



Plants

PRI - Information Processing and Retrieval (2023/2024)

T01G15

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The background is a light mint green with a subtle, painterly texture. It is decorated with various stylized botanical elements: dark green leaves of different shapes (some with long, thin fronds), and thin, golden-yellow outlines of leaves and branches. The overall style is modern and artistic.

INTRODUCTION

Initial Dataset

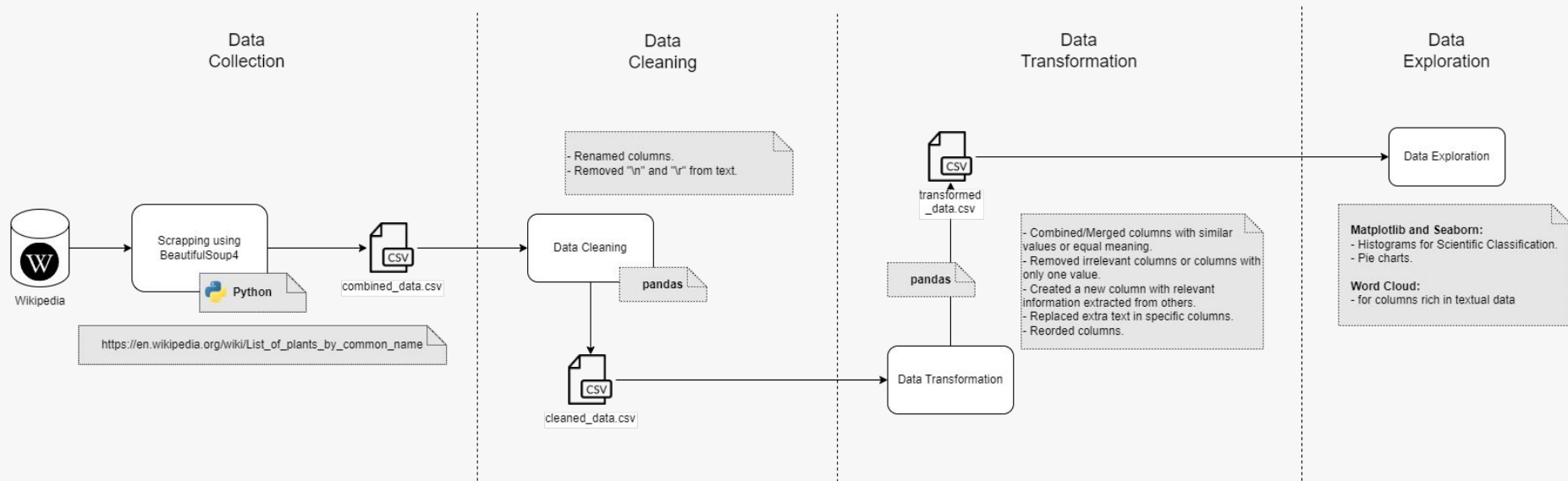


Web
Data
Scrapping

combined_data.csv

**403 rows
178 columns**

Pipeline



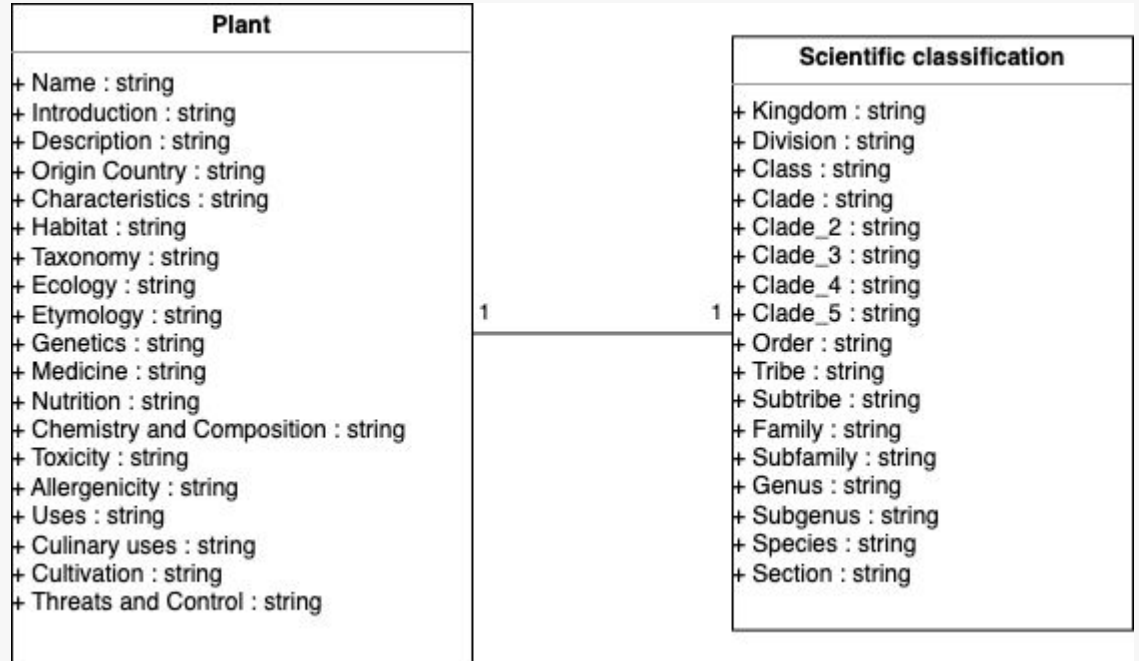
Final Dataset

Name	Betula Nigra
Species	B. Nigra
Kingdom	Plantae
Clade	Tracheophytes
Clade_2	Angiosperms
