

# ANIMELIST DATASET

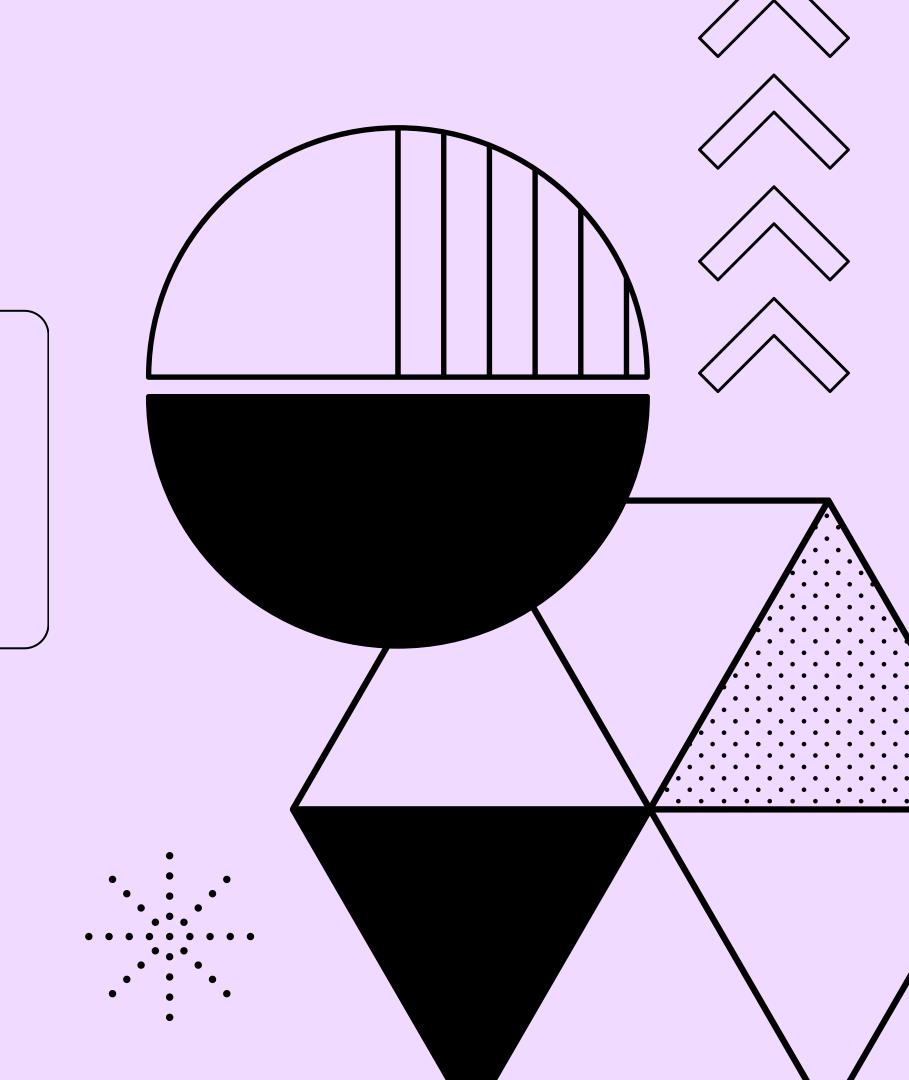
Integrantes: Amaro Zurita

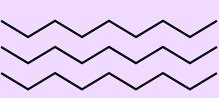
Javier Facondi

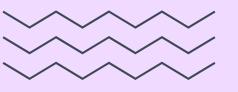
Marco Martinez

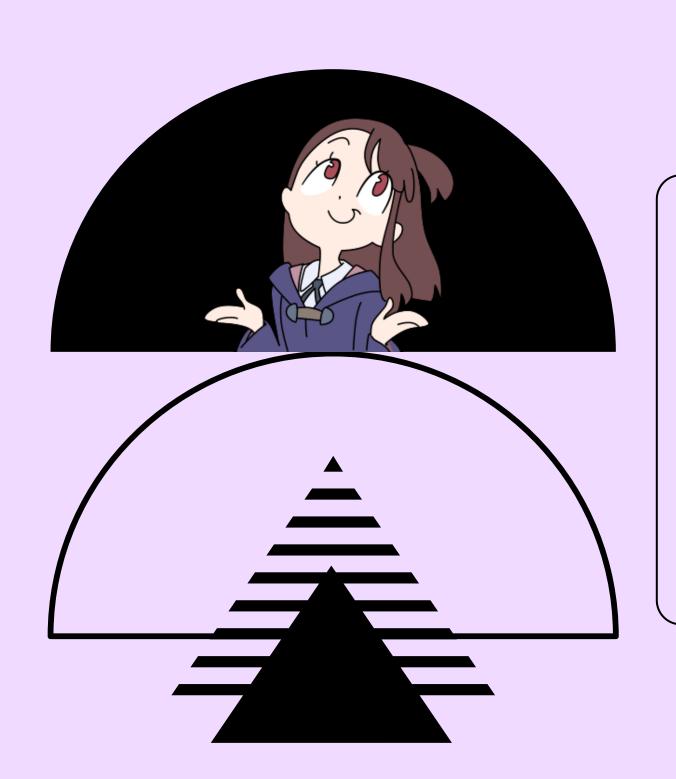
Mario Fuentes

Pedro Escobar



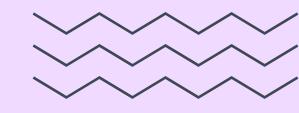


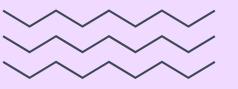


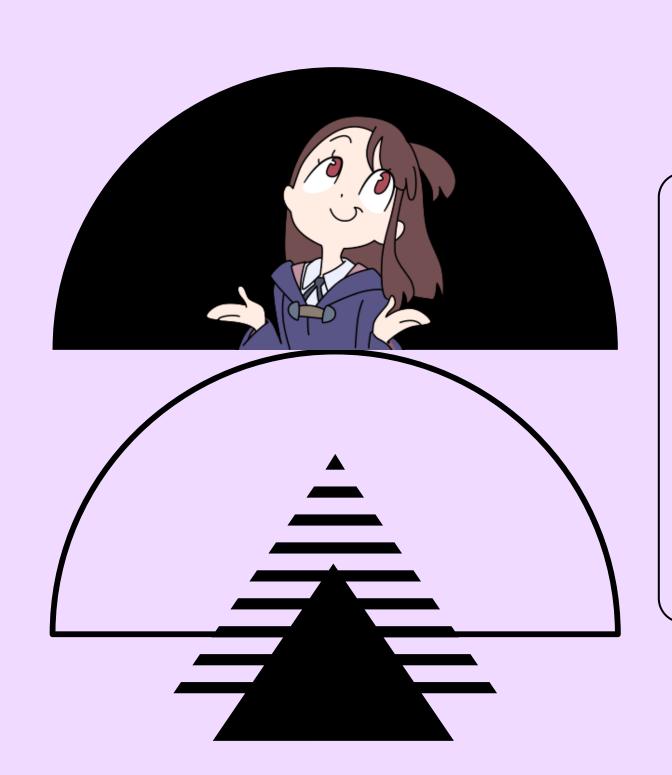


#### Motivacion

¿Cuál es el contexto general del tema/problema/datos de estudio?

