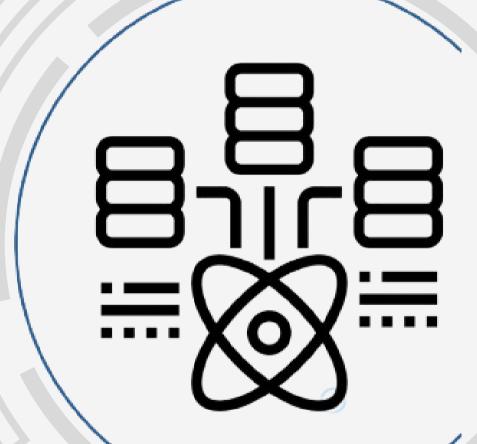


### Contextualización de mis aprendizajes



This module introduces key concepts of Exploratory Data Analysis (EDA), the basics of Machine Learning, including an exploration of Classification and Regression Algorithms as well as Model Evaluation. It also delves into the realms of Text Analysis and Data Mining, acquiring skills to extract valuable information from text-based data. The course emphasizes reading comprehension and vocabulary expansion, enabling learners to grasp the essential terminology and concepts used in the field of data analysis.



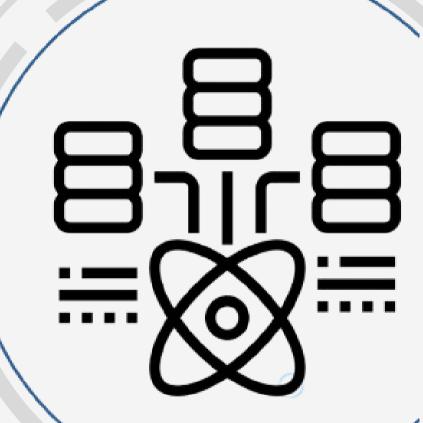




### Contextualización de mis aprendizajes



This module delves into the multifaceted realm of text analysis and data mining techniques, offering participants a comprehensive exploration of methodologies to unlock valuable insights from vast textual datasets. The focus is on equipping learners with the skills necessary to navigate the complexities of text analysis, including natural language processing (NLP), sentiment analysis, and topic modeling. Through hands-on activities and theoretical insights, participants will gain proficiency in utilizing cutting-edge tools and algorithms for extracting meaningful information from unstructured text. The module not only addresses the technical aspects of data mining but also emphasizes the broader implications, such as ethical considerations and the responsible use of text analysis in diverse applications. As language is a dynamic and nuanced medium, participants will enhance their linguistic, pragmatic, and topical competencies to navigate and interpret textual data effectively. The overarching goal is to empower learners to harness the power of text analysis for informed decisionmaking and knowledge discovery in the rapidly evolving landscape of data science.







## Objetivo general



#### **UNIDAD 3**

- To equip participants with the knowledge and skills required to proficiently apply text analysis and data mining techniques for unlocking insights from diverse textual datasets.
- Participants will explore methods such as natural language processing, sentiment analysis, and topic modeling, gaining practical experience in leveraging cutting-edge tools and algorithms.





# Competencias a desarrollar

- Linguistic competence.
- Pragmatic competence.
- Sociolinguistic competence.

**Linguistic Competence:** acquiring a comprehensive understanding of key terms and concepts related to text analysis and data mining, including proficiency in interpreting and utilizing relevant vocabulary associated with probability theory, discrete and continuous distributions, confidence intervals, p-values, hypotheses, and significance.

Pragmatic Competence: through hands-on experience in applying text analysis and data mining techniques. Participants will engage in practical exercises and projects that require them to effectively implement these methods, interpret results, and communicate findings. This pragmatic dimension ensures the application of theoretical knowledge to real-world scenarios, enhancing problem-solving skills in the context of data analysis.





# Competencias a desarrollar

Sociolinguistic Competence: exploring the ethical and responsible use of text analysis in various societal contexts. Participants will critically examine the implications of their analyses on different stakeholders, considering ethical considerations, biases, and potential societal impacts.





#### Activación de saberes previos

#### PLANTEAMIENTO DE LA SESIÓN

- 1) Hangman game.
- 2) Keywords socialization.
- 3) Reading comprehension: "What is Text Mining?"
- 4) True/False activity.
- 5) Fill in the blank vocabulary activity.
- 6) Socialization key vocabulary: "Text mining: Definition, techniques, use cases"
- 7) Reading comprehension activity #2:
- "Text mining: Definition, techniques, use cases"
- 8) Multiple choice activity.
- 9) Socialization key vocabulary reading #3: "What is

Text Mining: Techniques and Applications"

### MATERIALES

- Reading: "What is Text Mining?": https://www.ibm.com/topics/t ext-mining
- Reading comprehension activity#2: "Text mining: Definition,techniques, use cases"
  https://datascientest.com/e n/text-mining-all-you-need-to-know





#### Activación de saberes previos

#### PLANTEAMIENTO DE LA SESIÓN

- 10) Reading comprehension #3: "What is Text Mining:
- Techniques and Applications"
- 11) Matching heading definition.
- 12) Socialization of vocabulary: "How to use
- sentiment analysis to analyze customer opinion"
- 13) Reading comprehension: "How to use sentiment analysis to analyze customer opinion"

#### MATERIALES

- Reading: "What is Text Mining: Techniques and Applications":https://www.up grad.com/blog/what-is-textmining-techniques-andapplications/
- Reading: "How to use sentiment analysis to analyze customer opinion": https://sproutsocial.com/insi ghts/sentiment-analysis/



