films header.

We have created a new node, and we shall now add some useful **Properties** that will enhance that **Node** on the canvas. These will be carefully chosen from the available headers in the CSV file.

For our **'Movie'** node we will add the following properties; **'Category'**, **'Year'**, **'Oscars'**, **'Country'** and **'IMDB_link'**

- 1.9 Select the **'+ Add Property'** button, and from the **'Source Field'** drop-down select the **'Category'** header from the available list.



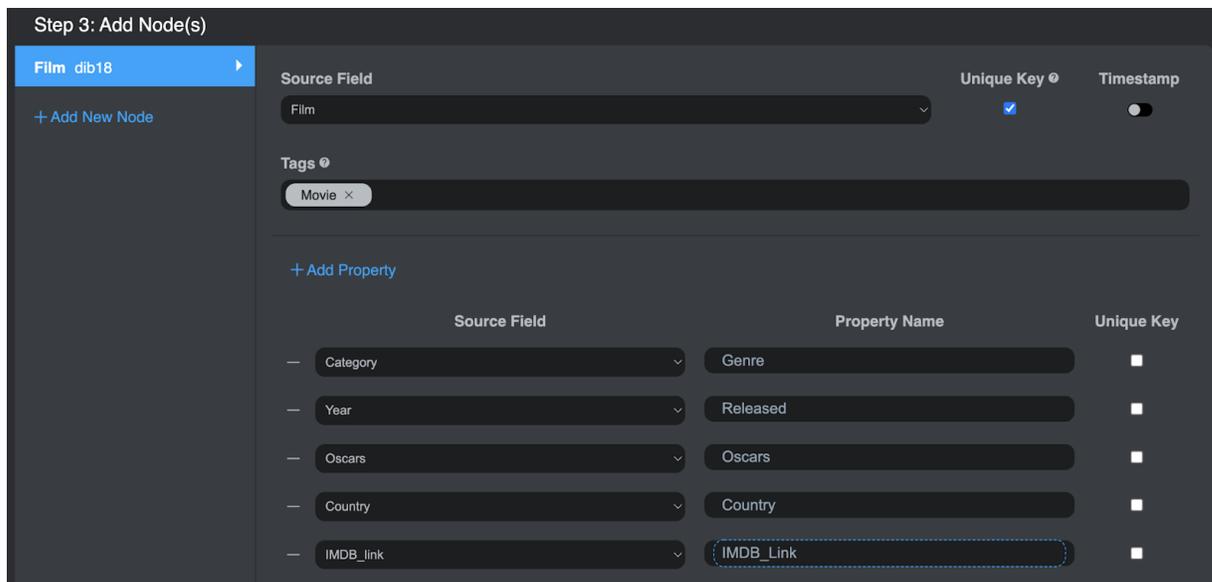
In the **'Property Name'** box, enter **'Genre'** with a capital 'G'.

To create the remaining properties, select the **'+ Add Property'** button and repeat the process using the following detail;

| Data Source Field | Node Property Name |
|-------------------|--------------------|
| Year | Released |
| Oscars | Oscars |

| | |
|-----------|-----------|
| Country | Country |
| IMDB_Link | IMDB_Link |

On completion, the **Movie** node's **Properties** should resemble the following;

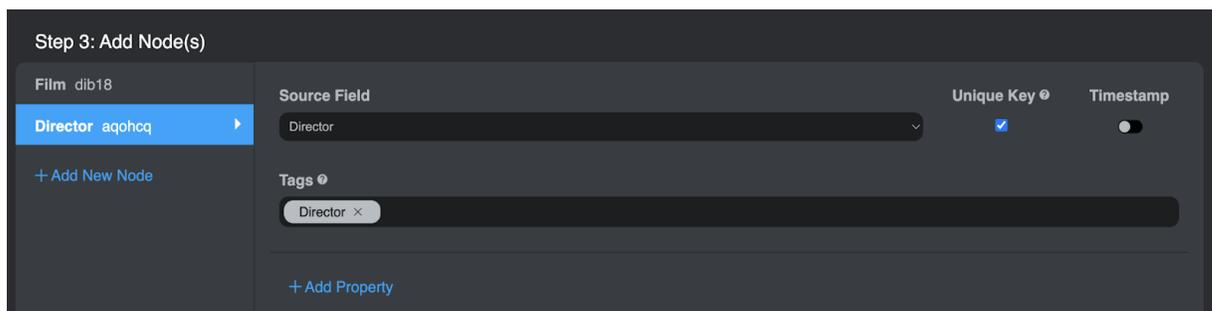


We have completed the Model's first **Node** including some additional **Properties**, but a Model will generally need multiple nodes and their subsequent relationships to tell the story of its data source.

We will now add more **Nodes** to emphasize this, in the form of a **Director** and **Category/Genre** node.

- 1.10 Select the **'+ Add New Node'** link, located under our film node, and from the **Source Field** drop-down box select the **'Director'** header. In the **'Tags'** box, enter **'Director'** as the Tag for this header

When complete, the **Director** node should resemble the following;



- 1.11 Repeat the above section using the **'+ Add New Node'** button to create a Node for the **Category** using the following detail.

| Source Field | Tag | Properties |
|--------------|-------|----------------|
| Category | Genre | (not required) |

Select the **'Next'** button at the bottom of the screen to begin adding **Relationship** detail to the Model.

- 1.12 Initially, there will be no relationships listed. The initial **Relationship** will default to the first node created linked to itself.

Step 4: Add Relationship(s)

related_to

+ Add New Relationship

Define Relationship Label

related_to

Merge Duplicates

Source Node

Film - dib18

Target Node

Film - dib18

Replace the 'Target Node' with **Category**, using the drop-down menu prompt, and redefine the relationship between them as '**BELONGS_TO**'

Step 4: Add Relationship(s)

BELONGS_TO

+ Add New Relationship

Define Relationship Label

BELONGS_TO

Merge Duplicates

Source Node

Film - dib18

Target Node

Category - dnswtl

+ Add New Property

Select the ' + Create New Relationship' button to define one more relationship between the **Film** and **Director** Nodes. Overwrite the **Define Relationship Label** to '**DIRECTED_BY**' (note that the usual format is to capitalize a relationship). The result should look similar to the below.

Step 4: Add Relationship(s)