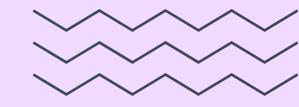


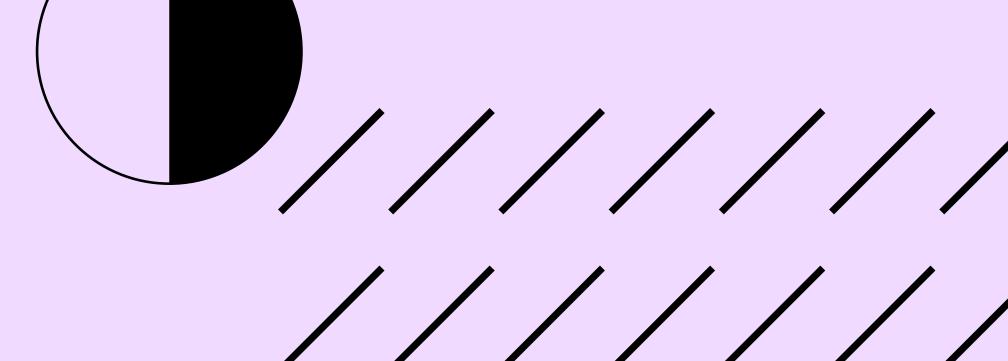




### Objetivos

¿Por qué podría ser interesante estudiar estos datos?





#### Preguntas y Problemas.

#### 01

¿Qué características de un anime (género, estudio de animación, número de episodios) son más predictivas de una alta puntuación (mayor a 8) en MyAnimeList?

#### 02

¿Existirá la posibilidad de predecir el estudio de animación con ciertas características de un anime?

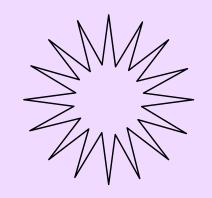
#### 03

¿Existen patrones
temporales (meses o años)
en los que se lancen más
animés de alta calidad
(puntuación > 8)?