Clade_3	Eudicots
Clade_4	Rosids
Order	Fagales
Family	Betulaceae
Genus	Betula

Subgenus	Betula subg. Neurobetula
Introduction	Betula nigra, the black birch, river birch or ...
Description	Betula nigra is a deciduous tree growing to 25...
Ecology	In states in which mining is prevalent, the ri...
Taxonomy	Betula nigra is a tree that falls into the fam...
Uses	While its native habitat is wet ground, it wil...

Habitat	The river birch is often found in low-elevation...
Cultivation	While its native habitat is wet ground, it wil...
Threats and Control	It is listed as threatened in New Hampshire.
...	...

Conceptual Diagram



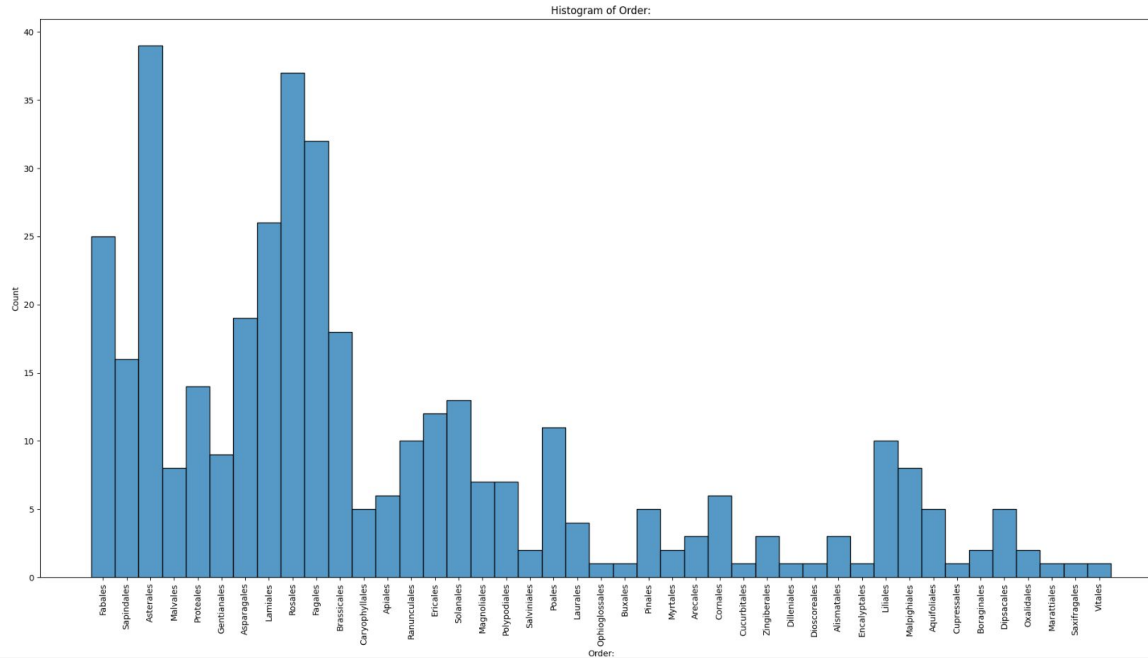
Data Characterization

Count of unique values in each column:

Designation	Count
<i>Kingdom</i>	1 (Plantae)
<i>Clade</i>	1 (Tracheophytes)
<i>Order</i>	43
<i>Family</i>	87
<i>Genus</i>	203
<i>Species</i>	299

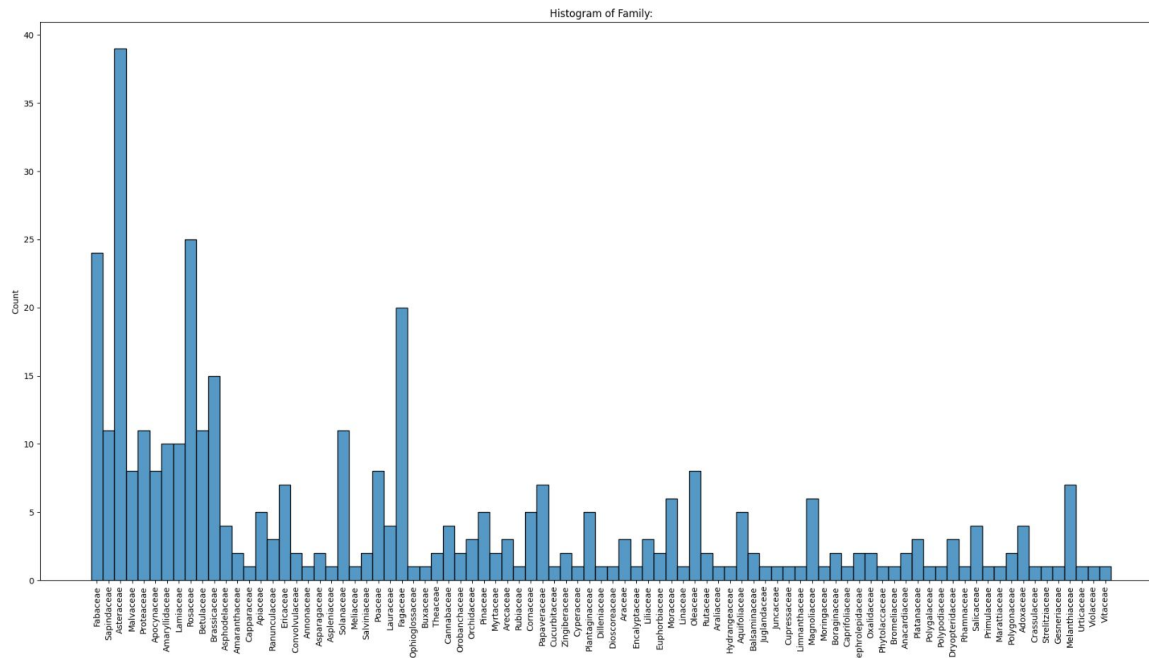
Data Characterization

Histogram for the column 'Order':



