National school of applied sciences Al-Hociema

BIG DATA

PATENT ANALYSIS IN VIRUS ENGINEERING

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BIG DATA PRESENTATION

ENSAH

INTRODUCTION:

GENETIC ENGINEERING

- **What is virus engineering?**

Virus engineering is the innovative modification of viral genomes for applications in gene therapy, oncolytic virotherapy, and vaccine development. It involves dissecting viral functions, ensuring quality control, optimizing delivery systems, and using advanced simulations to predict and validate viral evolution.

INTRODUCTION:

- **Importance of patent analysis:**

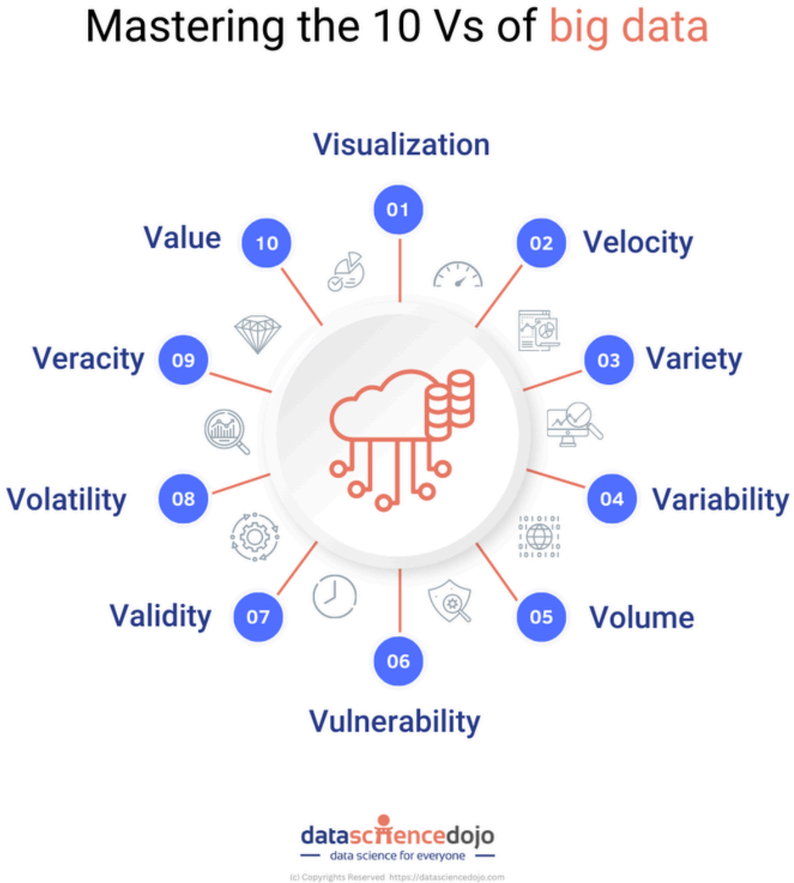
Effective patent analysis provides valuable insights, helps manage risks, supports strategic decision-making, and enhances a company's ability to innovate and compete in today's rapidly evolving technological landscape.

1. **Technology Landscape Analysis**
2. **Competitive Intelligence**
3. **Innovation Trends**
4. **Prior Art Search**
5. **Market Insights**
6. **Technology Transfer and Licensing...**

INTRODUCTION:

- **Big data in patent anlysis**

Utilizing big data in patent analysis involves leveraging vast and complex datasets to uncover trends, patterns, and insights within the field of virus engineering. This process enhances our understanding of technological advancements, identifies key players and collaborations, and forecasts future innovations. By analyzing extensive patent information, researchers can better navigate the landscape of virus engineering, fostering breakthroughs in gene therapy, oncolytic virotherapy, and vaccine developmen.



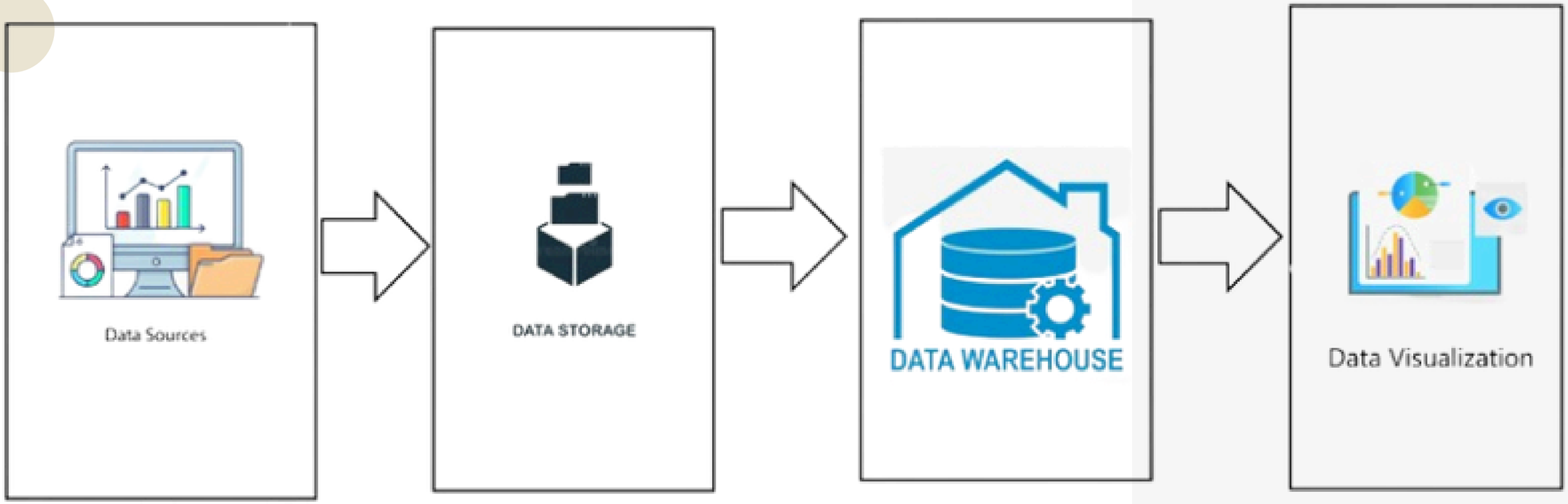
INTRODUCTION:

- **Objectives of the Study:**

- Analyze the evolution of patents in virus engineering over time.
- Examine the contributions and growth of different countries in the field.
- Identify the top inventors and experts in virus engineering.
- Determine the most commonly used languages in virus engineering research and patents.
- Identify the leading authority in virus engineering in 2024.

Navigating the Data Maze: Journey through Virus Engineering Patent Analysis

THE GLOBAL PIPLINE OF BIG DATA PROJECT:



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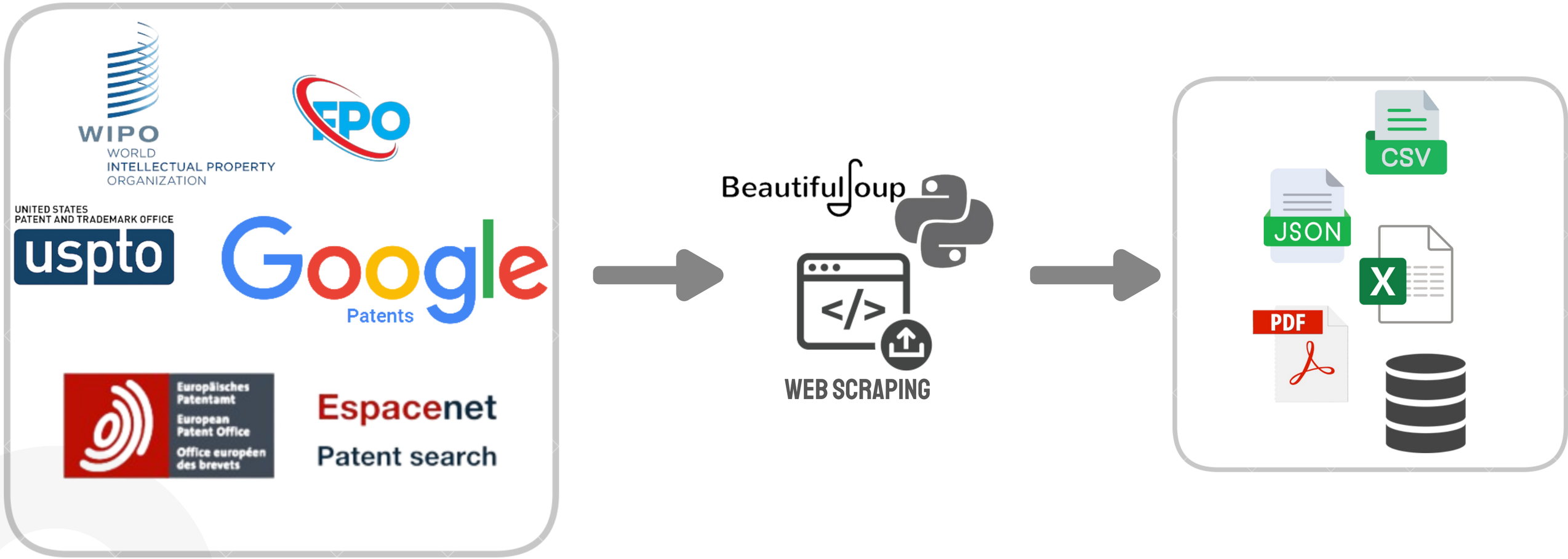
Sourcing



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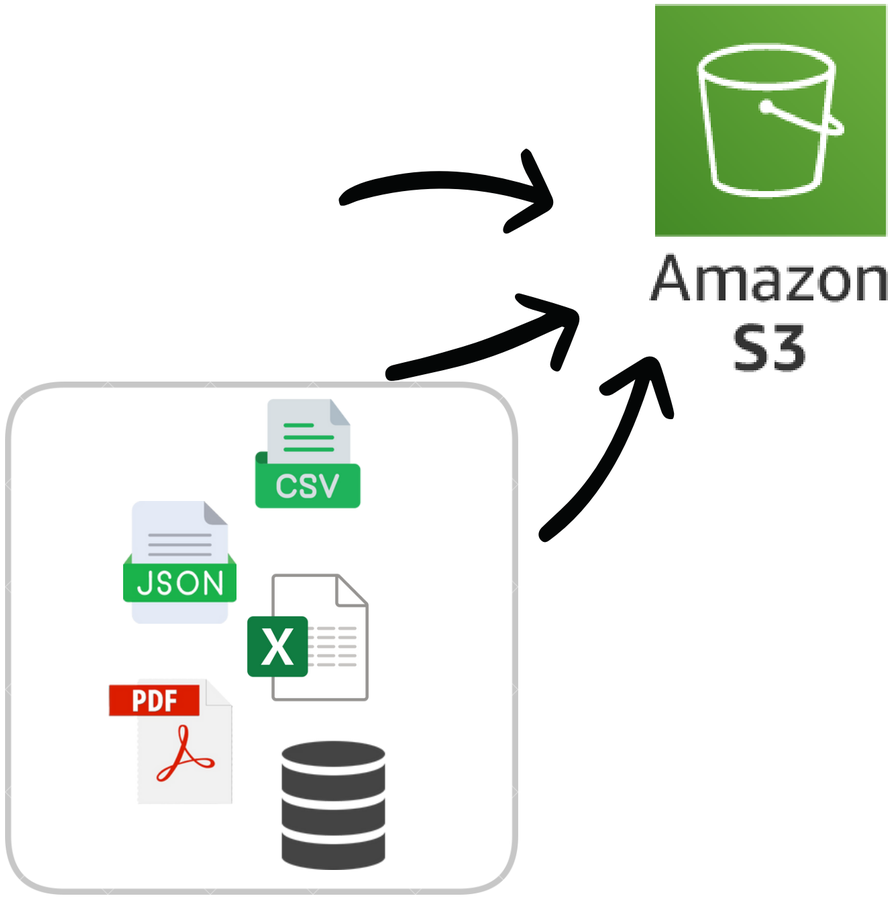