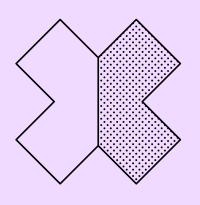




Filtracion de OVA`s y peliculas

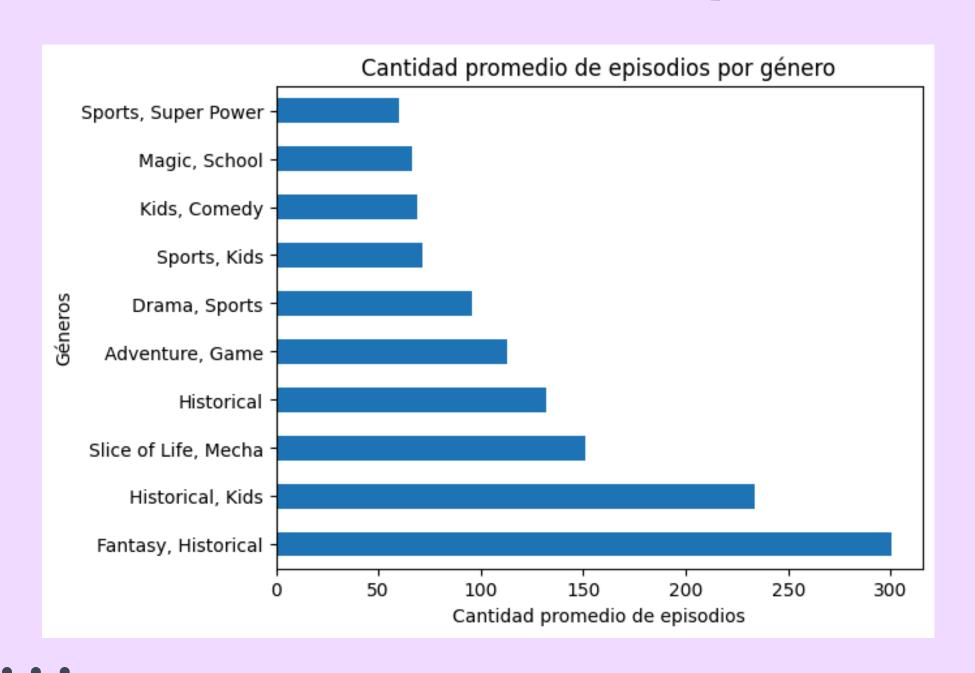


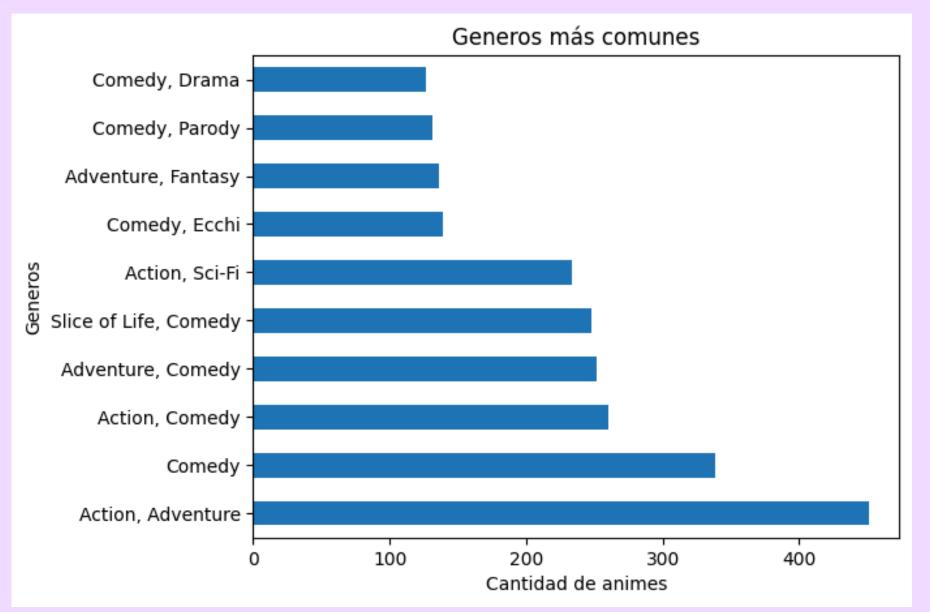
Filtración de Columnas



Filtración de animes que aun no finalizan

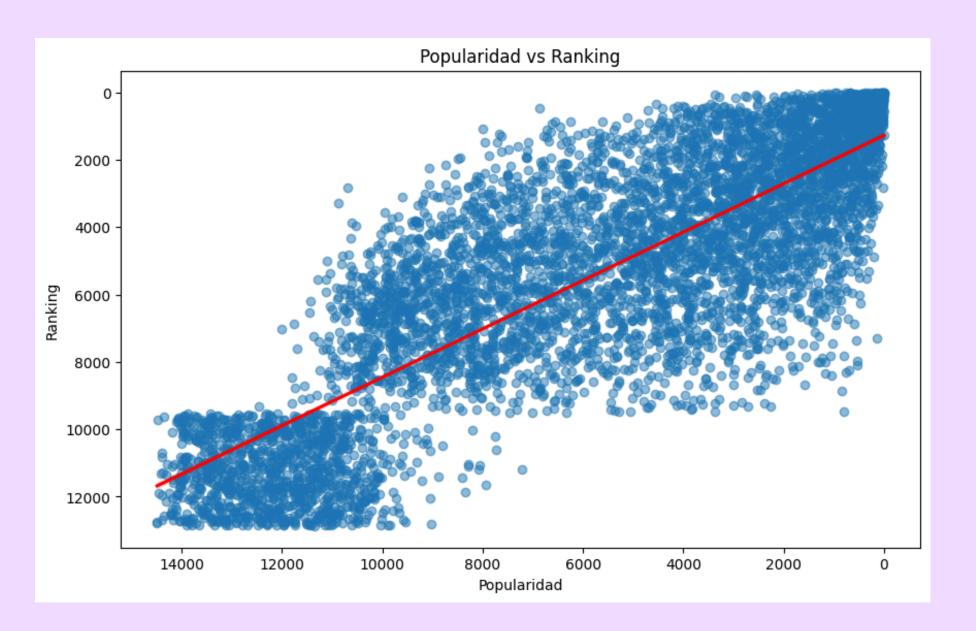


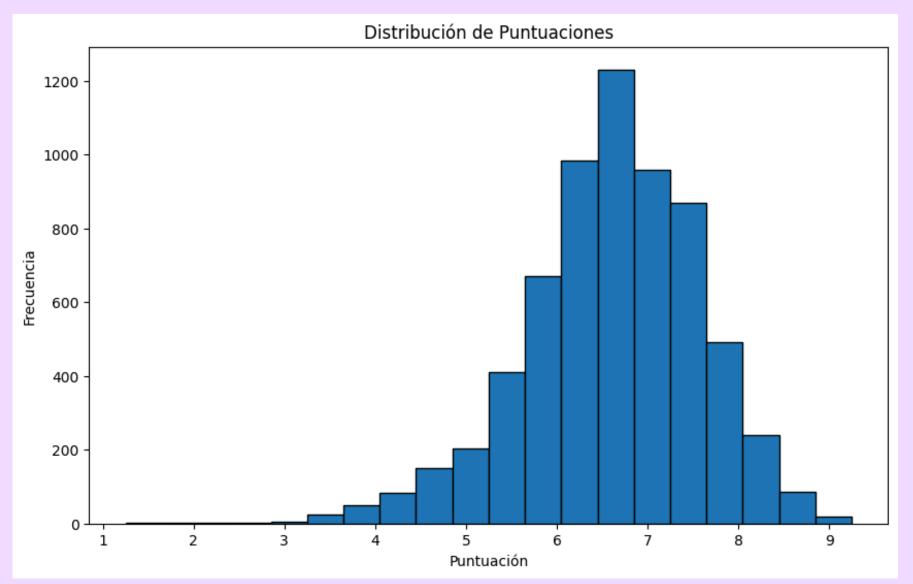


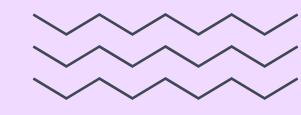


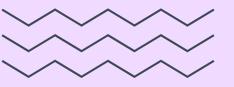


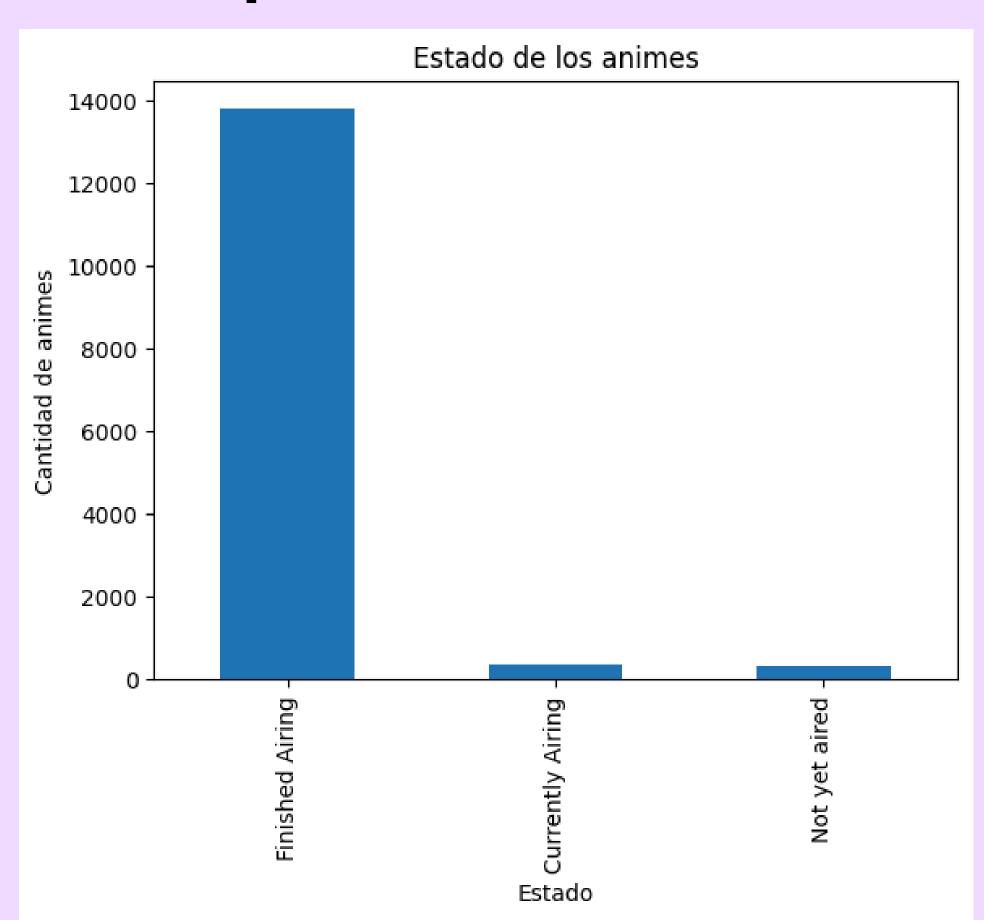


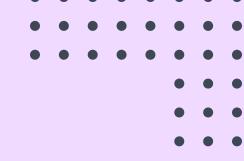


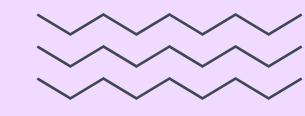


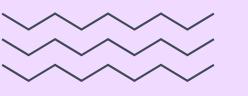












## ¿QUÉ CARACTERÍSTICAS DE UN ANIME (GÉNERO, ESTUDIO DE ANIMACIÓN, NÚMERO DE EPISODIOS) SON MÁS PREDICTIVAS DE UNA ALTA PUNTUACIÓN (MAYOR A 8) EN MYANIMELIST?

#### Metodología

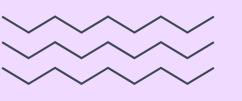
#### Modelos a entrenar

- Decision Tree
- Random Forest
- Gradient Boosting

#### Atributos a usar

- Genero
- Estudio de animación
- Cantidad de episodios





## ¿QUÉ CARACTERÍSTICAS DE UN ANIME (GÉNERO, ESTUDIO DE ANIMACIÓN, NÚMERO DE EPISODIOS) SON MÁS PREDICTIVAS DE UNA ALTA PUNTUACIÓN (MAYOR A 8) EN MYANIMELIST?

#### ¿Cúal es la importancia de los atributos?

#### **Decision Tree**

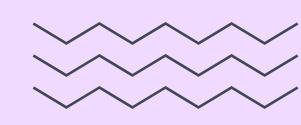
Característica	Importancia
genre_encoded	0.5667
studio_encoded	0.2846
normalized_episodes	0.1486

#### Random Forest

Característica	Importancia
genre_encoded	0.4986
studio_encoded	0.3204
episodes	0.1811

#### **Gradient Boosting**

Característica	Importancia
genre_encoded	0.4613
studio_encoded	0.3093
episodes	0.2294





## ¿QUÉ CARACTERÍSTICAS DE UN ANIME (GÉNERO, ESTUDIO DE ANIMACIÓN, NÚMERO DE EPISODIOS) SON MÁS PREDICTIVAS DE UNA ALTA PUNTUACIÓN (MAYOR A 8) EN MYANIMELIST?

#### Intento de mejorar los resultados

Técnica SMOTE: ayuda a equilibrar las clases en los datos de entrenamiento.

Mejora mínima en identificación de animés con altas puntuaciones,

y una reducción en la precisión general de las predicciones.

