# SEMANTIC DOCUMENT CLASSIFICATION

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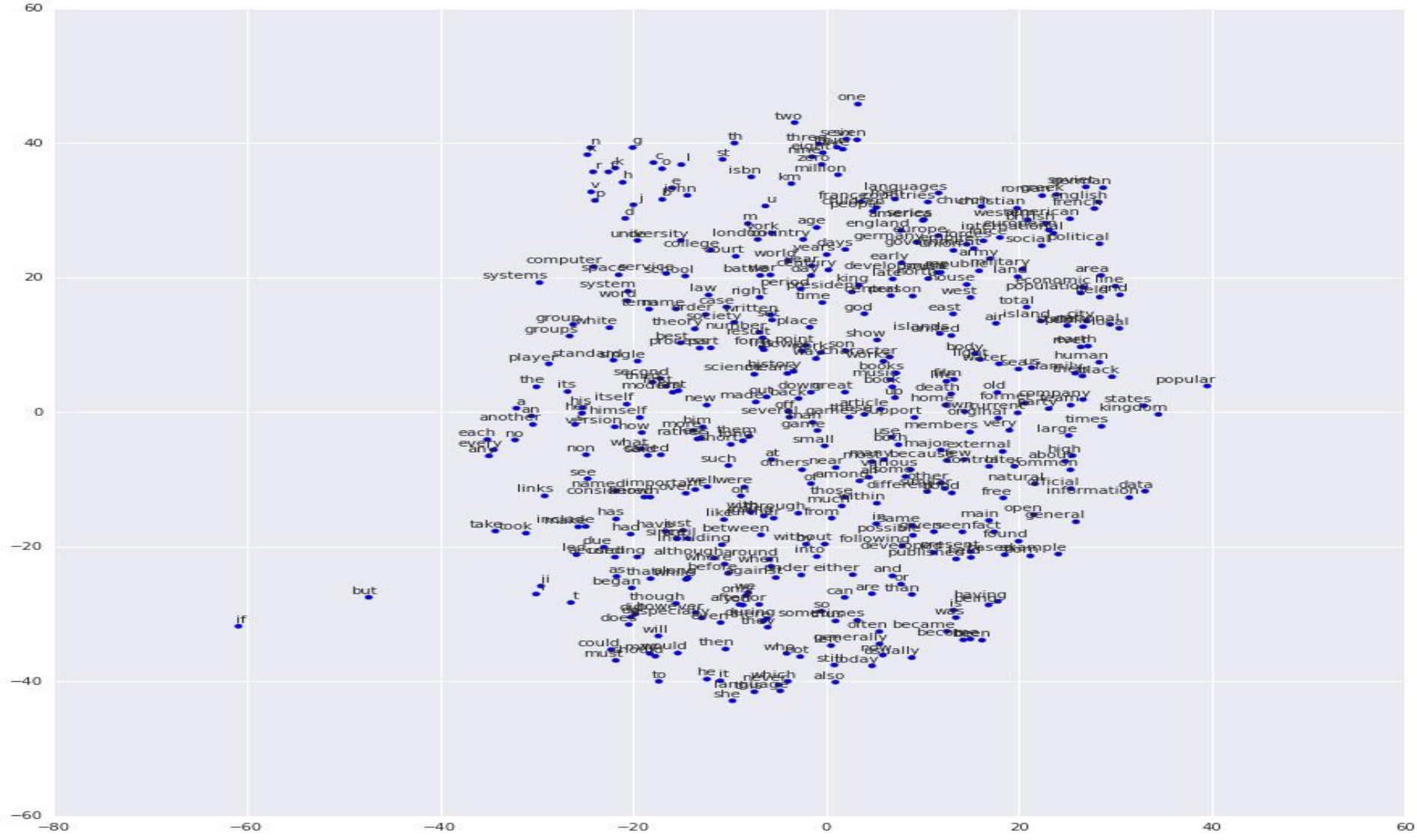
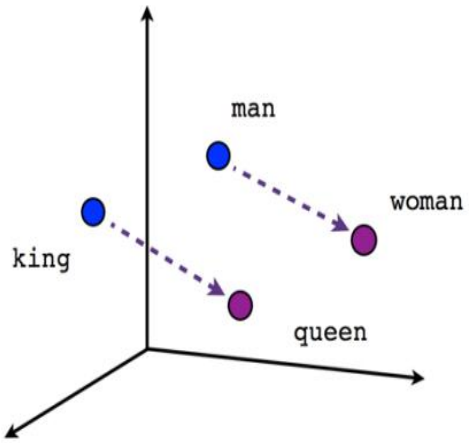
# Motivation