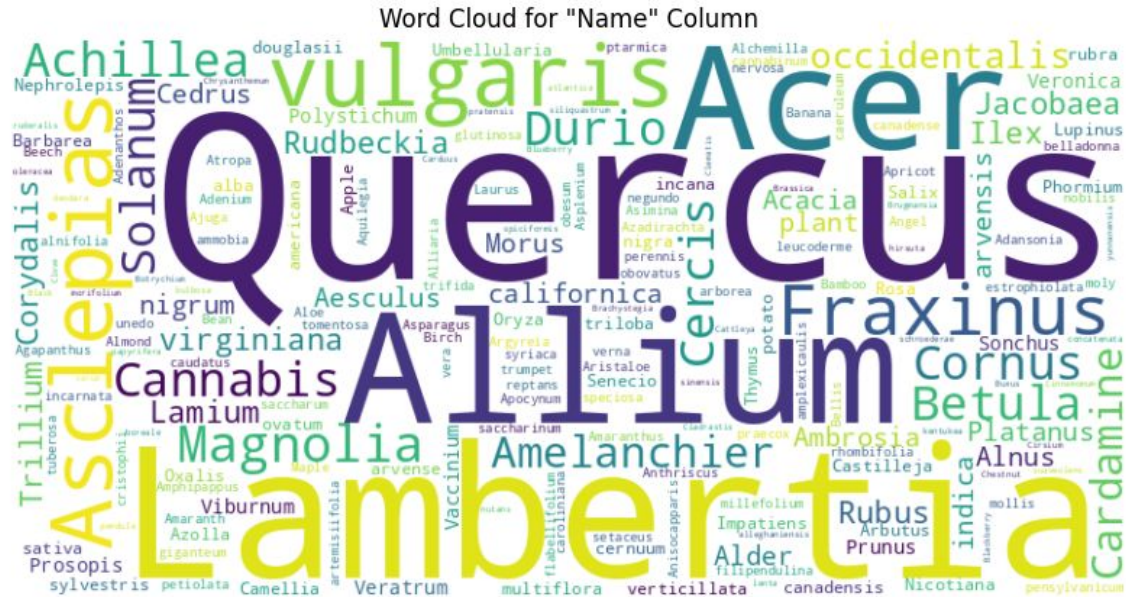
Data Characterization

Histogram for the column 'Family':



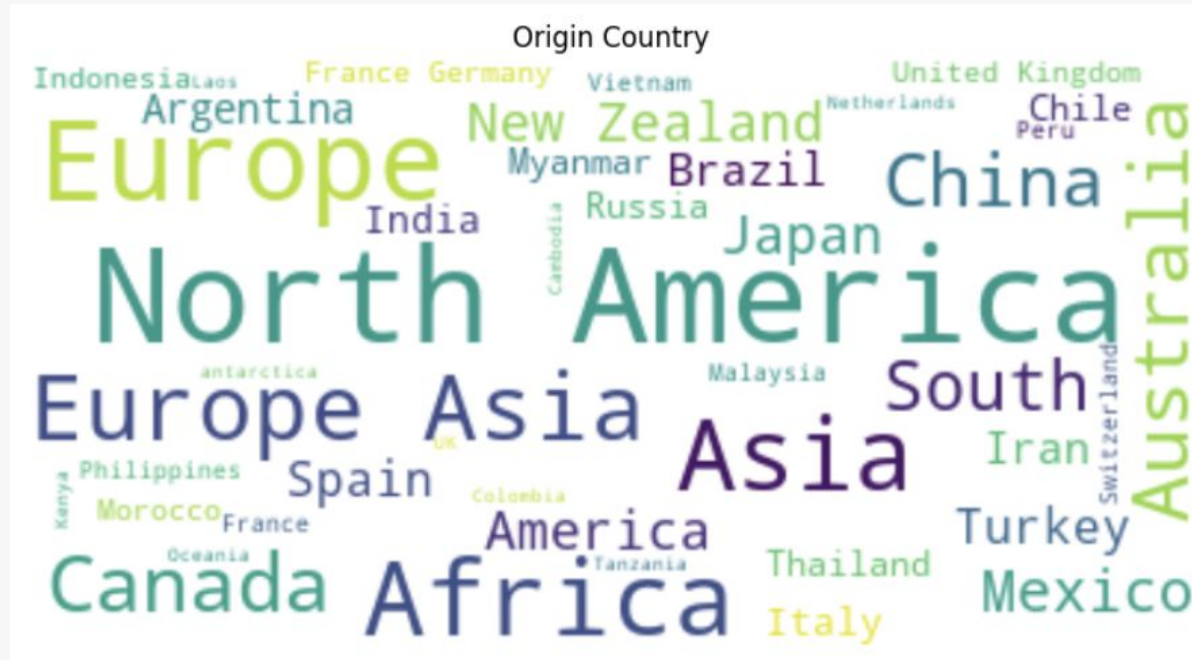
Data Characterization

Word cloud for the column 'Name':