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espacenetpatents_data_v2.csv	csv	May 6, 2024, 10:31:10 (UTC+01:00)	404.2 KB	Standard
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STORAGE:

DATA STUDYING

GOOGLE PATENT

- ID
- T
- itle
- Abstract
- Description
- Claims
- Inventors
- Current
- Assignee
- Patent
- Office
- Publication
- Date
- URL

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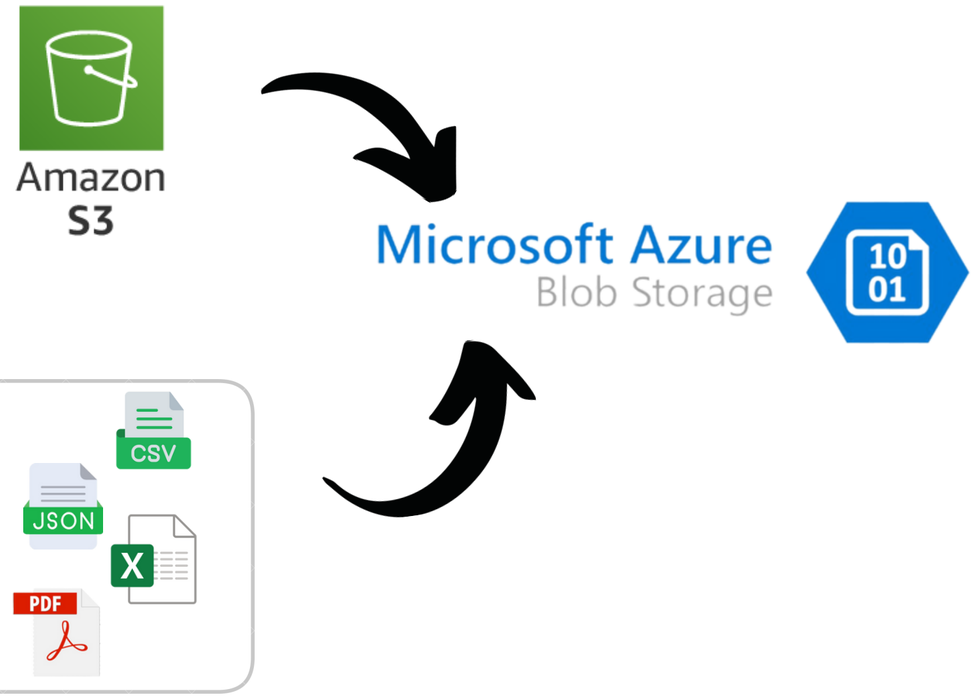
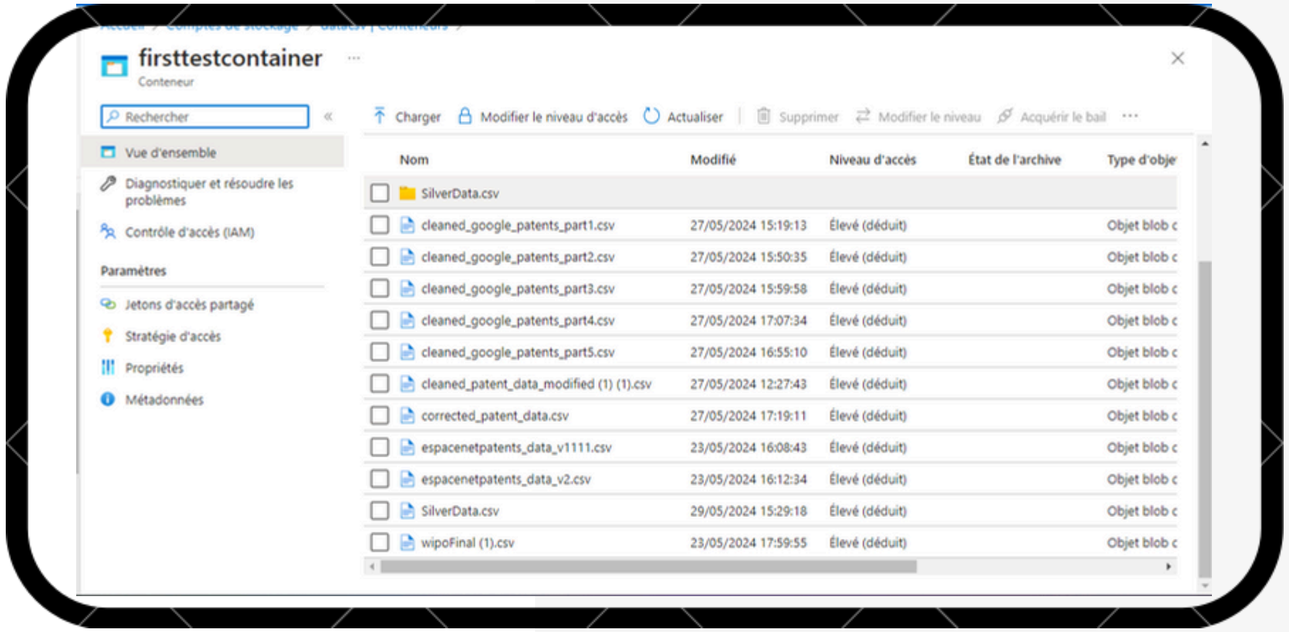