BELONGS_TO

DIRECTED_BY

+ Add New Relationship

Define Relationship Label

DIRECTED_BY

Merge Duplicates

Source Node

Film - dib18

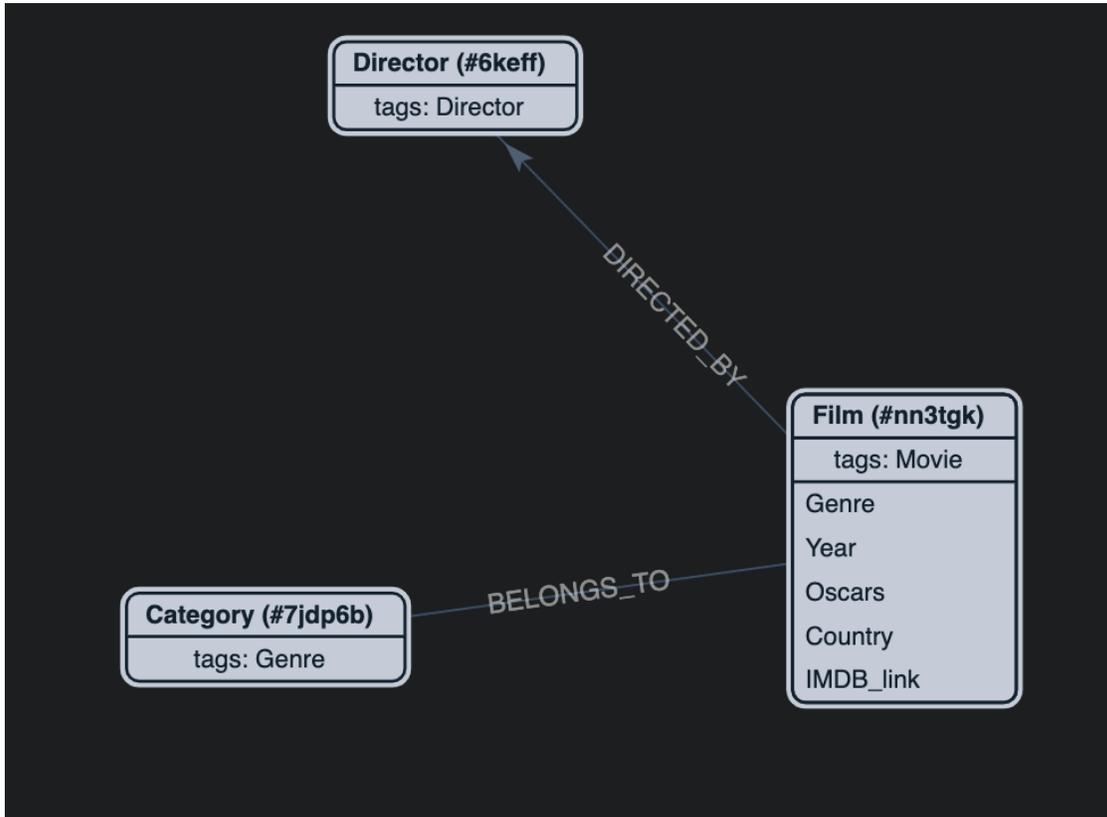
Target Node

Director - aqohcq

+ Add New Property

It is possible to create **Properties** for a **Relationship** similar to those at the Node. This will enhance the output in the **Profiler** panel of the **Exploration** canvas. We have a section that describes this process coming up later in this Tutorial.

- 1.13 Select the '**Next**' button to preview the completed Model, the result should resemble the following;



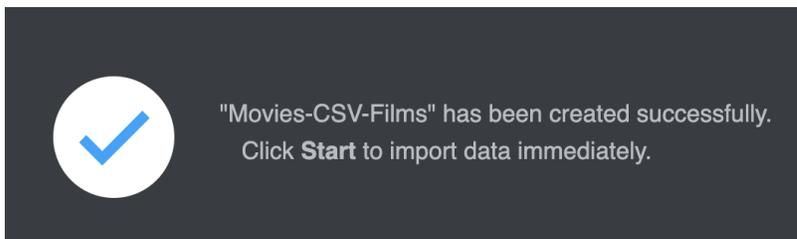
1.14 Select the 'Next' button to review the components that have created the **Movies-CSV-Films** data import.

Review Flow: Movies-CSV-Films

| | |
|----------|--|
| Type | csv |
| Source | movies.csv change |
| Model | Movies-CSV-Films-model (config) change 3 nodes change 2 edges change |
| Schedule | On-demand |

[Save](#)

1.15 Select the 'Save' button to acknowledge the review and save the Data Import.



- 1.16 Select the **'Start'** button to initiate the ingestion 'flow' of the **Source** file movies.csv, against the Model created.

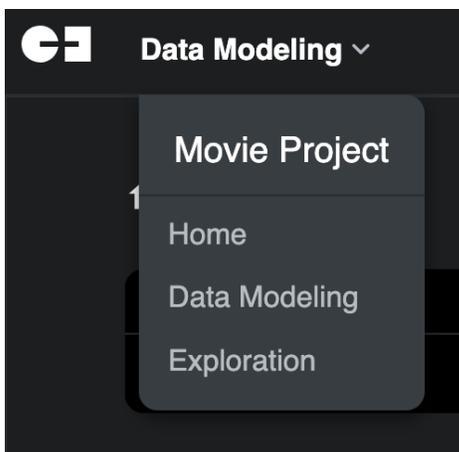
During this process, the **Flows** screen will reappear showing the status of Data Imports.

The screenshot shows a dark-themed interface with a header "Flows" and a "+ Import Data" button. Below is a table with the following data:

| Name | Status | Updated by | Updated At |
|------------------|--------------------------------------|-------------------------------|-----------------------|
| Movies-CSV-Films | Completed (at 7/18/2022, 8:19:29 PM) | dylan.hedberg@geminiidata.com | 7/18/2022, 8:19:23 PM |

The Flow should verify that the **Movies-CSV-Films** data source has completed successfully.

- 1.17 If desired, feel free to have an initial look at the **Exploration** canvas using the Exploration option on the Main Menu.



At this stage, we have three **Node Categories**, and all the Node icons will look the same. This needs attention.

Before we attend to the Node icons, we shall ingest another **Node Category** called **'Actors'**. This new data source will merge with the existing Graph database using the Movie header, and show how the actors are connected on the canvas.

2.0 Importing additional Data Sources

It is not until multiple data sources have been added that the real power of Gemini Explore is realized. We will simulate this in the Tutorial by adding another CSV called **Actors.csv**. This data source is simpler than the last, as it only contains two columns. One of these column headers is 'Film' and we will use this header to *'merge'* with the existing data source using the 'Movie' Tag on the Exploration canvas.

To save a little time during this tutorial we will use the **'Import'** model feature, so there is no need to build another model.

If you are adding a second data source yourself that is very different from the original and is outside of this tutorial, simply repeat the processes defined in Step 1.0, remembering the importance of *'merging'* when connecting other data sources.

- 2.1 Return to the **Data Modeling** dashboard of **Gemini Explore**, and select the **‘+ Import Data’** button to initiate ingestion of another data source.
- 2.2 For our **Tutorial**, enter the Flow Name, **Movies-CSV-Actors** (see below)

Name the Import

Welcome! This wizard will guide you to add or modify a data import. Please give this import a name and select an appropriate source type. Note that the source type cannot be changed once specified.

Name
Movies-CSV-Actors

Select a source type

CSV (selected)

Splunk

Salesforce

MySQL

PostgreSQL

SAP HANA

(JSON)

Microsoft Excel

Select the **‘Next’** button to move through the wizard.

- 2.3 Select the **‘+ Add Source Data’** button to begin ingestion of another data source.

Step 1: Select or add source data

| Name | Created at | Updated at |
|-------------------------|------------|------------|
| Movies-CSV-Films-source | 7/18/2022 | 7/18/2022 |

+ Add Source Data

At the Data Import Wizard add a new **‘Name’**. If you are working through the tutorial add; **Movies-CSV-Actors** as the **Name**, navigate to and upload the **Actors.csv** file downloaded earlier.

- 2.4 Move through the **Data Preview** to the **Models** stage using the **‘Next’** button, and on this occasion use the option to **‘Import Model’**. If you are working through the **Tutorial**, we have prepared your model for you. Use the download link below to obtain the model for the Actors.csv file, and save it to your local workstation.

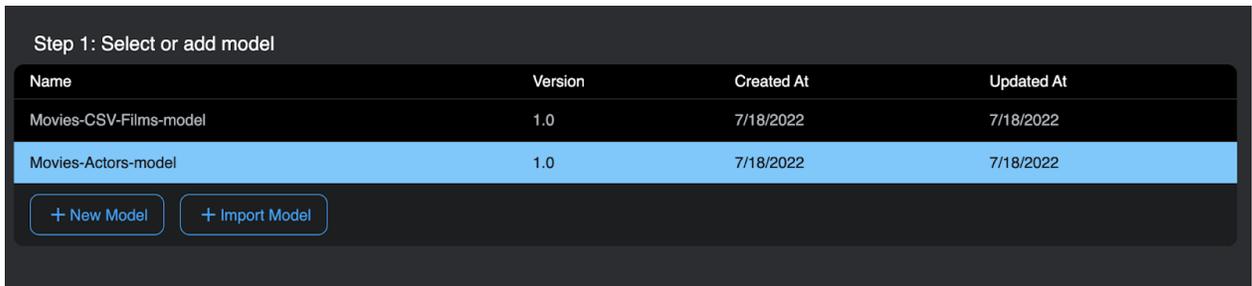
Download Link: [Movies-Actors-model](#)