#### ¿Resultados?

- 1. Genero
- 2. Estudio de animación
- 3. Cantidad de episodios





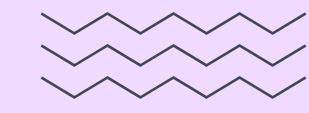
#### Metodología

#### Modelos a entrenar

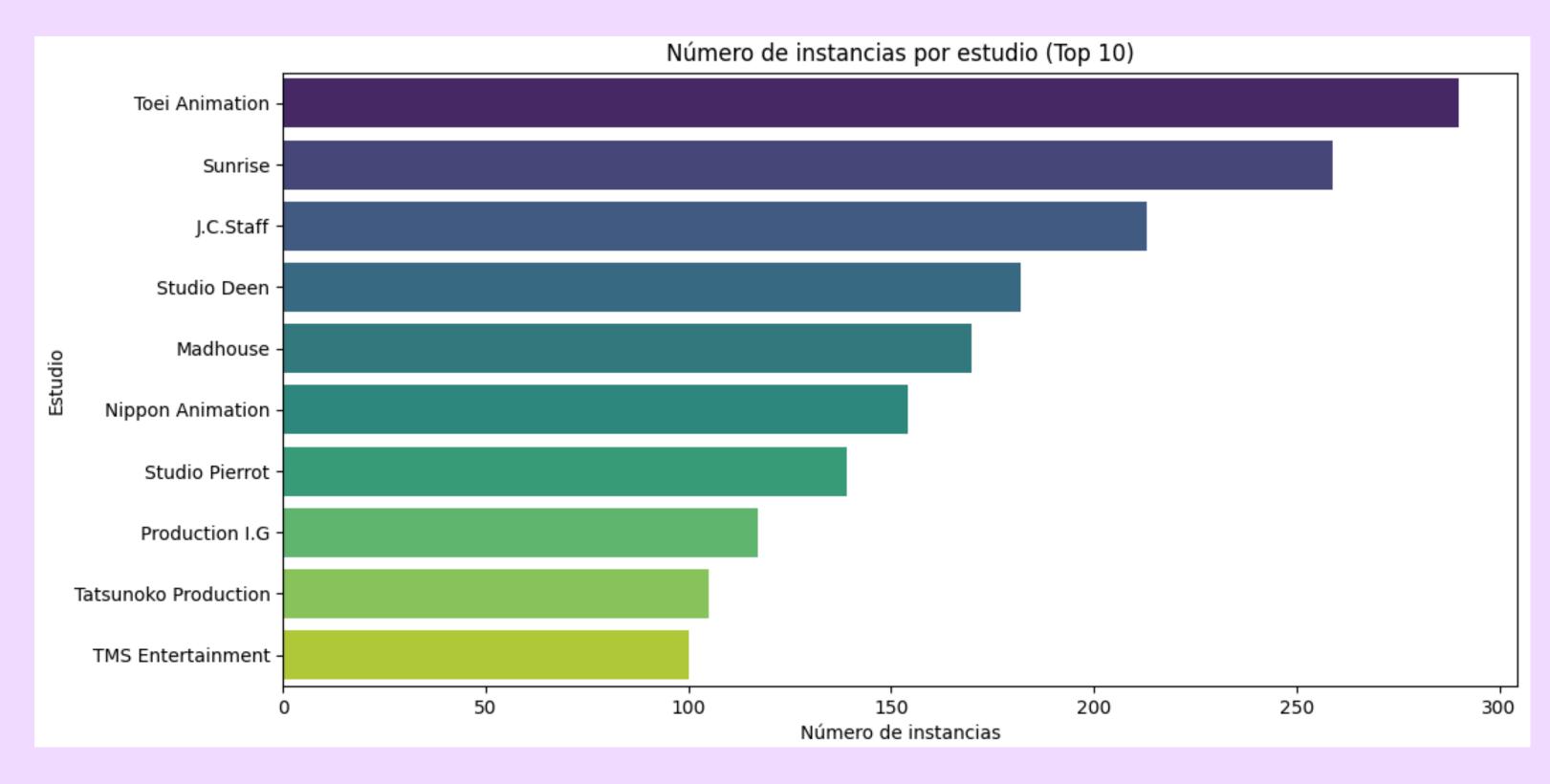
- Decision Tree
- KNeighbors
- GaussianNB
- Support VectorMachine

#### Atributos clave a usar

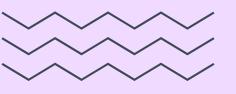
- Genero
- Puntuación
- Duración de episodios
- Ranking de animes
- Popularidad











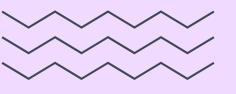
#### Resultados Decision Tree

**Top 10** 

	precision	recall	f1-score
J.C.Staff	0.28	0.24	0.26
Madhouse	0.10	0.09	0.09
Nippon Animation	0.25	0.29	0.27
Production I.G	0.14	0.13	0.14
Studio Deen	0.09	0.08	0.08
Studio Pierrot	0.07	0.07	0.07
Sunrise	0.30	0.37	0.33
TMS Entertainment	0.16	0.15	0.15
Tatsunoko Production	0.06	0.05	0.05
Toei Animation	0.28	0.28	0.28
accuracy			0.20
macro avg	0.17	0.17	0.17
weighted avg	0.20	0.20	0.20

Estudio	Precision	Recall	F1-Score
J.C.Staff	0.40	0.43	0.41
Madhouse	0.21	0.18	0.19
Studio Deen	0.28	0.28	0.28
Sunrise	0.39	0.42	0.41
Toei Animation	0.48	0.47	0.47
accuracy			0.37
macro avg	0.35	0.35	0.35
weighted avg	0.37	0.37	0.37





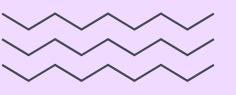
#### Resultados KNeighbors

**Top 10** 

	precision	recall	f1-score
J.C.Staff	0.24	0.48	0.32
Madhouse	0.09	0.12	0.10
Nippon Animation	0.14	0.19	0.16
Production I.G	0.16	0.17	0.17
Studio Deen	0.28	0.22	0.25
Studio Pierrot	0.15	0.07	0.10
Sunrise	0.14	0.13	0.14
TMS Entertainment	0.00	0.00	0.00
Tatsunoko Production	0.09	0.05	0.06
Toei Animation	0.17	0.14	0.15
accuracy			0.17
macro avg	0.15	0.16	0.15
weighted avg	0.16	0.17	0.16

Estudio	Precision	Recall	F1-Score
J.C.Staff	0.33	0.48	0.39
Madhouse	0.10	0.09	0.10
Studio Deen	0.42	0.36	0.39
Sunrise	0.33	0.35	0.34
Toei Animation	0.45	0.36	0.40
accuracy			0.34
macro avg	0.33	0.33	0.32
weighted avg	0.34	0.34	0.34





#### Resultados GaussianNB

**Top 10** 

	precision	recall	f1-score
J.C.Staff	0.17	0.19	0.18
Madhouse	0.24	0.12	0.16
Nippon Animation	0.12	0.74	0.21
Production I.G	0.11	0.04	0.06
Studio Deen	0.08	0.03	0.04
Studio Pierrot	0.00	0.00	0.00
Sunrise	0.25	0.02	0.04
TMS Entertainment	0.00	0.00	0.00
Tatsunoko Production	0.06	0.05	0.05
Toei Animation	0.12	0.09	0.10
accuracy			0.13
macro avg	0.11	0.13	0.08
weighted avg	0.13	0.13	0.09

Estudio	Precision	Recall	F1-Score
J.C.Staff	0.32	0.21	0.26
Madhouse	0.24	0.12	0.16
Studio Deen	0.06	0.03	0.04
Sunrise	0.35	0.15	0.21
Toei Animation	0.35	0.81	0.48
accuracy			0.31
macro avg	0.26	0.26	0.23
weighted avg	0.28	0.31	0.26