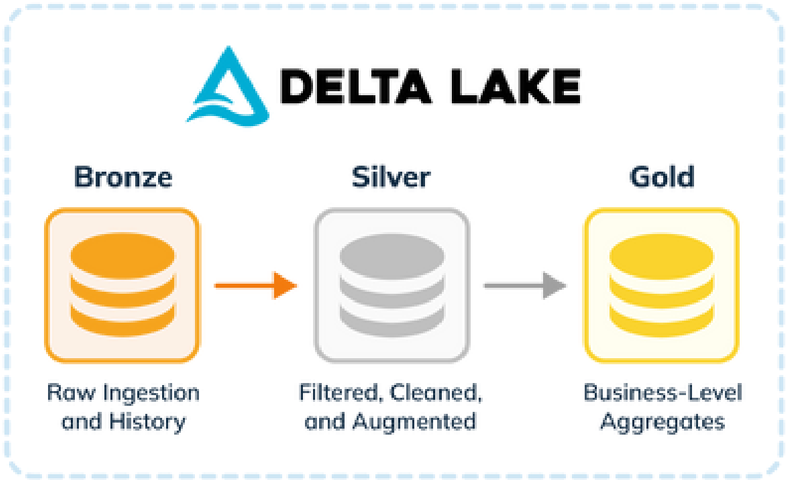
ETL PROCESS AND VISUALISATION:

Azure Data Factory

Azure blob Strorage

Azure SQL Database

Azure Databricks



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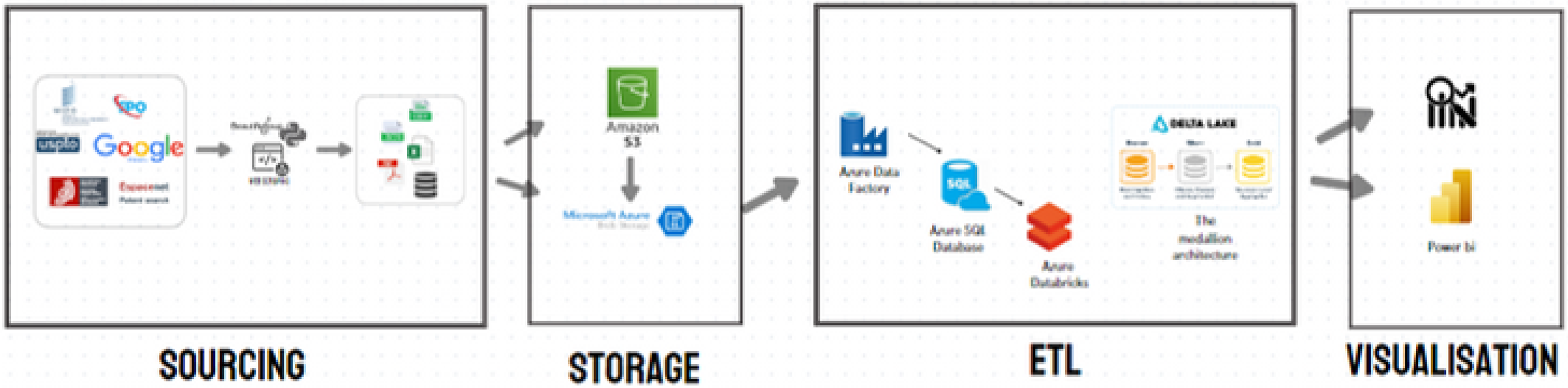
GLOBAL ARCHITECRTURE:



FINAL RESULT:

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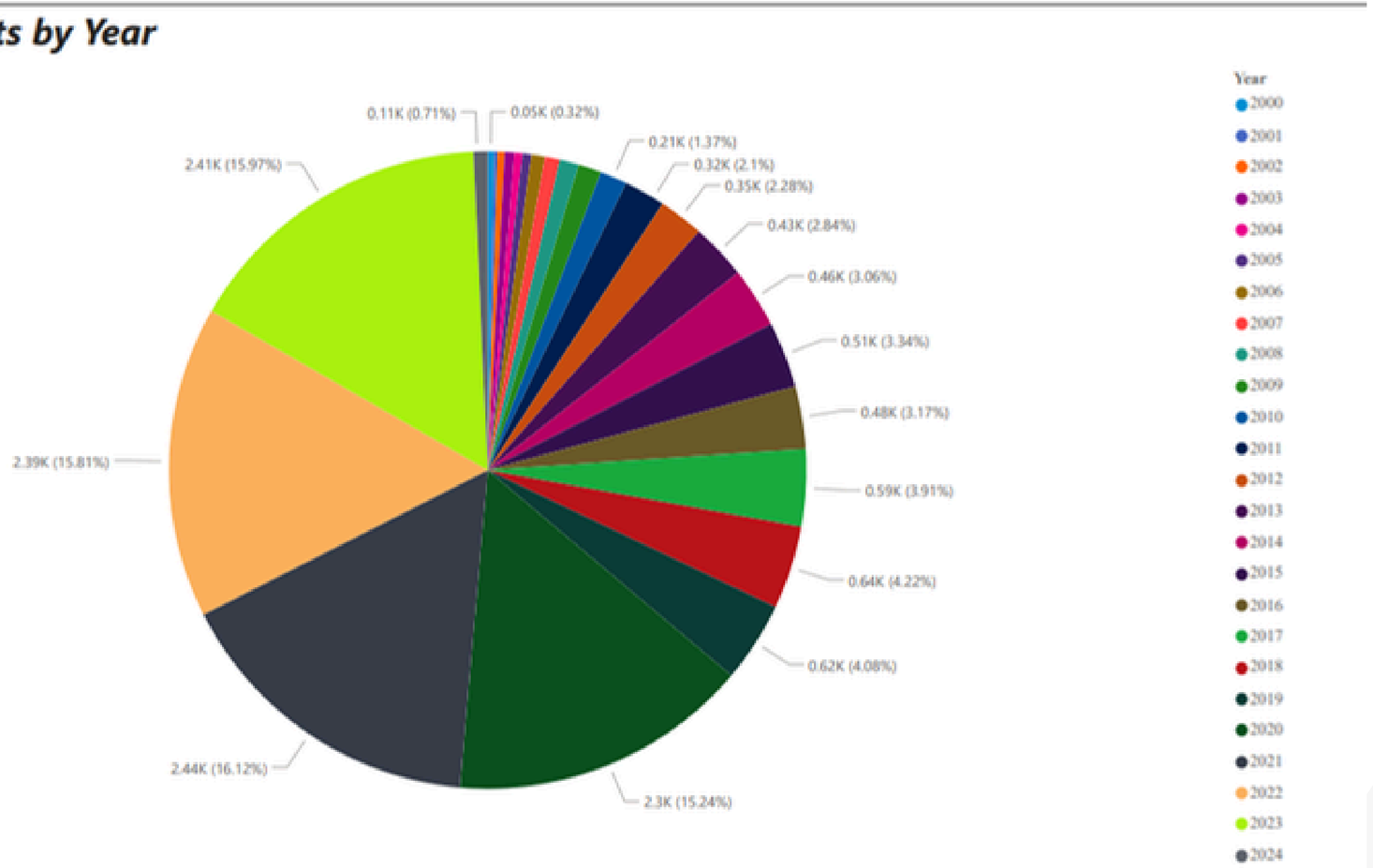

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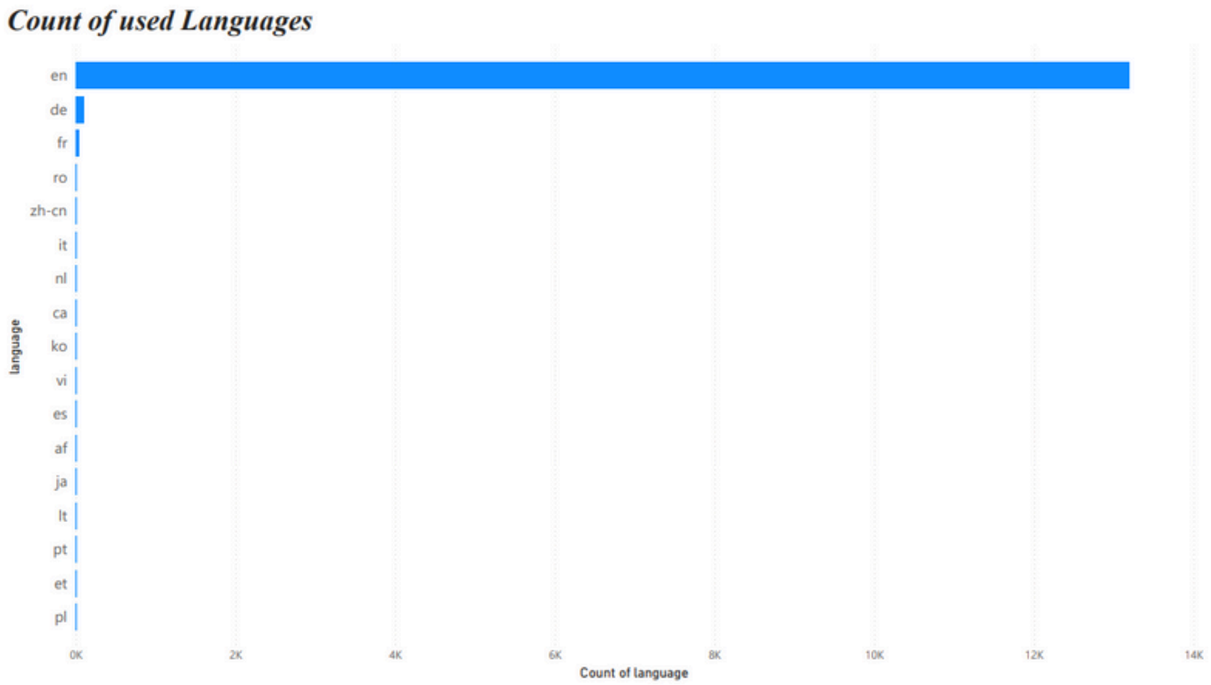