Step 1: Select or add model

| Name | Version | Created At | Updated At |
|------------------------|---------|------------|------------|
| Movies-CSV-Films-model | 1.0 | 7/18/2022 | 7/18/2022 |

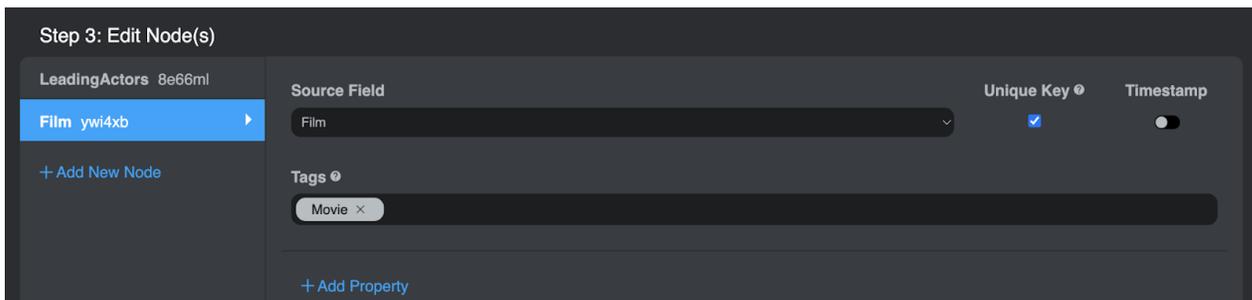
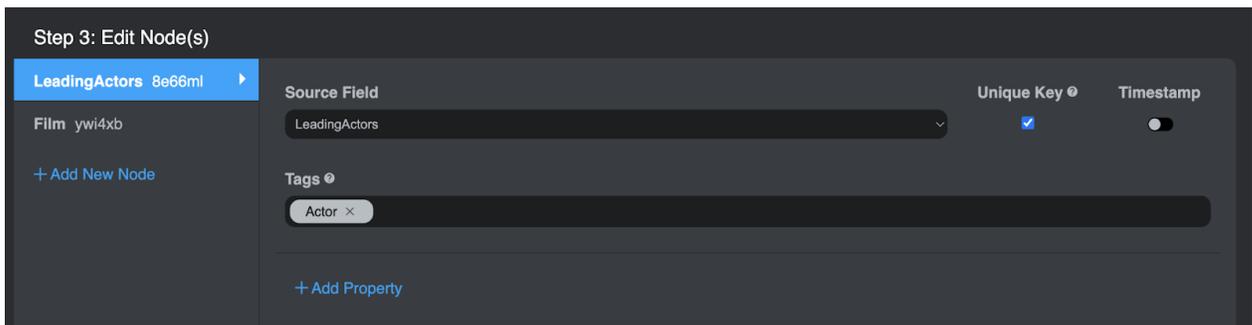
+ New Model **+ Import Model**

- 2.5 Select the **'+ Import Model'** link and locate the downloaded file - **Movies-Actors-model**. The screen should now resemble the following;



- 2.6 Select the **'Next'** button to confirm the name of the uploaded Model.

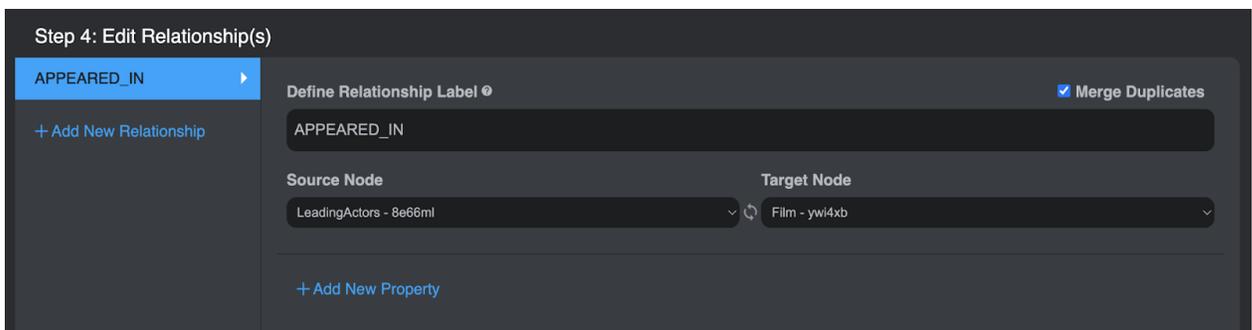
- 2.7 Select the **'Next'** button again to confirm **Nodes** within the Model.



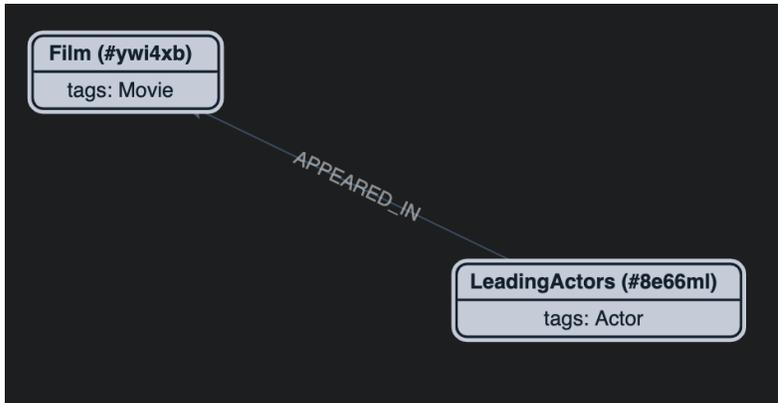
This Model will merge with the **Movies.csv** source if it shares a similar **Tag** name called **'Movie'**. If you have followed this **Tutorial** correctly the **Exploration** canvas will reflect this, however, if you created a **'Film'** Tag in your first model, then do the same here so that they merge.

This is how 'normalization' within datasets is achieved in Gemini Explore, simply using the same **'Tag'** name to represent similar data that is used in a different data source.

- 2.8 Select the **'Next'** button again to confirm the prebuilt **Relationship** created within the Model.



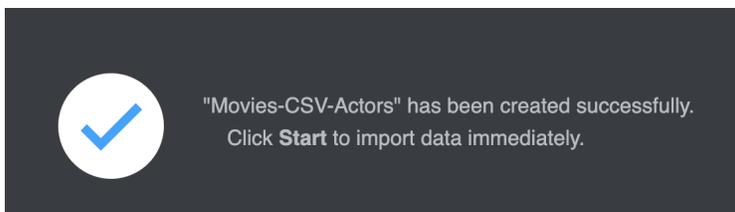
2.9 Select the **'Next'** button to preview the Model.



2.10 Select the **'Next'** button to Review the configuration.

| Review Flow: Movies-CSV-Actors | |
|--------------------------------|---|
| Type | csv |
| Source | actors(1).csv change |
| Model | Movies-Actors-model (config) change 2 nodes change 1 relationships change |
| Schedule | On-demand |

2.11 Select the **'Save'** button to acknowledge the review and save the Data Import.



2.12 Select the **'Start'** button to initiate ingestion of the **Source** 'Actors.csv' against the imported Model.

During this process, the **Flows** screen will appear showing the status of all Data Imports.

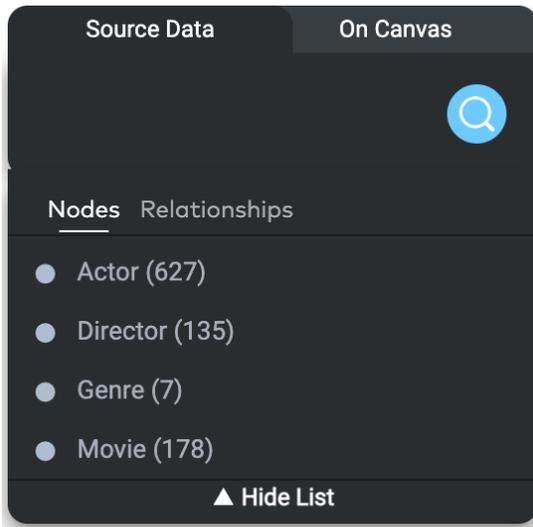
| Flows | | | |
|-----------------------------------|--------------------------------------|-----------------------------|-----------------------|
| Name | Status | Updated by | Updated At |
| Movies-CSV-Actors | Completed (at 7/18/2022, 9:27:44 PM) | dylan.hedberg@gemindata.com | 7/18/2022, 9:27:39 PM |
| Movies-CSV-Films | Completed (at 7/18/2022, 8:19:29 PM) | dylan.hedberg@gemindata.com | 7/18/2022, 8:19:23 PM |

Verify that the **Movies-CSV-Actors** data import has been completed successfully.