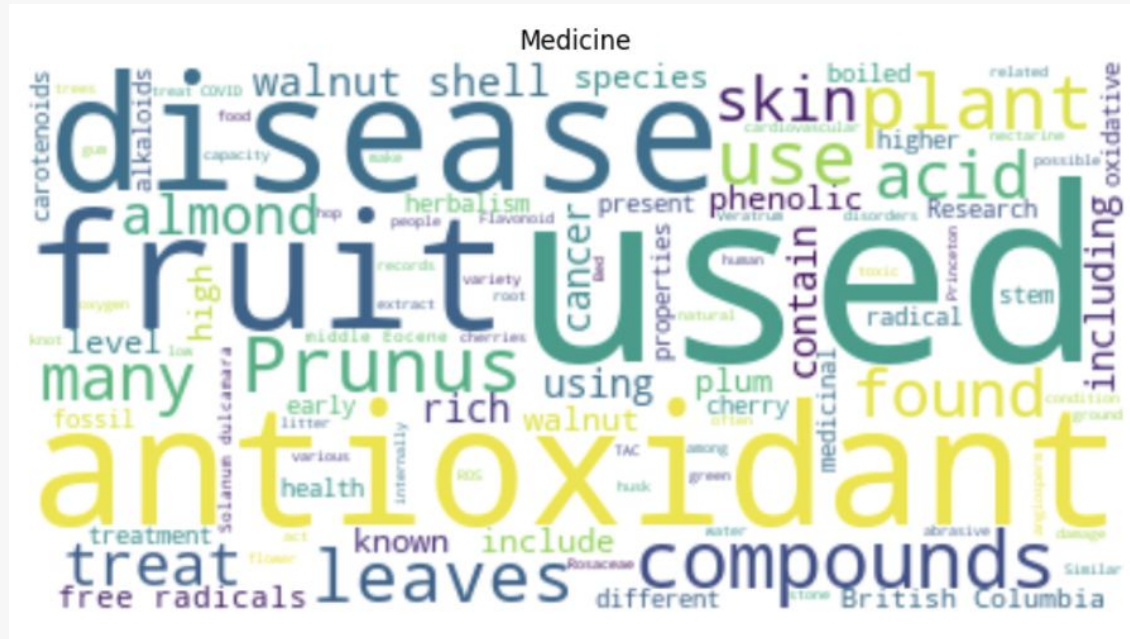
Data Characterization

Word cloud for the column 'Country Origin':