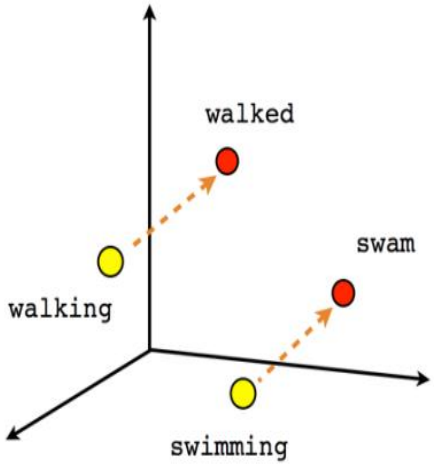
- Design and develop efficient web application.
- Big data learning
- Data reasoning
- Internet of Things (IoT).
- Better understanding the most recent technologies and tools.
- Choose method such as Word embedding,Semantic.

# Word Embedding

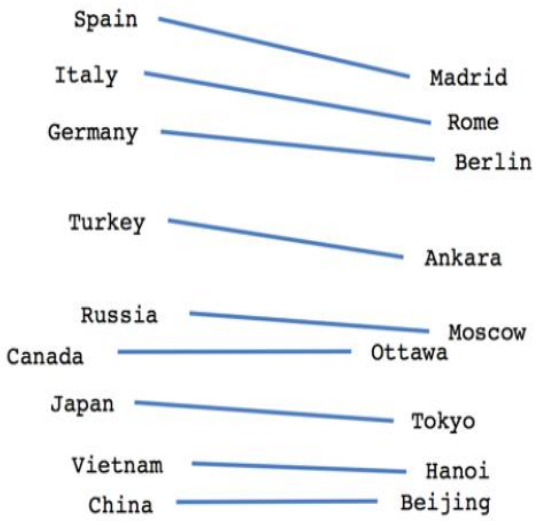





Male-Female




Verb tense

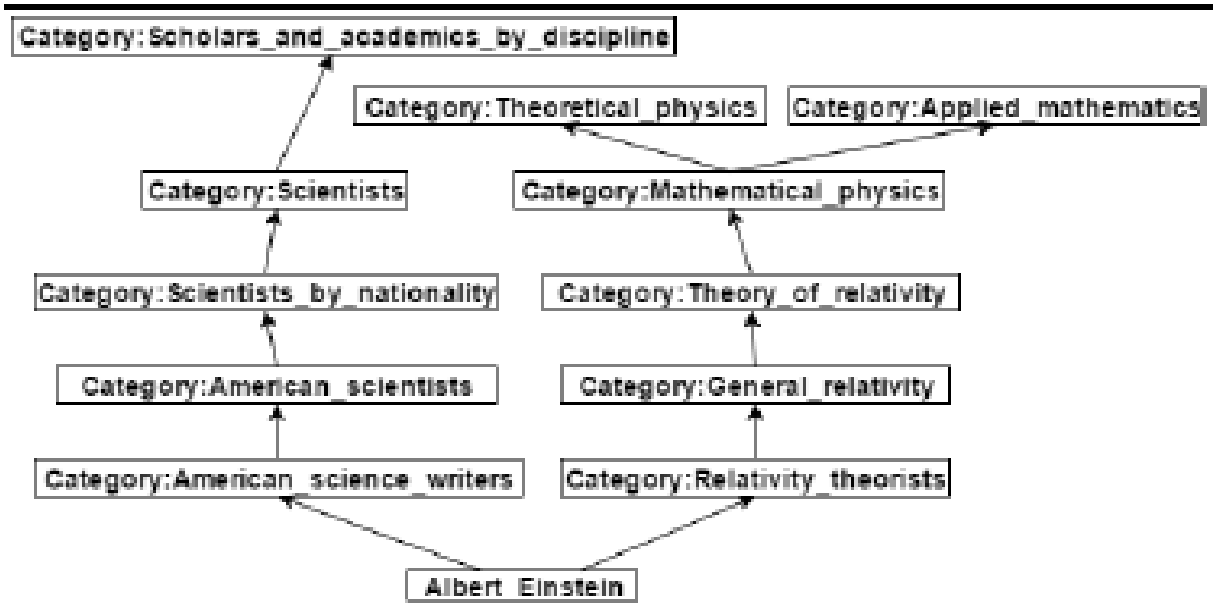



Country-Capital

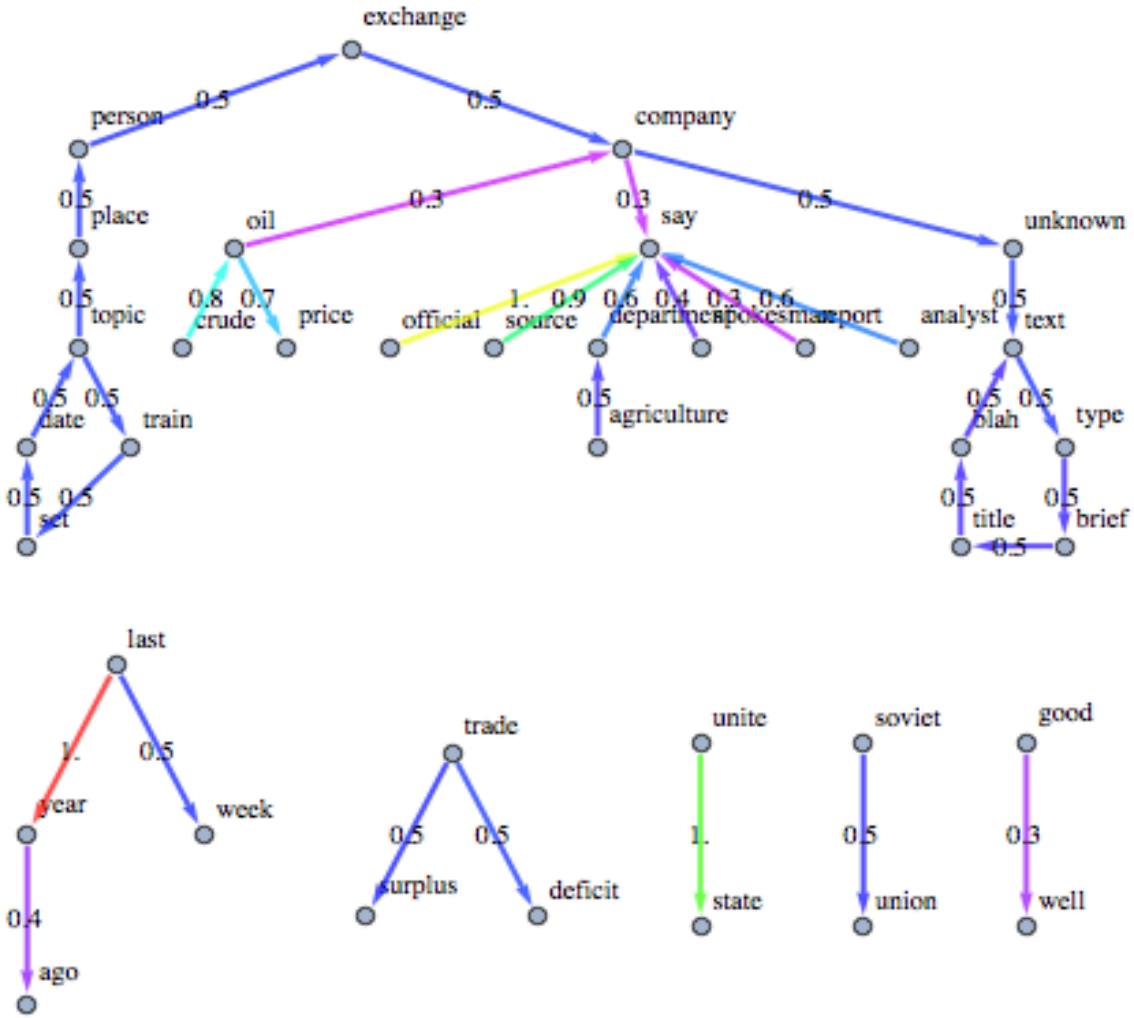
- induced vector space
- semantic relationships.
- male-female,
- verb tense
- even country-capital relationships between words.

# Semantic

- Classify using semantic approach
- Ability to extract concepts from within content and generate the metadata
- Relations between the words are grouped.



- Categorize the words.



# Definition of Problem

- There are wide variety of documents on the web.
- There is a difficulty in intelligently understanding and semantically classifying documents.
- Semantic relationships between words are considered.
- The higher the number of words and phrases with a similar meaning, the cluster grows.

# Analysis

- WordNet relationships.
- Named-entity recognition (NER)-based entity matching techniques.
- Word-embedding.

# Solution

Which technologies will we use in this project?