3.0 Viewing Data on the Exploration Canvas

Now that both **Data Imports** have been completed, select '**Exploration**' from the **Home** menu to reveal the **Exploration** dashboard.

The left-hand panel shows the **Node categories** created. The number in parenthesis represents the number of Nodes contained within each category.



- 3.1 Hover the mouse over '**Movie**', notice an icon to the right, and select '+' to add all the movies to the **Exploration** canvas. The resulting canvas should resemble that below;



All icons initially start life as a grey circle. In order to make the canvas easier to read we will demonstrate how to modify the Movie tag.

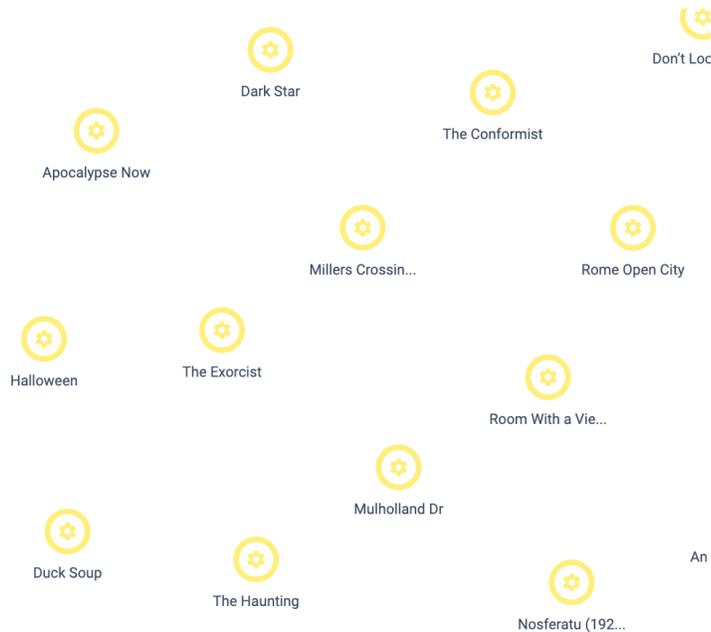
- 3.2 In the **Node Category** panel, hover the mouse over the '**Movie**' Tag and notice a color palette icon to the right. Select this icon labeled, '**Node Appearance**'.

From the screen that follows, select the **'Gear Icon'** (bottom row) then click on the color swatch (highlighted below) to change the color from grey to yellow



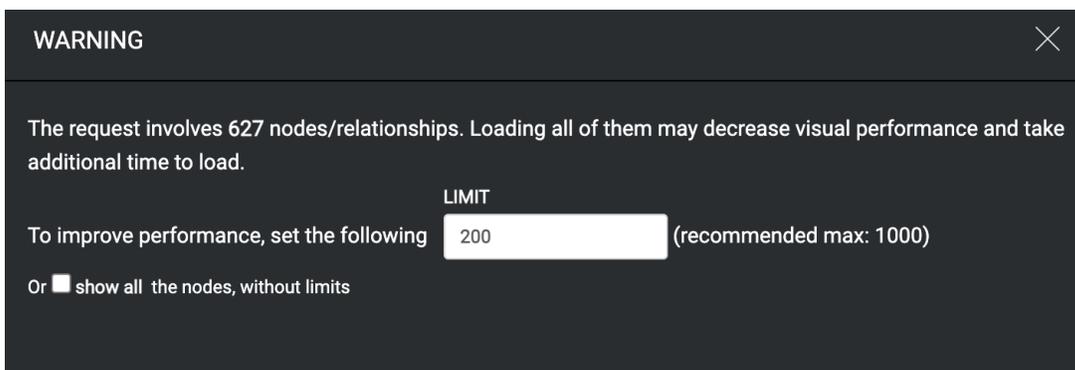
Select **'Save Custom Display'**

The **Exploration** canvas should now look similar to the following;



We will now bring other **Node Categories** onto the canvas and see how they relate to one another.

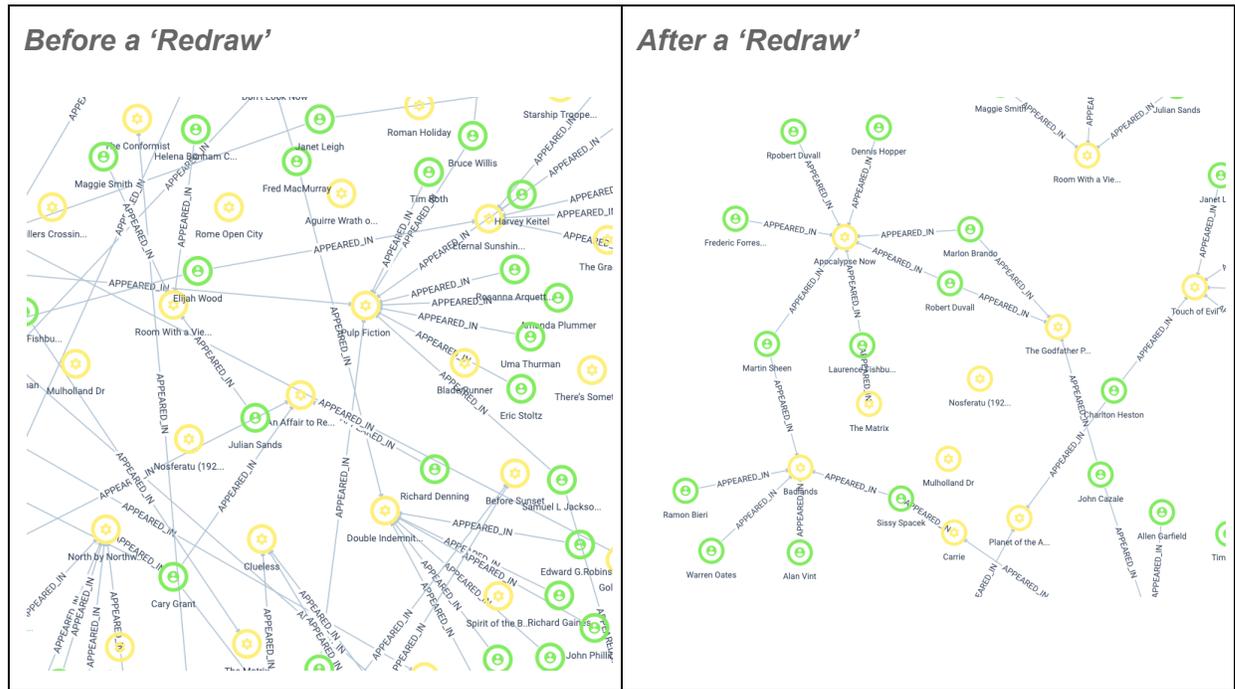
3.3 From the **Nodes** panel, use (+) button adjacent to the **Actor(627)** Node. This will prompt a warning, similar to that below;



There are several options here, but for demonstration purposes, select the **'Continue'** button to limit the number of **Actors** to **200**.

On completion, the initial canvas response can be confusing, so we always recommend the use of the **'Redraw'** feature. This can be found as an icon on the **Main Toolbar**, or by simply selecting the **'r'** key on your keyboard at any time.

Note: We have added a new icon for **Actors** here, using the same procedure detailed in section 3.2 above, which has resulted in the actors showing here as green icons.