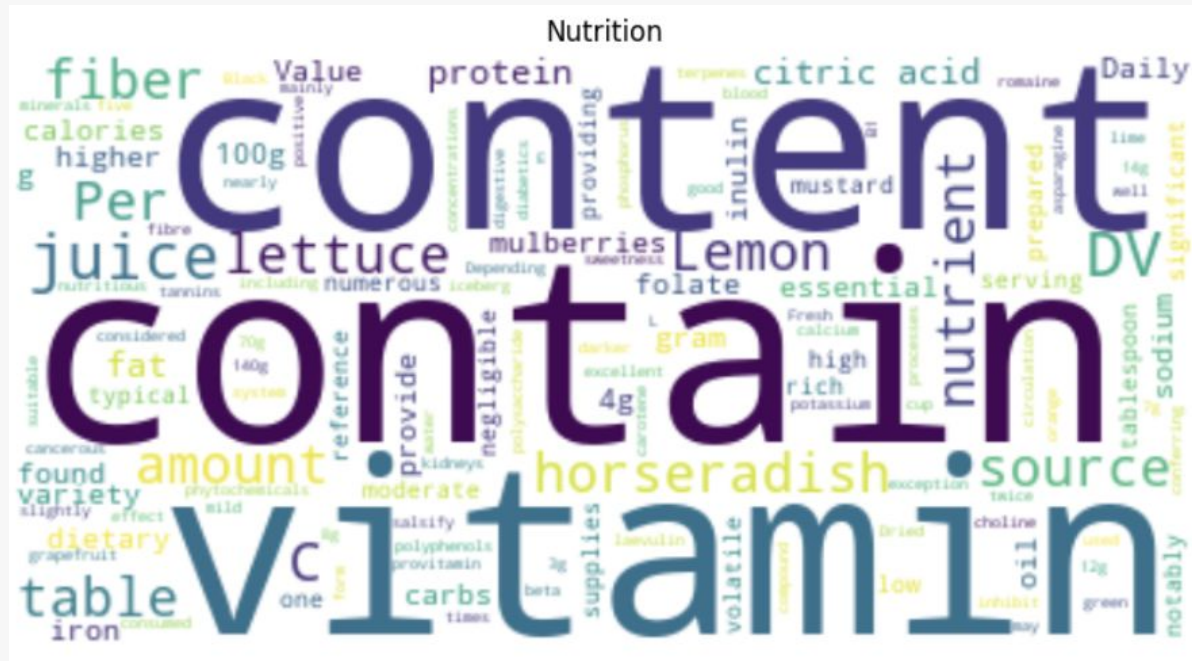
Data Characterization

Word cloud for the column 'Medicine':



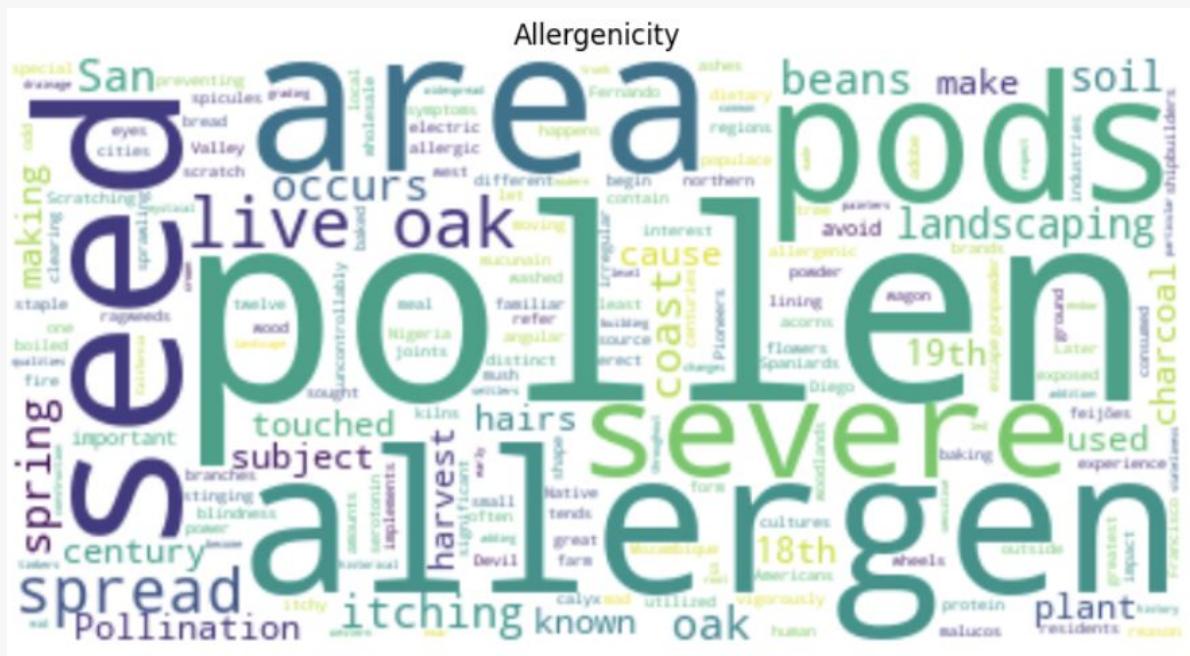
Data Characterization

Word cloud for the column 'Nutrition':