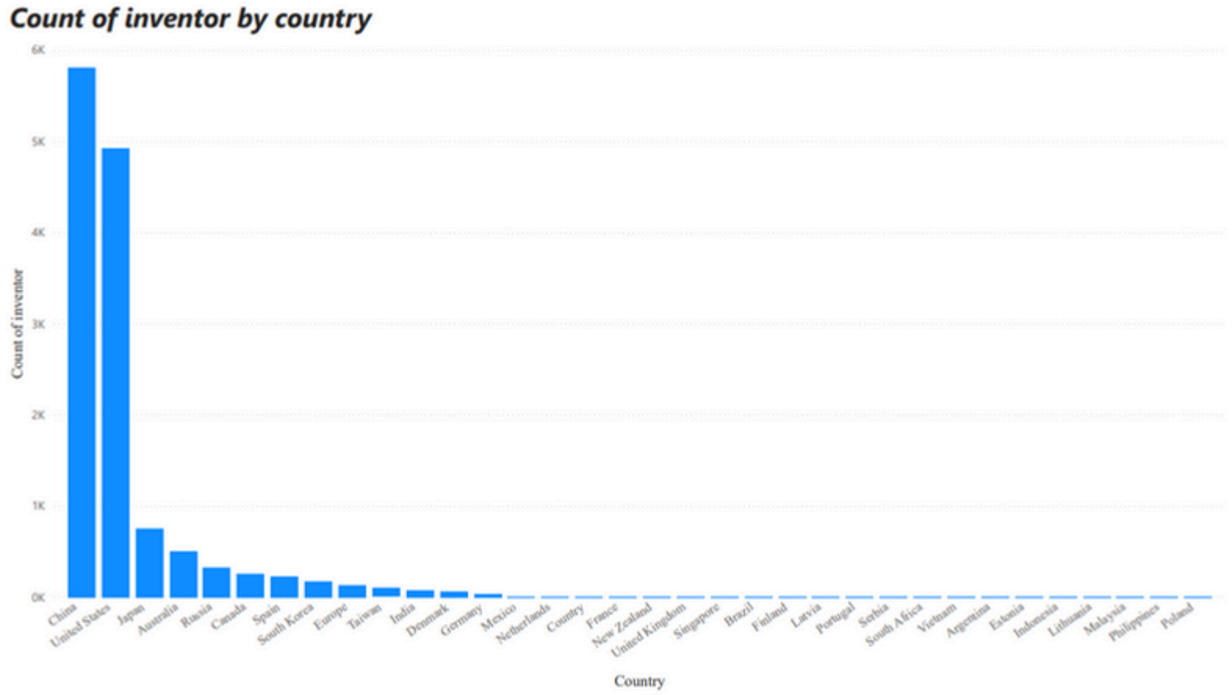

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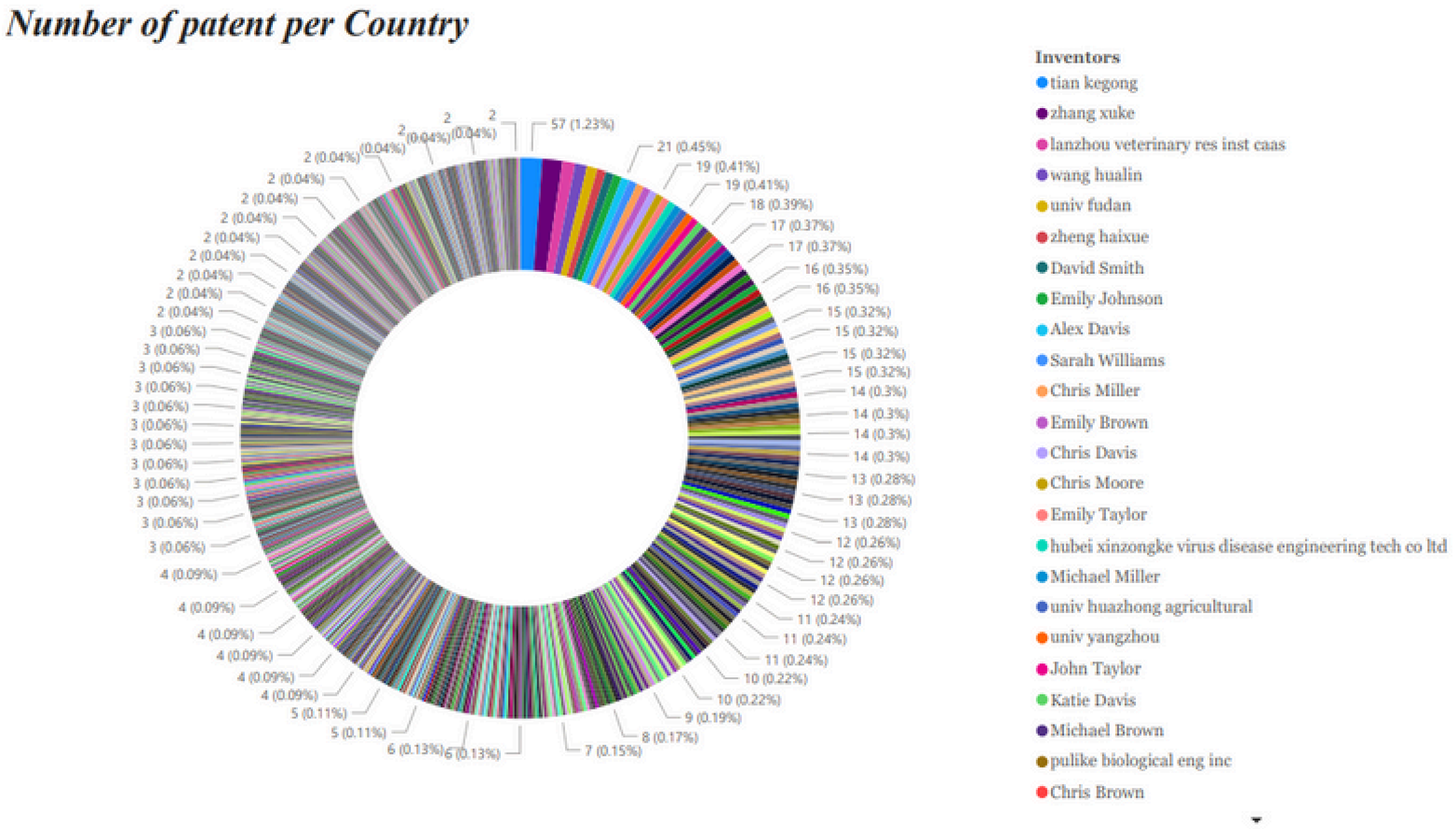