3.4 Add both the **Director** and **Genre** nodes to the canvas, and press the 'r' key to redraw one more time. Feel free to change the icon colour and style for each Node Category as required.

Note: Custom icons can also be uploaded here, but only in an **'svg'** file format.

3.5 Select any **Movie** node on the canvas at random, and observe its **Properties** in the **Profiler** panel.

Profiler

Star Wars (1977) >

Neighbors
9

Tags
Movie

Country
USA

Genre
Sci-Fi

IMDB_Link
<http://www.imdb.com/title/tt0076759/>

Oscars
6

Released
1977

4.0 Exploring and Searching

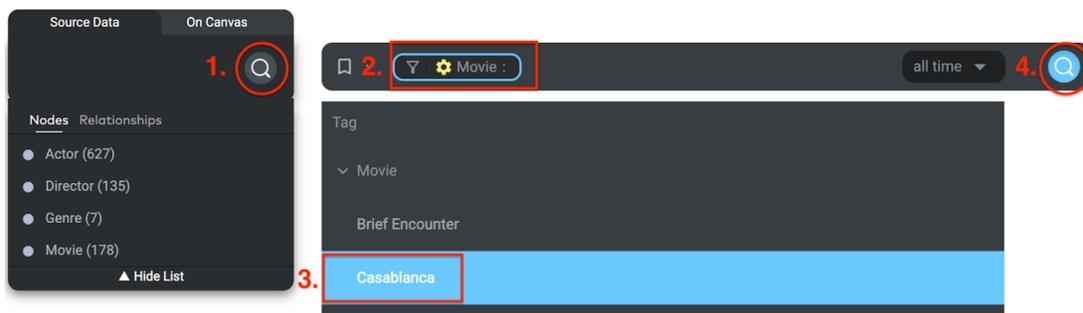
Graph databases can include hundreds of thousands of records so it is imperative that search filters can be easily applied. Gemini Explore has an intuitive and powerful search facility with several ways to filter data; by Time, by Node Category, by Property value, and sometimes more than one filter needs to be applied to complete one search.

Before we get started, please clear the Canvas of any nodes using the **Clear Icon**  on the Toolbar or by simply selecting the 'e' key on your keyboard.

As a simple introduction, we will conduct two searches.

4.1 Navigate to the 'Exploration' canvas using the **Main Menu** drop-down selector.

1. From the **Node Category Panel**, select the 'Search' icon (see below).



2. The **Search Bar** will open automatically. Type the Node Category '**Movie**' and press the '**Enter**' key on your keyboard (Note that the search here is case sensitive).
3. On pressing Enter key, the **Movie** Node Category is recognized, and will begin to list Movie values, awaiting your choice. Type - or use your mouse to select from the list - the movie, '**Casablanca**'.
4. Finally, press the '**Run Search**' icon to complete the process.

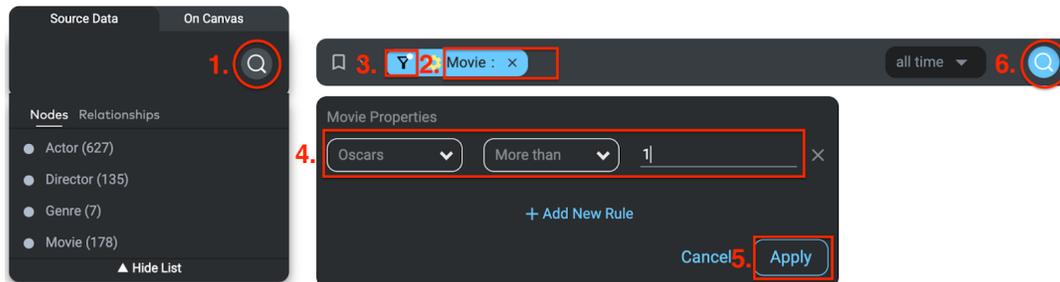
4.2 A single Movie node will appear on the canvas. Double-click the Movie **Casablanca** to see all the Actors, Director, and the associated Genre. Notice how this Movie has received 3 Oscars.



4.3 One search usually leads to another, and in this case perhaps the question, '**How many Movies have received more than 1 Oscar?**' requires an answer.

We shall now modify our previous search to add a search filter on the 'Oscars' Property to answer this question.

- 4.4
 1. From the **Node Category Panel**, select the 'Search' icon as before
 2. Type the word 'Movie' and press 'Enter'
 3. Locate the small **Filter** Icon (see below)
 4. Select the '+ Add new Rule' button and set up a filter for the **Oscars Property** to use the search value 'more than 1'.
 5. Click on the 'Apply' button.
 6. Select the 'Run Search' icon



The canvas should return 24 Movies that meet these criteria. Feel free to search these at random before continuing with the next section.

5.0 Modifying the Model

Data Modeling is an iterative process and the initial model is usually the first of many created before the final version emerges. Changes usually follow exploration of the data on the canvas, which often leads to improvements or additional requirements that need to be made.

Following on from our previous section regarding the search that revealed movies with more than one Oscar, we may want to improve the visualization in order to make this easier to spot. This use case will form the basis of this section to modify a Model and add a '**conditional format**' to the Relationship in the process.

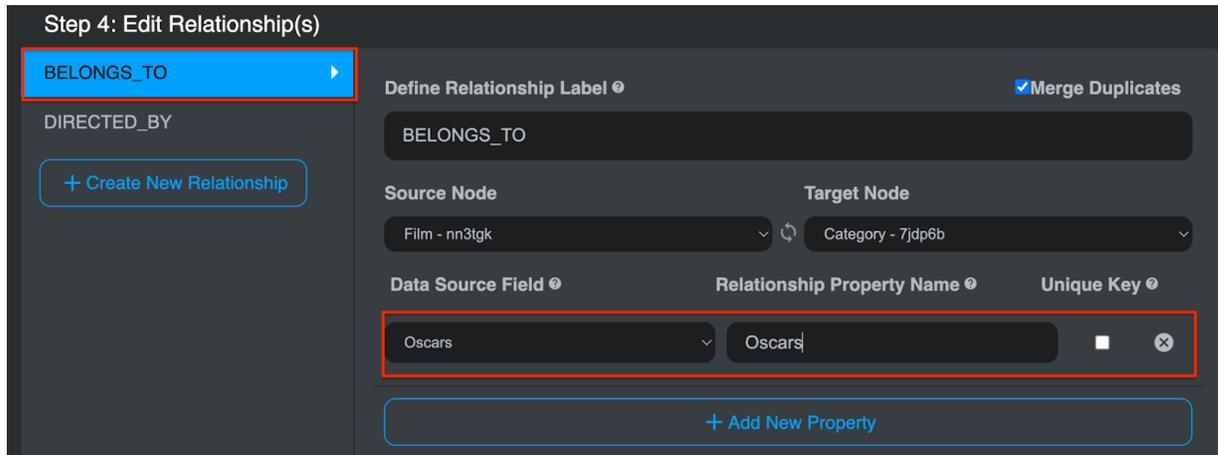
Goal: The visualization should show the number of Oscars by the '**width**' of the connecting line to the Genre node.

Process: Add an extra Property for Oscars to its Relationship in the Movies model.

Extra Step: Add a conditional format to the Oscar Relationship at the Exploration canvas.

- 5.1 Return to the Data Modeling dashboard, and select the **Movies-CSV-Films** Flow in order to enter **Edit** mode.

Select the '**Next**' button multiple times until you reach '**Step 4: Edit Relationships**'



Ensure that you have selected the **BELONGS_TO** relationship involving the **Film** and **Category**.

- 5.2 Use the '+ Add New Property' button to add a new Property to this Relationship based on the Oscars header.
- 5.3 Select the 'Next' button to move on through the Wizard. Select the 'Save' button when prompted, followed by the 'Start' button to re-ingest the data against the modified model.

Note:

It is 'best practice' to first 'Purge' the data from the database before re-ingesting against a modified model. In this specific case, we have not changed the underlying structure of the model we simply added a Property.