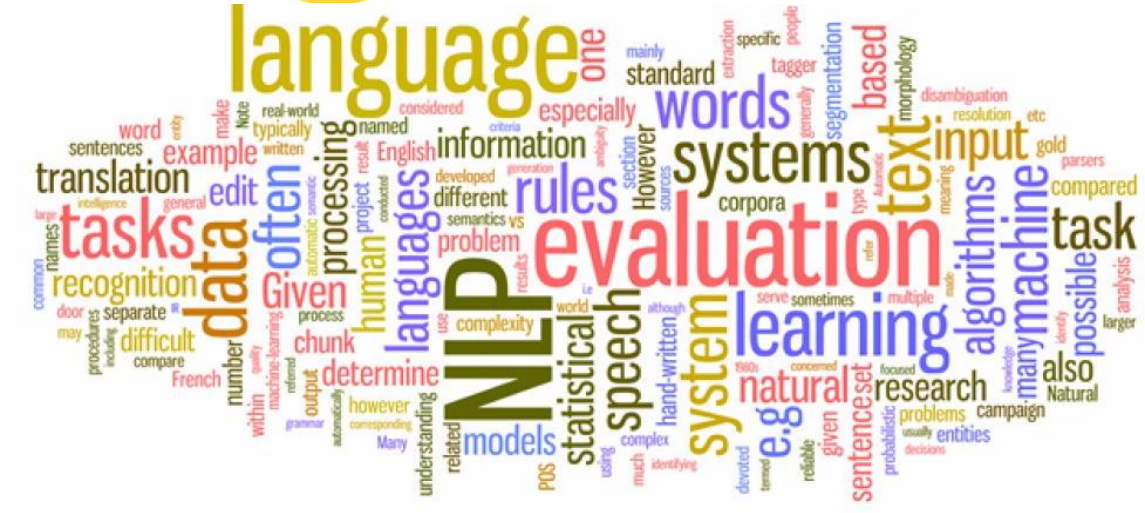
- We use vektor space model and k-means clustering