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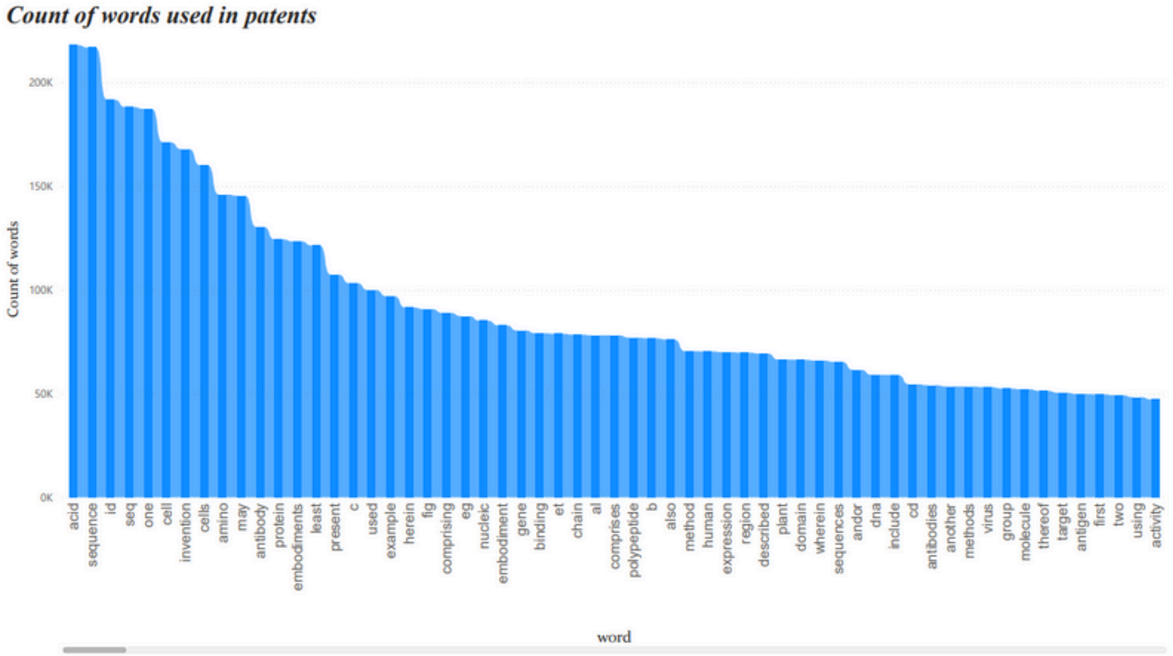