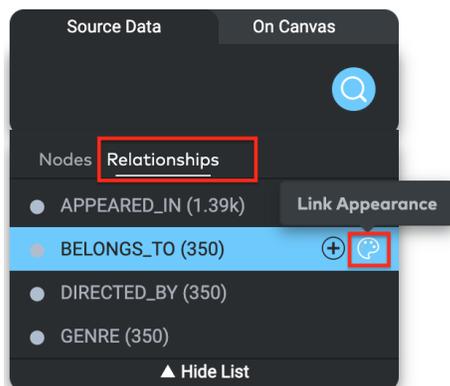
- 5.4 Return to the **Exploration** canvas to verify changes.

6.0 Applying Conditional Formatting to the Canvas

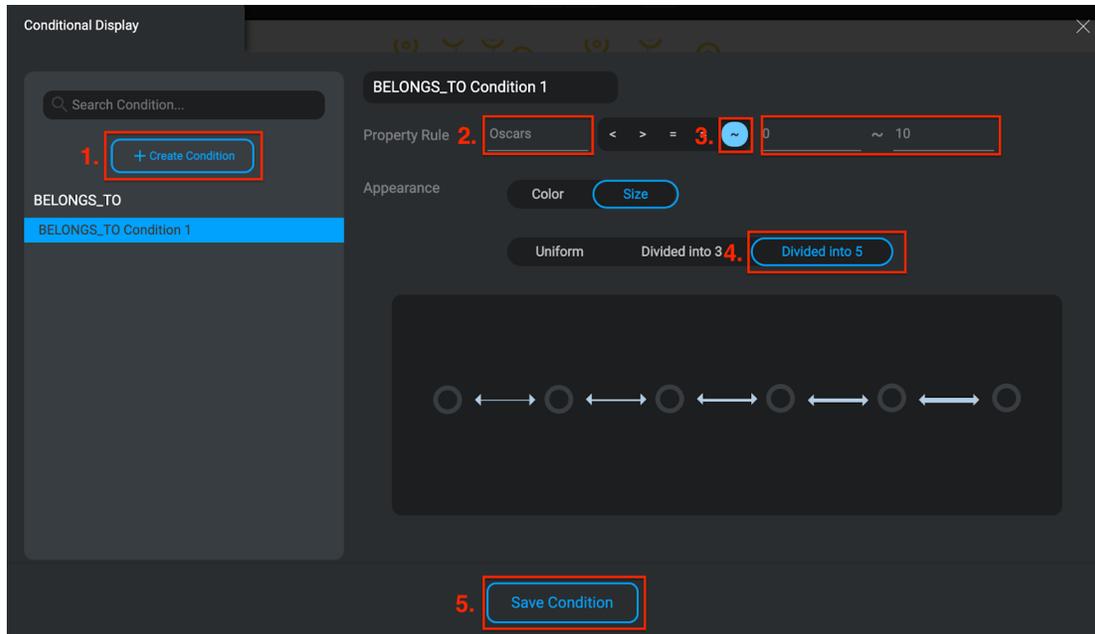
Conditional formatting can be added to either **Nodes** or **Relationships**, using one or more of their Property values (provided they are numeric!). This makes the canvas even more dynamic and easier to read.

Following the modification of our movies model, we shall add a **Conditional Formatting Rule**.

- 6.1 From the **Node Category Panel**, first select the **Relationships** header for Source Data. Then locate the **palette icon** adjacent to the **BELONGS_TO** relationship.

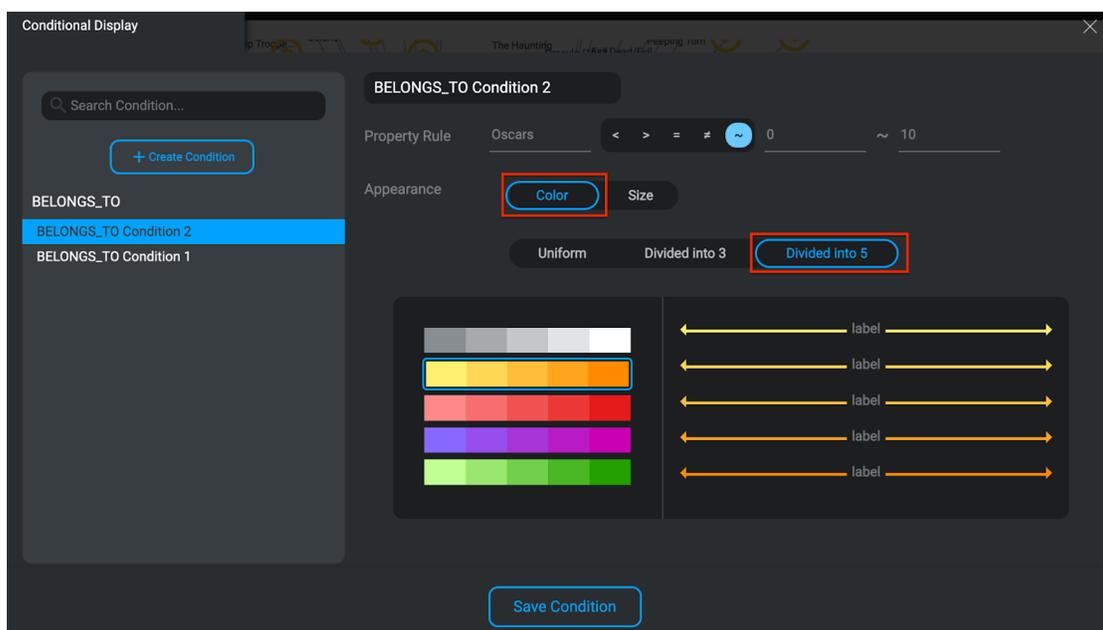


6.2 Select the 'Conditional Format' tab at the top of the splash screen to reveal the following;



1. Select the '+ Create Condition' button.
2. Select the 'Oscars' Property from the drop-down menu.
3. Choose the 'range' option, and enter a range between zero and 10; 0 ~ 10
4. Change the **Appearance** style to 'Divided into 5' groups. (refer to its graphic below)
5. Select the 'Save Condition' button to confirm the settings.

6.3 Repeat this exercise to add color as well as size to the Relationships using the same settings. This creates a more compelling visualization. The different settings are highlighted below;



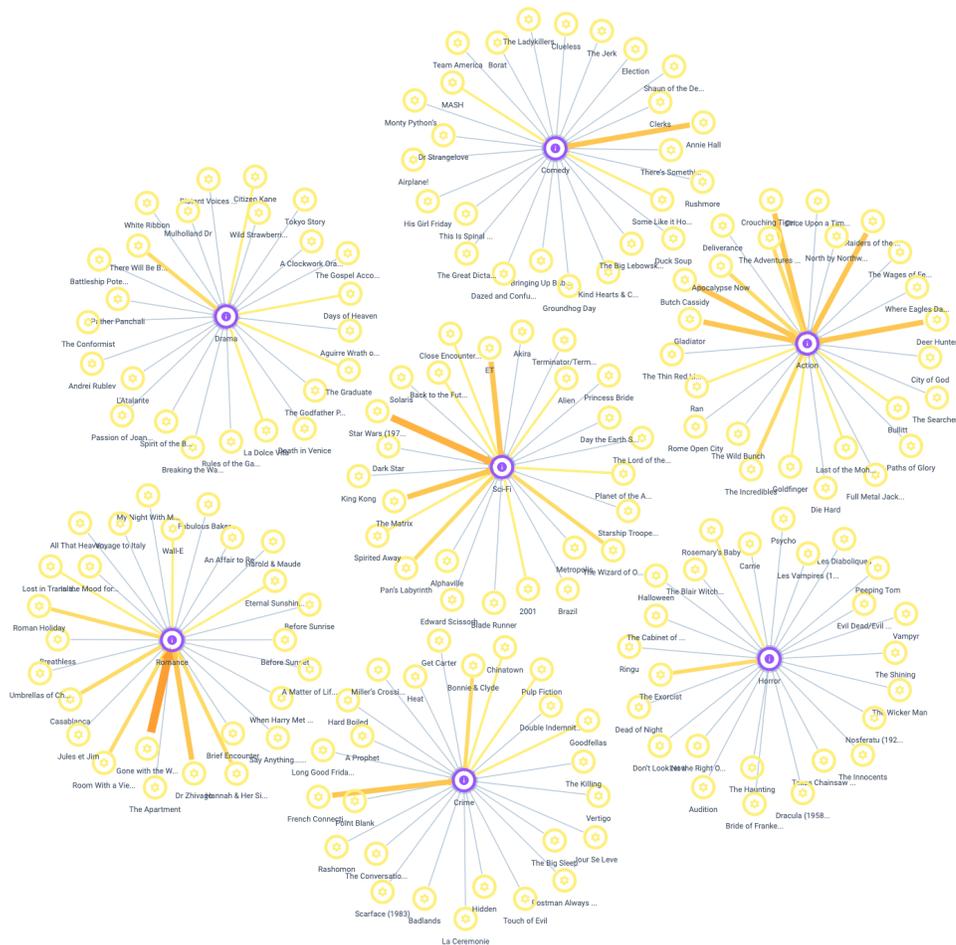
6.4 Return to the **Exploration** dashboard and clear the Canvas.