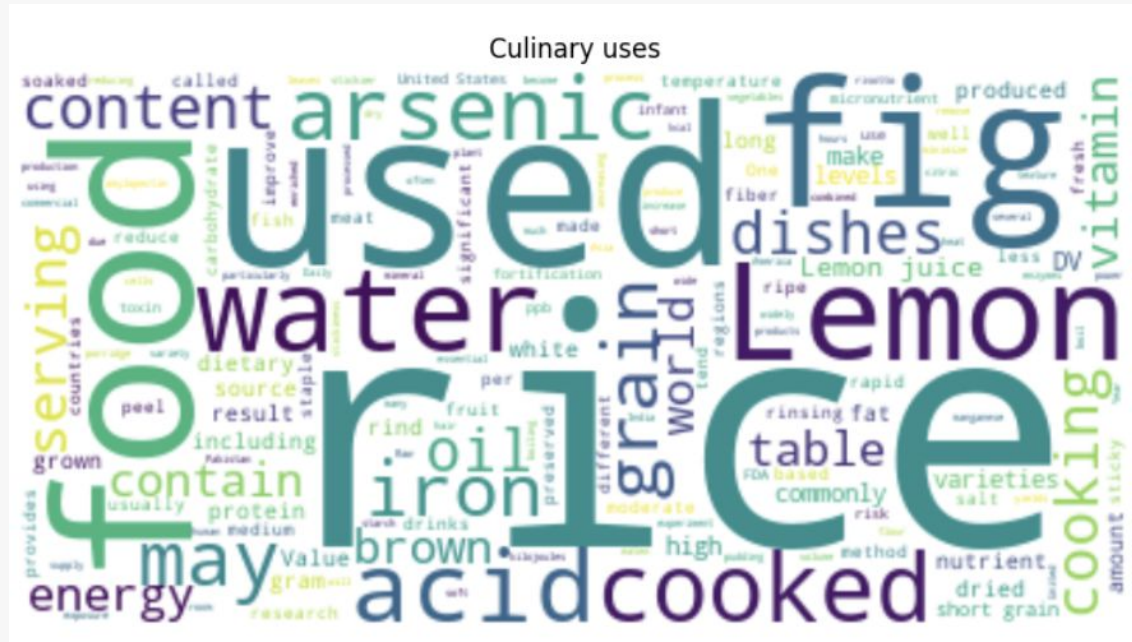
Data Characterization

Word cloud for the column 'Allergenicity':



Data Characterization

Word cloud for the column 'Culinary Uses':



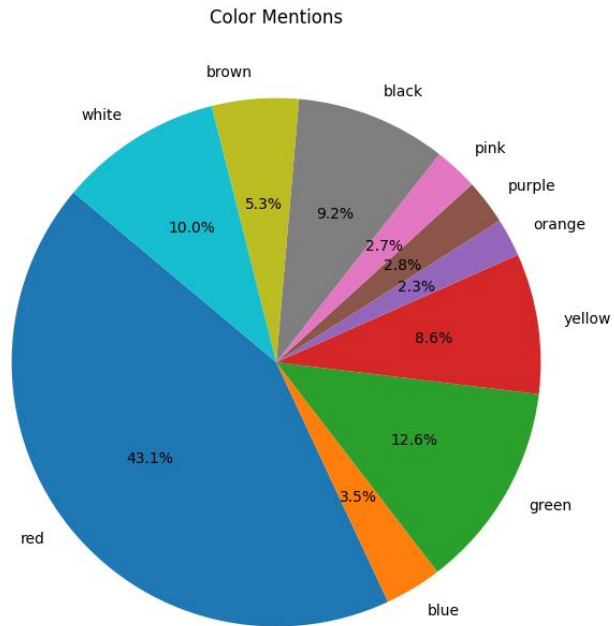
Data Characterization

Number of mentions of colors:

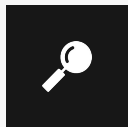
01. Red

02. Green

03. White



Search Scenarios



Interest in plants with medicinal properties.

- “Medicinal properties of Aloe Vera”
- “What plants are used in herbal medicine?”



Interest in learning about a plant's toxicity.

- “Which plants are toxic?”
- “Toxicity in Poison Ivy.”



Interest in finding out where a plant is from.

- “Where do Tulips originate from?”
- “Plants native to Japan.”



Interest in learning which plants are edible.

- “Edible flowers.”
- “Herbs for cooking.”

Future Work

Milestone #2



Review Milestone #1



**Analysis of the
document**



**Information
Retrieval**



Evaluate results

Thank You !

T01G15

Bárbara Rúben Sofia Tiago