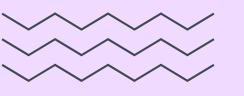
#### Resultados Support Vector Machine

**Top 10** 

	precision	recall	f1-score
J.C.Staff	0.24	0.40	0.30
Madhouse	0.00	0.00	0.00
Nippon Animation	0.00	0.00	0.00
Production I.G	0.00	0.00	0.00
Studio Deen	0.00	0.00	0.00
Studio Pierrot	0.00	0.00	0.00
Sunrise	0.31	0.08	0.12
TMS Entertainment	0.00	0.00	0.00
Tatsunoko Production	0.00	0.00	0.00
Toei Animation	0.19	0.86	0.31
accuracy			0.21
macro avg	0.07	0.13	0.07
weighted avg	0.11	0.21	0.11

Estudio	Precision	Recall	F1-Score
J.C.Staff	0.27	0.40	0.33
Madhouse	0.00	0.00	0.00
Studio Deen	0.00	0.00	0.00
Sunrise	0.00	0.00	0.00
Toei Animation	0.31	0.86	0.46
accuracy			0.30
macro avg	0.12	0.25	0.16
weighted avg	0.13	0.30	0.18





## ¿EXISTEN PATRONES TEMPORALES (MESES O AÑOS) EN LOS QUE SE LANCEN MÁS ANIMÉS DE ALTA CALIDAD (PUNTUACIÓN > 8)?

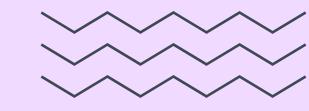
#### Metodología

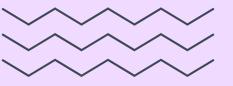
## Métodos de Clustering

- K-Means
- Agglomerative
- DBSCAN

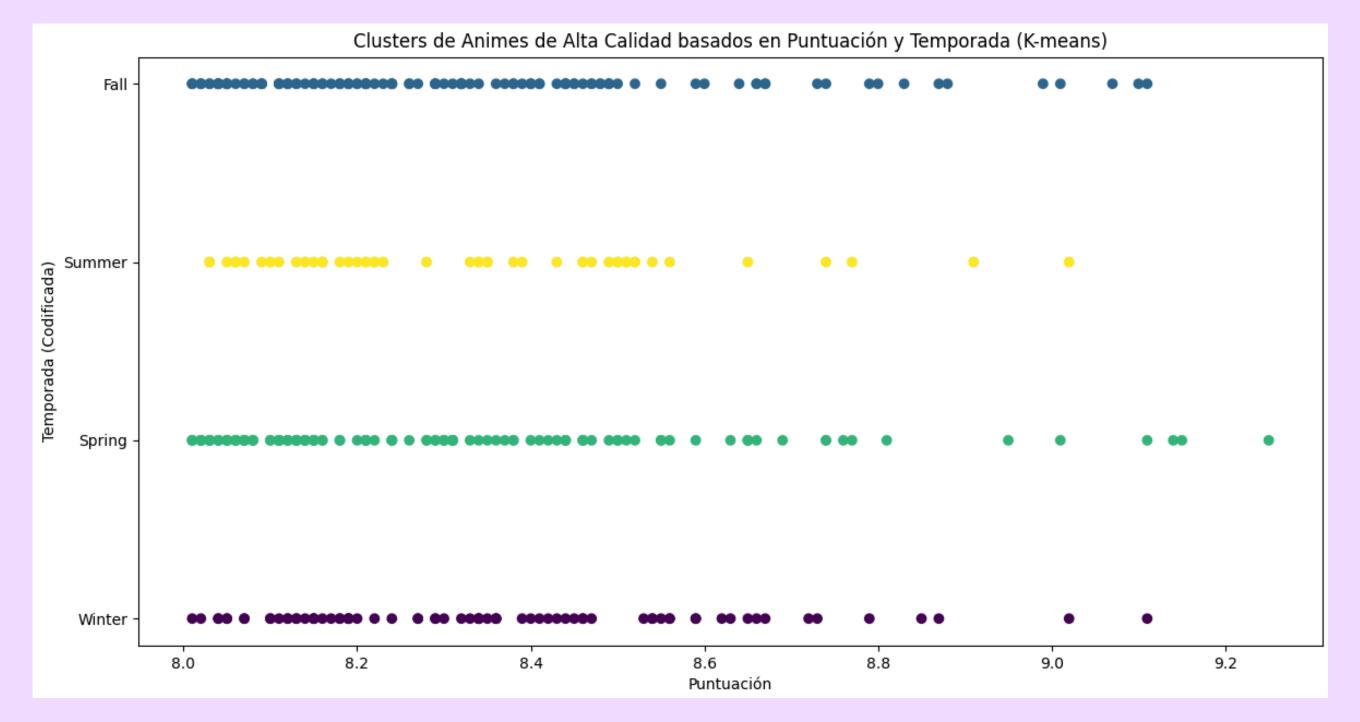
## Atributos clave a usar

- Fechas de lanzamiento
- Puntuación
- Temporada





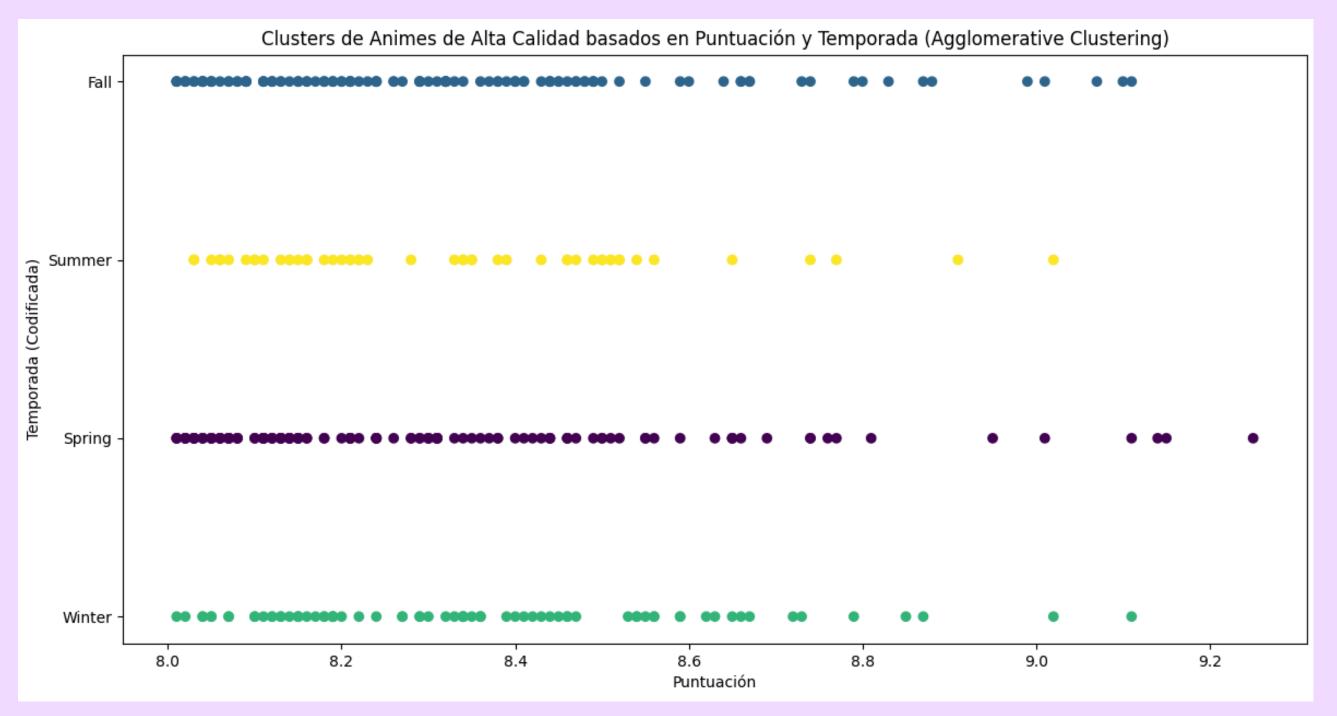
#### PUNTUACIÓN VS TEMPORADA

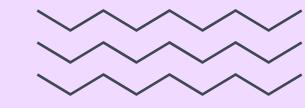


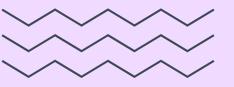