6.5 Use the **(+)** button adjacent to **Genre(7)** to bring onto the canvas the seven Genre node categories.

Select any node, then use the **'s'** key to **'select all'** (or 'draw a box' around them with your mouse).

Click on any node and use its **'Right-click'** menu to select, **'Explore Neighbors: Movie (175)'**

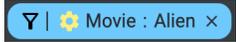
Redraw the canvas by pressing the **'r'** key, or using the redraw icon in the **Main Toolbar**.



7.0 Adding Annotations

Adding text, image, or video annotation to individual Nodes can be a useful way to enhance the overall experience on the canvas and provide more detail where it is required.

In this exercise, we will add an image to the **Alien** movie node. Feel free to download the [aliens.png](#) file, if you wish to add this to your environment.

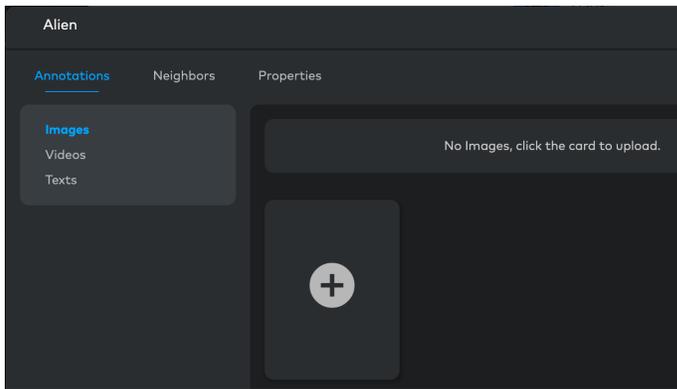
7.1 From the **Exploration** canvas, use **Search** to locate the **Alien** movie;  and then open its **Right-click** menu.



Select the '**Show Annotations**' option (or use the shortcut key Cmd-M / Ctrl-M).

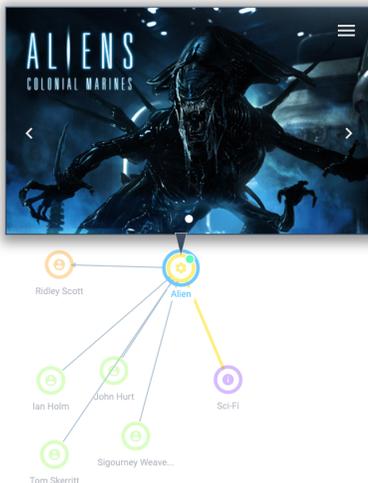
From the panel that follows, select the '**+ Add**' button located above the list of annotation types.

7.2 This will display the following screen detailing current attachments and allowing their addition. Select the '**+**' button to add an image. Upload the and select the Close button to return to the Exploration canvas.



7.3 To view attachments, right-click the icon on the Exploration canvas, which has now been given the addition of a small green dot to show it has an attachment, and select the '**Show Annotations**' option opening the panel opposite. From the internal sub-menu, select the Image, Text or Video as appropriate.

Click on the image to open in a full-width view, and click again to open in full-screen mode.



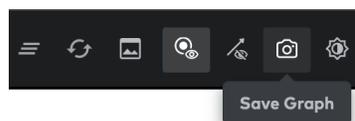
Use the direction arrows within this panel to select other annotations that may be present, or use the menu icon to collapse the image and revert back to the menu view. Close using the 'X' in the top right-hand corner

8.0 Saving Results as a Saved Snapshot

The **Saved Snapshots** feature allows a user to share their findings with others in their Team.

8.1 Create a graph of your choice.

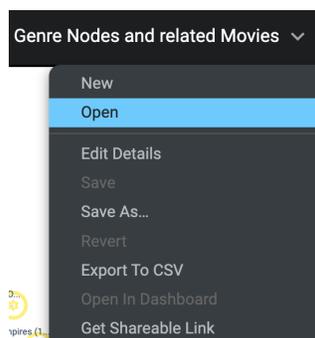
Select the '**Save Snapshot**' icon to open the save dialog. Enter a logical **Name** and optional **Description** for the graph, then select the '**Save**' button.



8.2 Use the '**open**' option under the drop-down menu to locate and open existing **Saved Snapshots**.

Alternatively, **Export** the graph results to CSV.

Or obtain a **Shareable Link** that will enable the snapshot to be viewed outside of the Gemini Explore SaaS platform.



9.0 Purge the Graph Database

During various iterations of the data modeling process it is often necessary, in fact, best practice, to purge the database and re-run the data import Flows. This will guarantee a clean database reflecting the most recent changes made to all of the Flows.

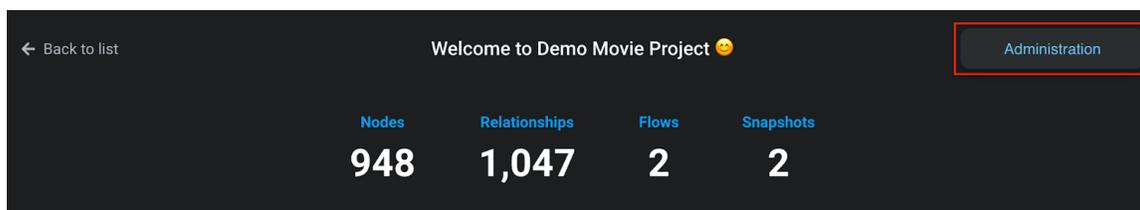
This **Tutorial** was basic and amendments made to the models were such that this was not entirely necessary, however, it is important that this process is understood if you are creating your own Graph projects.

Database purging is achieved not from **Data Modeling** but from the project's **Home** dashboard.