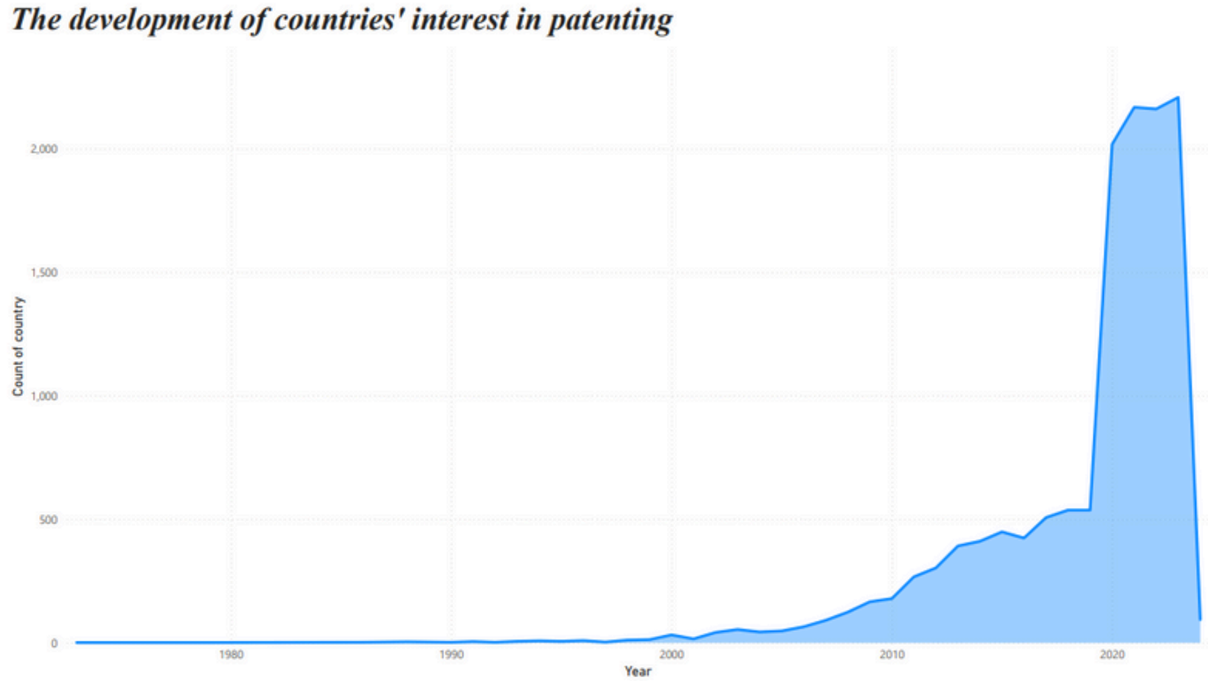

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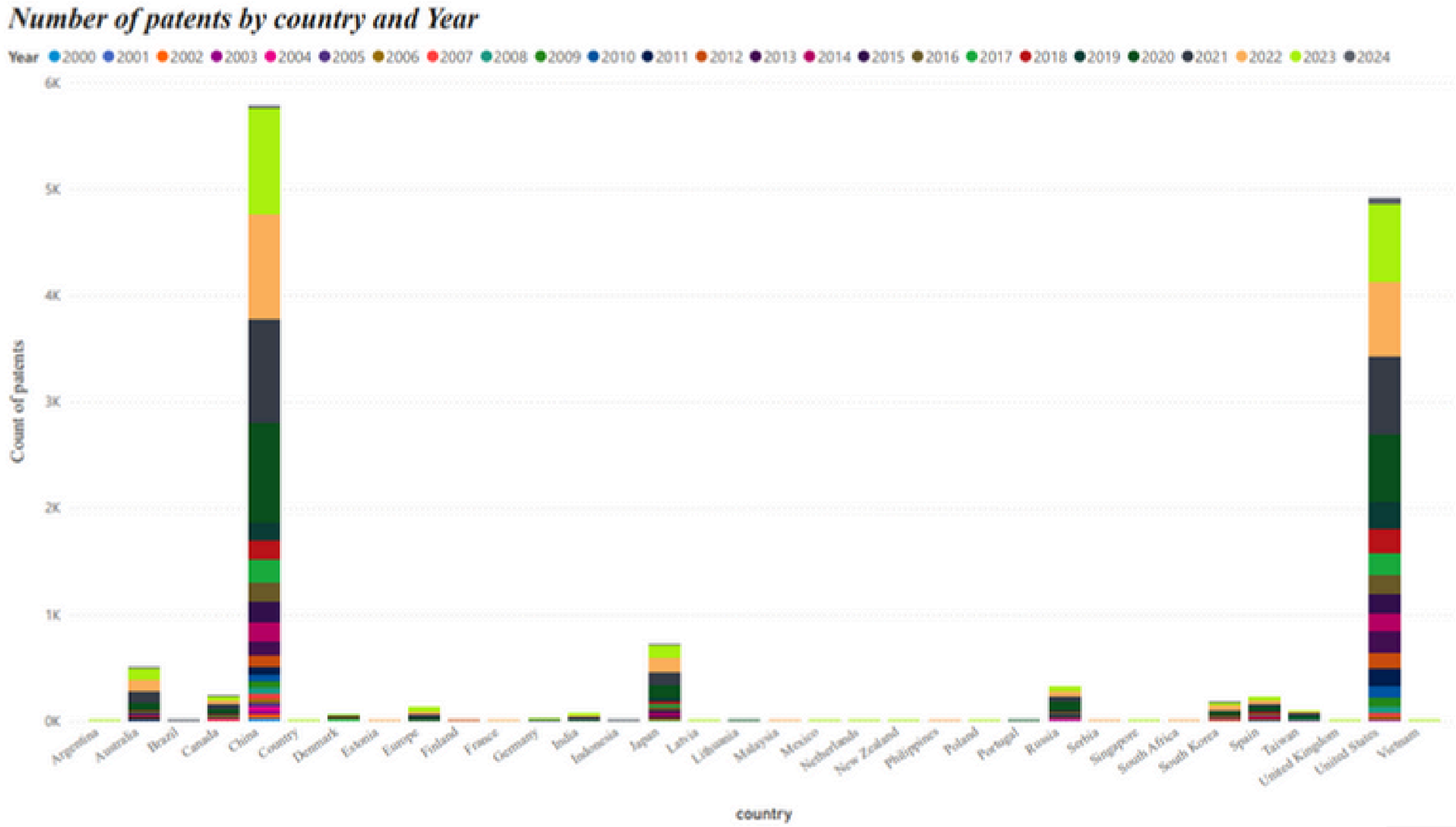

FINAL RESULT:

INTERFACE DEMONSTRATION:

CONCLUSION:

In summary, our exploration of virus engineering patents using big data has provided valuable insights into the field's evolution. We've identified leading countries, top innovators, and the most used languages in this science.

This analysis highlights the significant role of big data in understanding and forecasting technological advancements in virus engineering. As we move forward, continued improvements in data analysis will drive further innovations in gene therapy, oncolytic virotherapy, and vaccine development.

Thank you for joining us on this journey. We hope our findings will inspire future research and innovation in virus engineering.

REFERENCES:

- https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10706429/

Patent Analysis

Patent analysis is a comprehensive process of examining and evaluating patents to gain insights into various aspects of innovation, technology trends, competitive landscapes, and intellectual property.

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