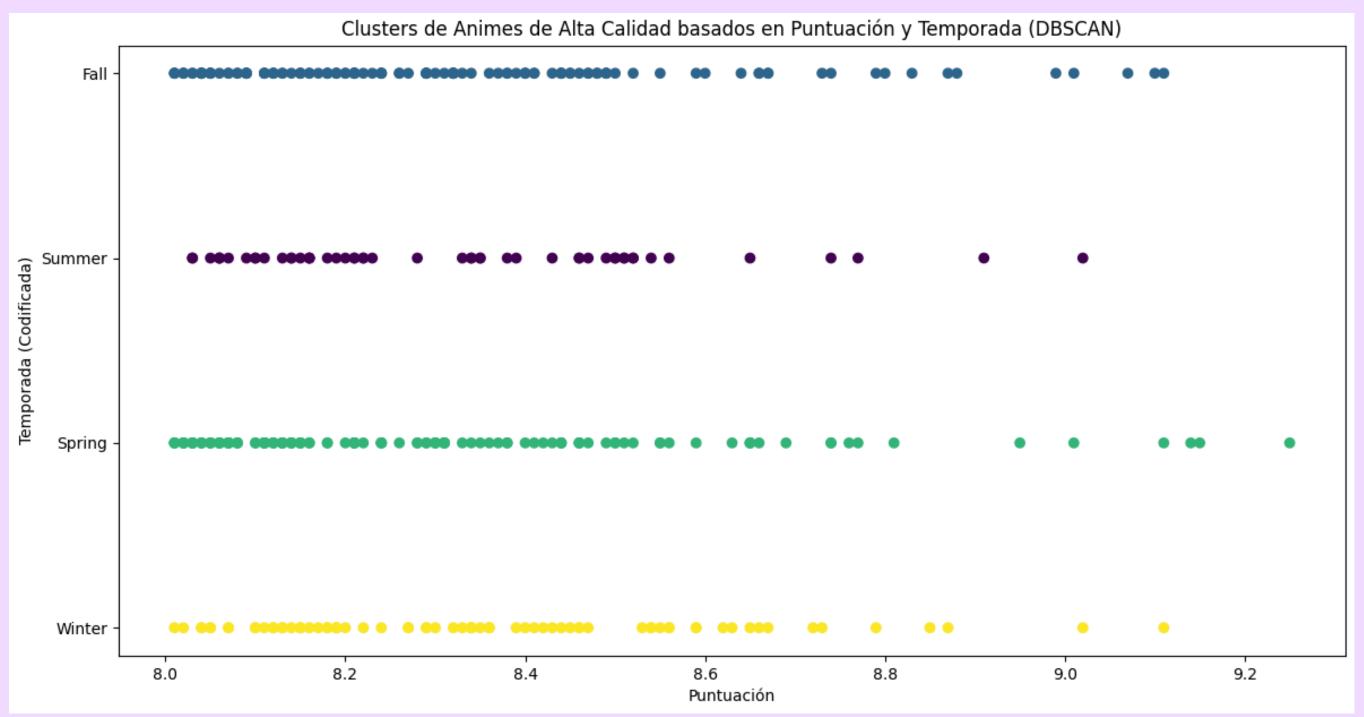
#### PUNTUACIÓN VS TEMPORADA

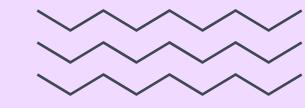


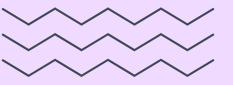




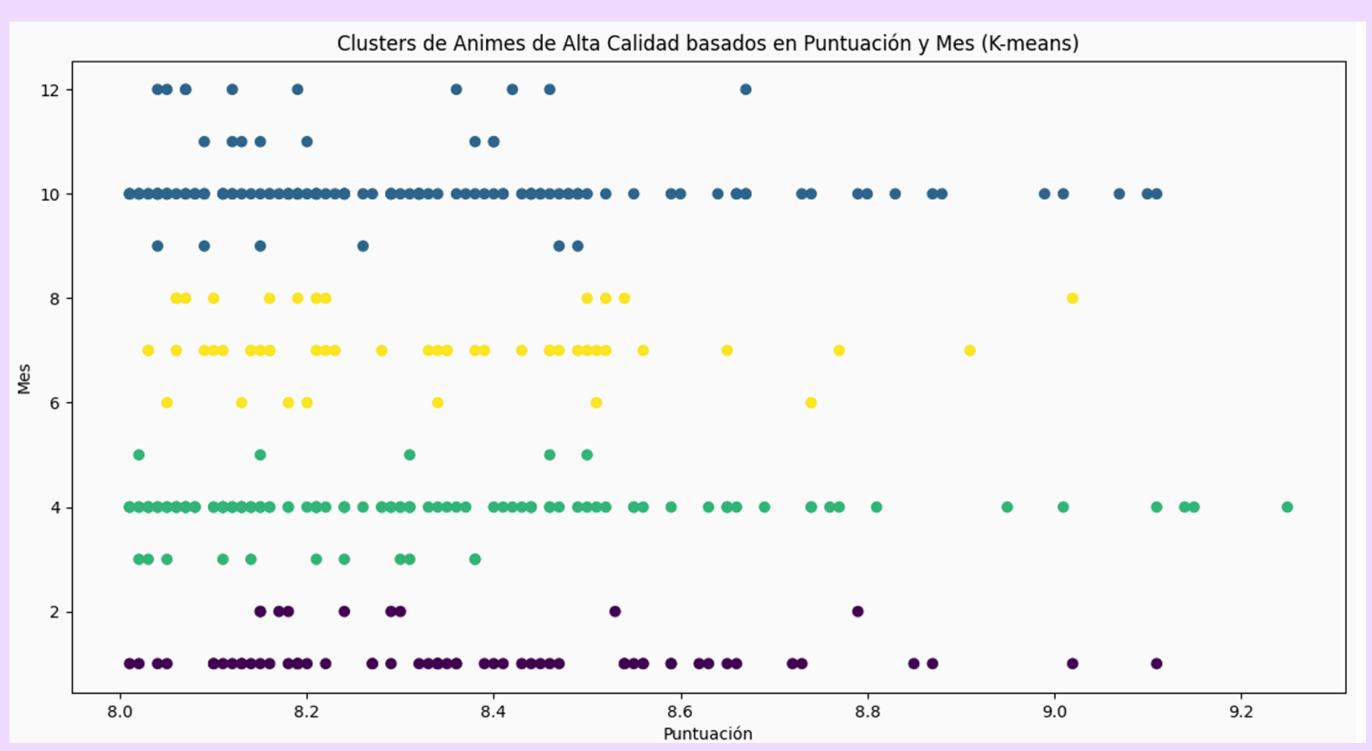
#### PUNTUACIÓN VS TEMPORADA



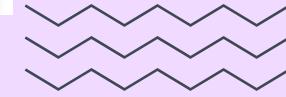




#### **PUNTUACIÓN VS MES**

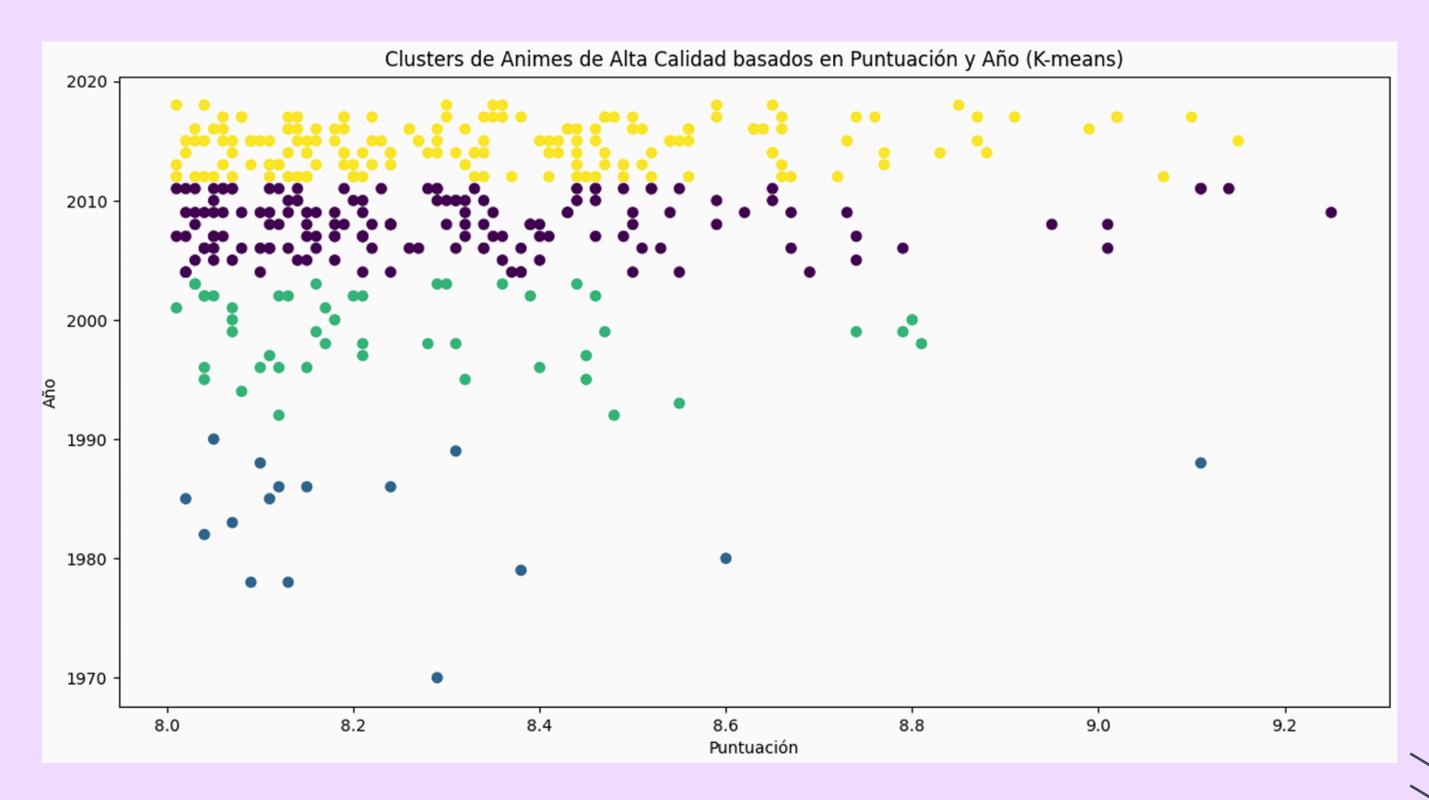


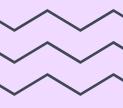


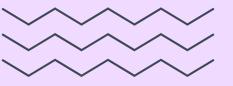




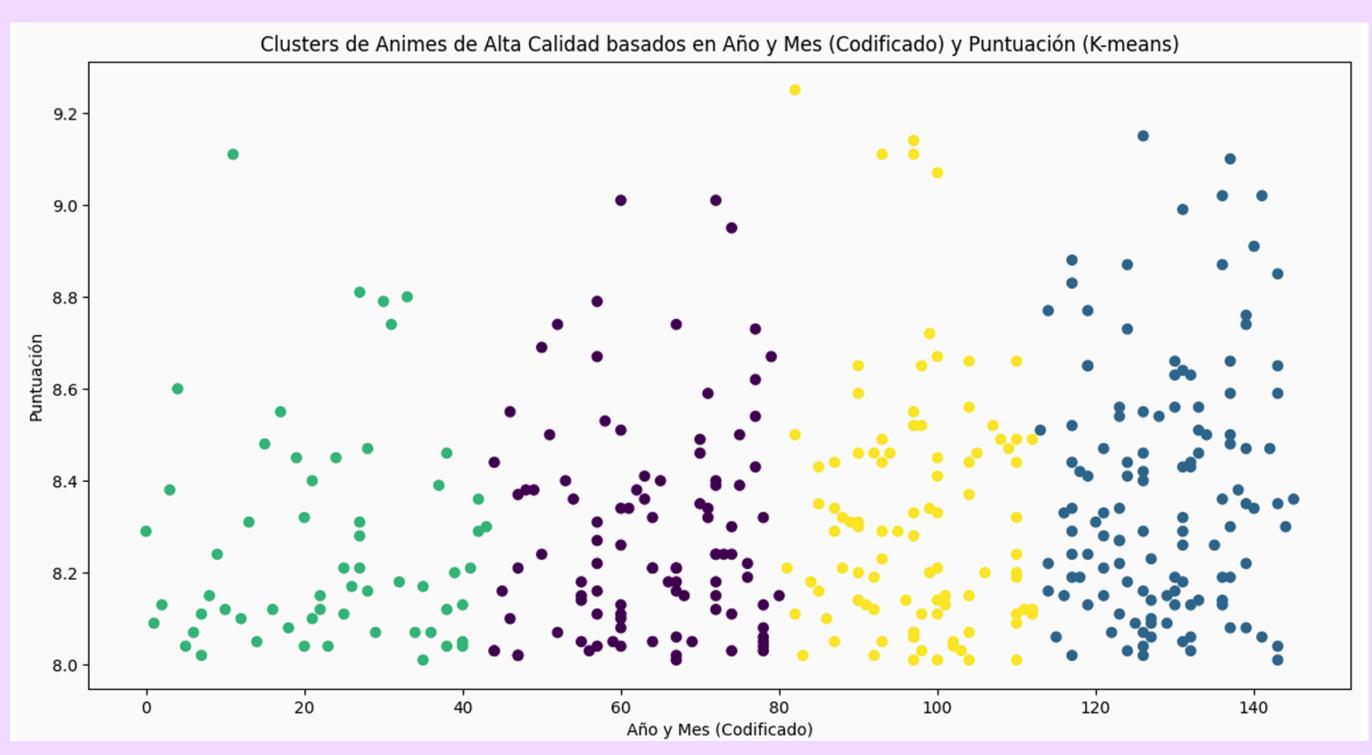
#### **PUNTUACIÓN VS AÑO**



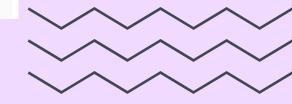


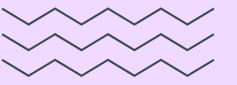