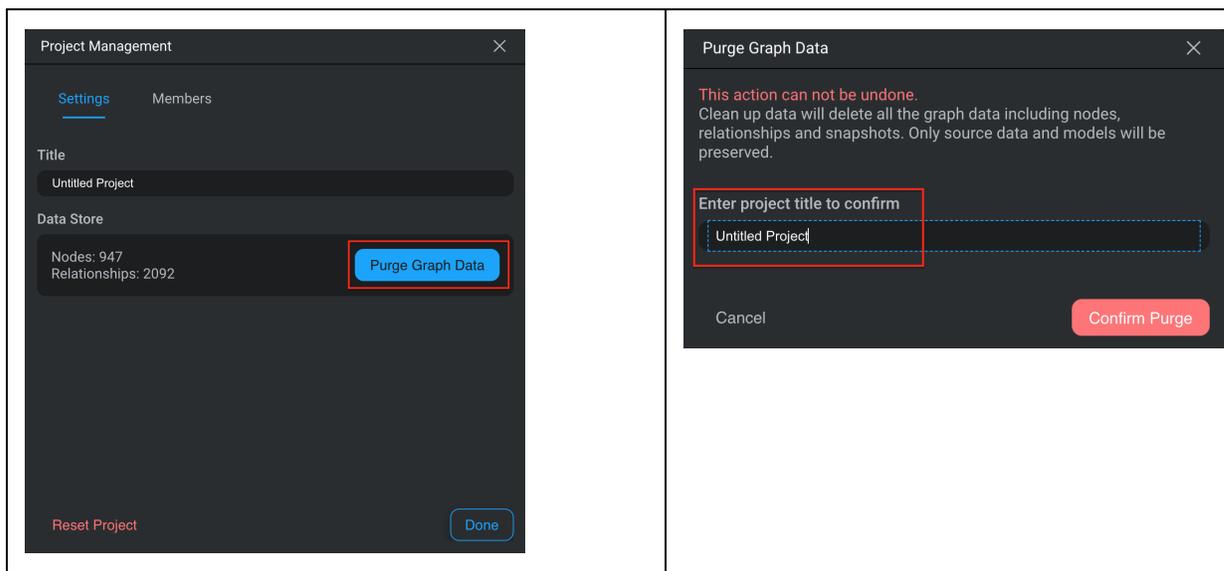
9.1 Select the '**Home**' option from the **Main Menu** to open the project's **Home** dashboard and locate the '**Administration**' button.

This will allow the operator - given the correct permissions - to assign others **Permission** to the Project, **Purge** data from the Project, or **Reset** the Project completely.

Note: If you have other Projects available that you wish to manage, use the '**Back to list**' link.



- 9.2 Select the **'Administration'** button to access the current project. At the following screen (see below), select the **'Purge Graph Data'** button, and a second confirmation screen will appear. The purge will only complete if you type the exact Project Name into the confirmation entry box, and select the **'Confirm Purge'** button.



Simply select the **'Done'** button when it appears. This can take a few minutes for a large database.

Note:

The status of the Project, ie. number of Nodes and Relationships, will not change to zero until you have refreshed the web browser (F5)

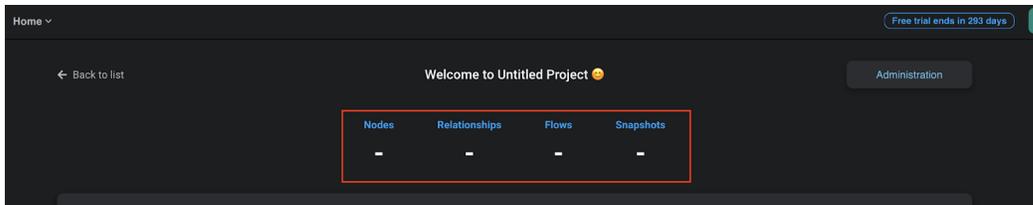
- 9.3 To re-ingest data, simply re-run the required **Flows** from the **Data Modeling Dashboard**.

Be aware that you will need to wait for the purge to reach **'Completed'** status, before continuing to import data. This status is determined following a refresh of your browser showing the project's **Home** dashboard.

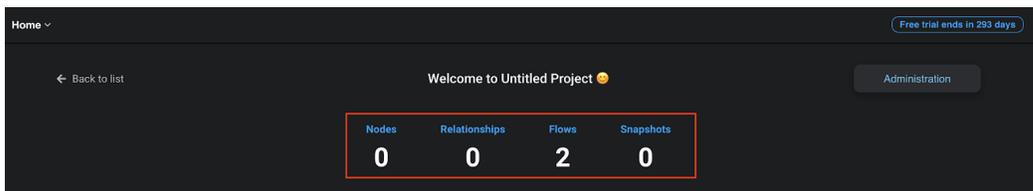
Following a browser refresh, check that the number of Nodes, Relationships, Flows, and Snapshots are represented by an integer. Any presence of the '-' symbol suggests that the purging process is incomplete.

Keep refreshing your browser until you see the '-' symbol replaced with integers as shown below.

Purge status: 'In Progress'



Purge status: 'Completed'



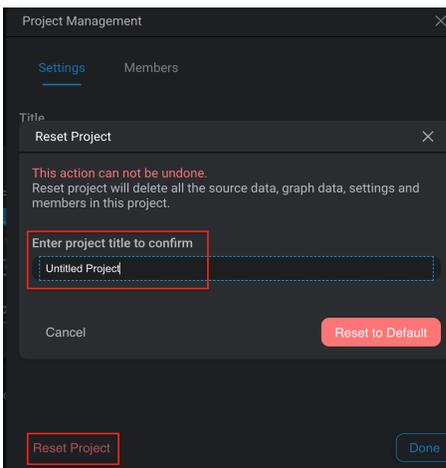
9.4 Flows are listed alphabetically, to change the order of your **Flows** during re-ingestion, which can be crucial to populate the graph database correctly, edit the Flows to have a different Flow Name (see below for an example using a simple number system).

| Flows | |
|----------------------|-------------------------------------|
| Name | Status |
| 01_Movies-CSV-Films | Completed (at 19/07/2022, 12:54:32) |
| 02_Movies-CSV-Actors | Completed (at 19/07/2022, 05:27:44) |

10.0 Project Reset

A full Project **'Reset'** will remove all the Source Data, the Graph database, modifications to canvas icons, and any conditional formatting that has been applied. It should not, therefore, be necessary to perform a reset unless you wish to remove everything except for the data models.

The actual process is similar to a Purge. Select the **'Reset'** button, and confirm the Project Name to complete the reset operation.



11.0 Main Toolbar Options

The **Main Toolbar** at the top of the screen has a set of convenient icons that help you navigate the canvas and change the way it appears.

Undo the Last Function



Redo the Last Function



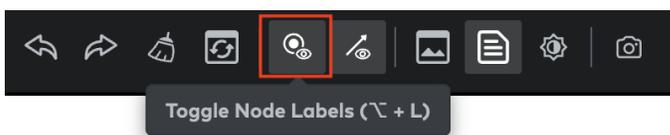
Clear the Canvas



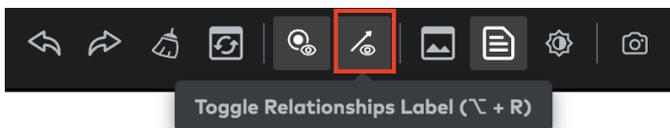
Redraw the Canvas



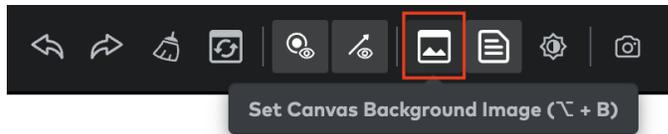
Show or Remove Node Labels



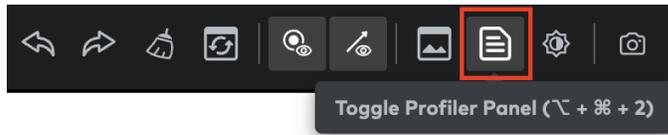
Show or Remove Relationship Labels



Upload an Image to be used as the Background



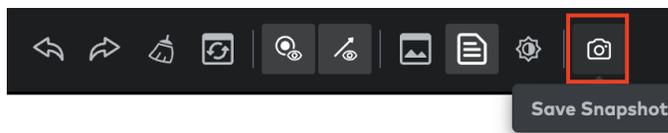
Show or Remove Profiler Panel



Toggle between Light and Dark canvas Backgrounds



Create a Saved Snapshot



12.0 Keyboard Shortcuts

These can be obtained from the Help Menu, top right of the screen. These can help you navigate the Exploration canvas quickly and efficiently.

7.0 Further Support

Further details regarding; the minimum requirements, installation, and setup of Gemini Explore, please email the following and one of our Support staff who will be only too happy to assist.

explore_trial@geminiexplor.com

A selection of Videos is available on our Website that detail how to work with Gemini Explore.

<https://www.geminiexplor.com/videos/>

Check out our Website for more information about this and other products that we have created.

<https://www.geminiexplor.com>