#### PUNTUACIÓN VS AÑO Y MES

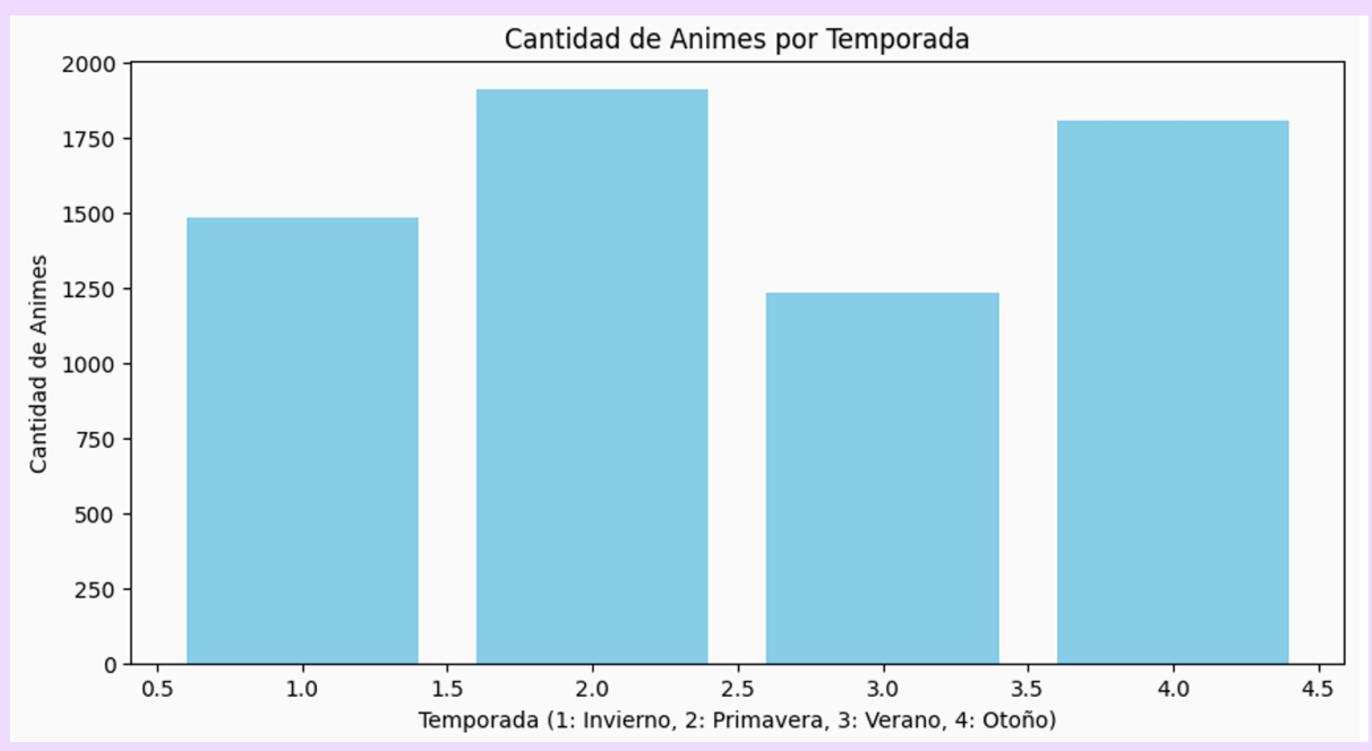






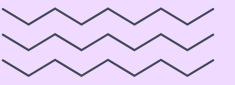


#### CANTIDAD DE ANIMES POR TEMPORADA

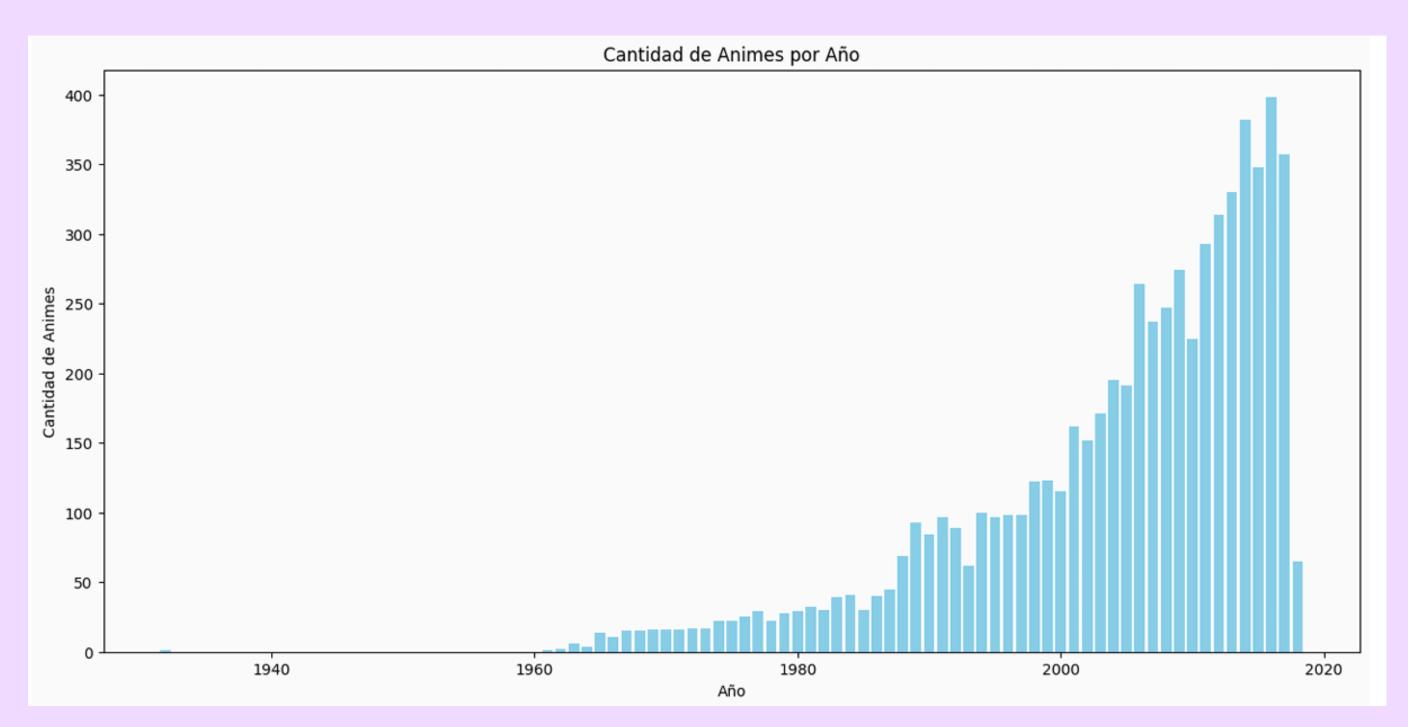








#### CANTIDAD DE ANIMES POR AÑO







## ¿EXISTEN PATRONES TEMPORALES (MESES O AÑOS) EN LOS QUE SE LANCEN MÁS ANIMÉS DE ALTA CALIDAD (PUNTUACIÓN > 8)?

#### Resultados

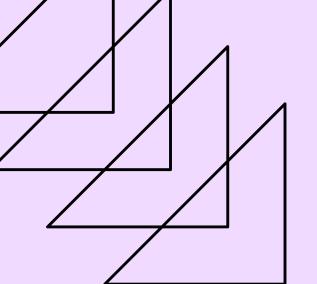
#### Silhouette Score

• K-Means: 0.452

• Agglomerative: 0.403

• DBSCAN: No encontró suficientes clusters





# ANIMELIST DATASET

Integrantes: Amaro Zurita

Javier Facondi

Marco Martinez

Mario Fuentes

Pedro Escobar