DBpedia

python

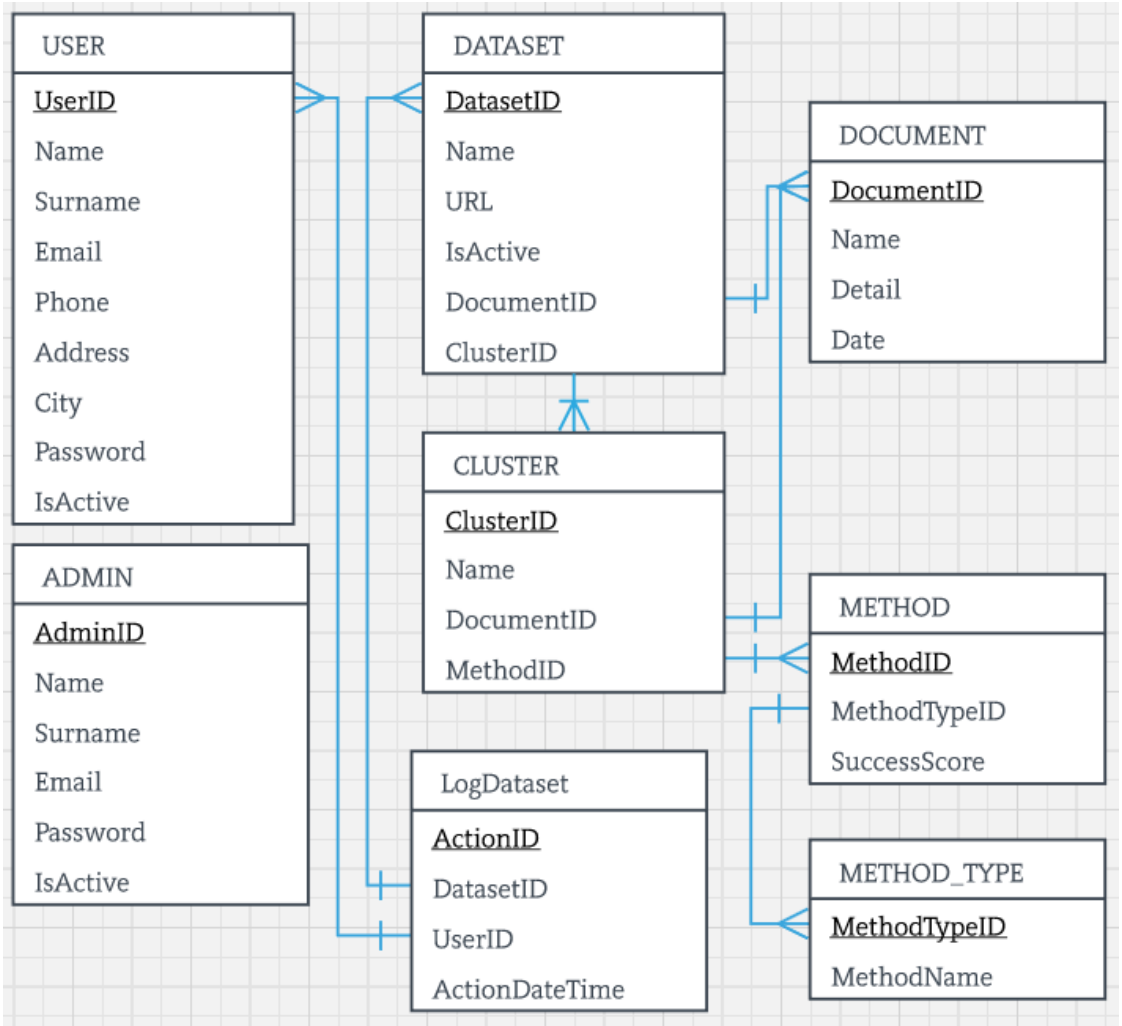
Microsoft SQL Server

Visual C#

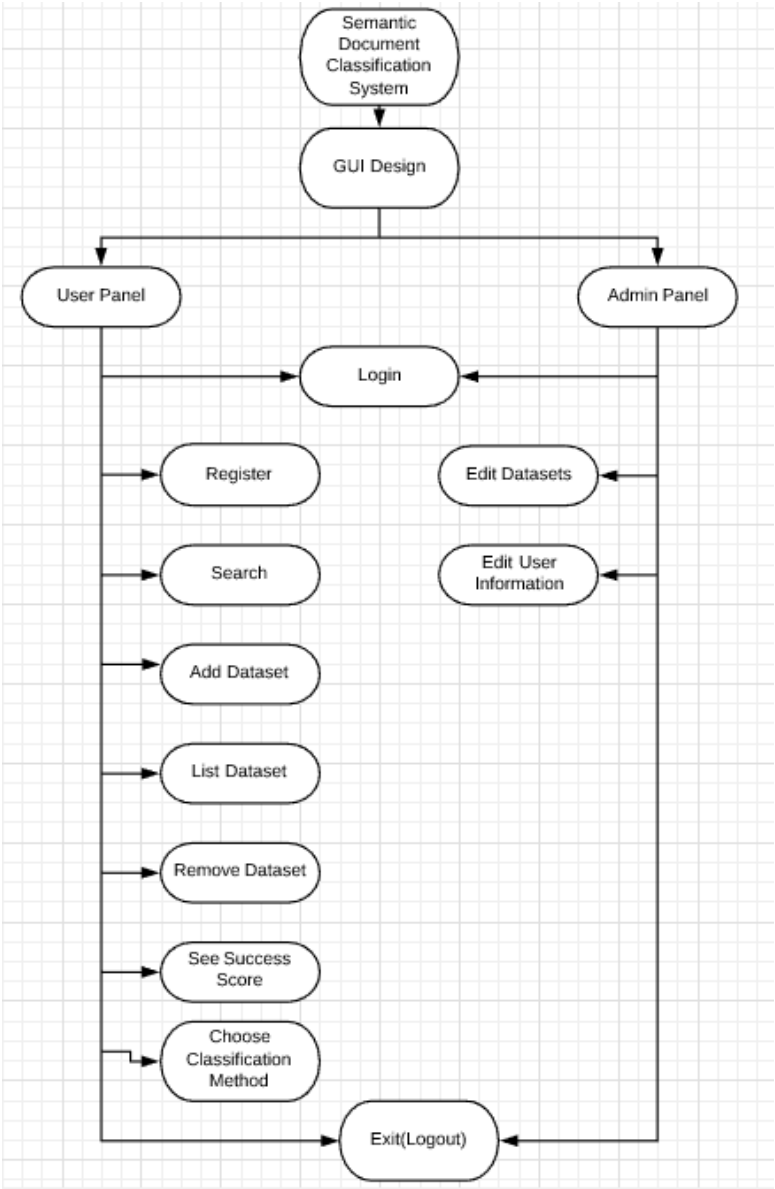


# Database Design

- We will use MSSQL for database in this project with this way, user's information will be stored.

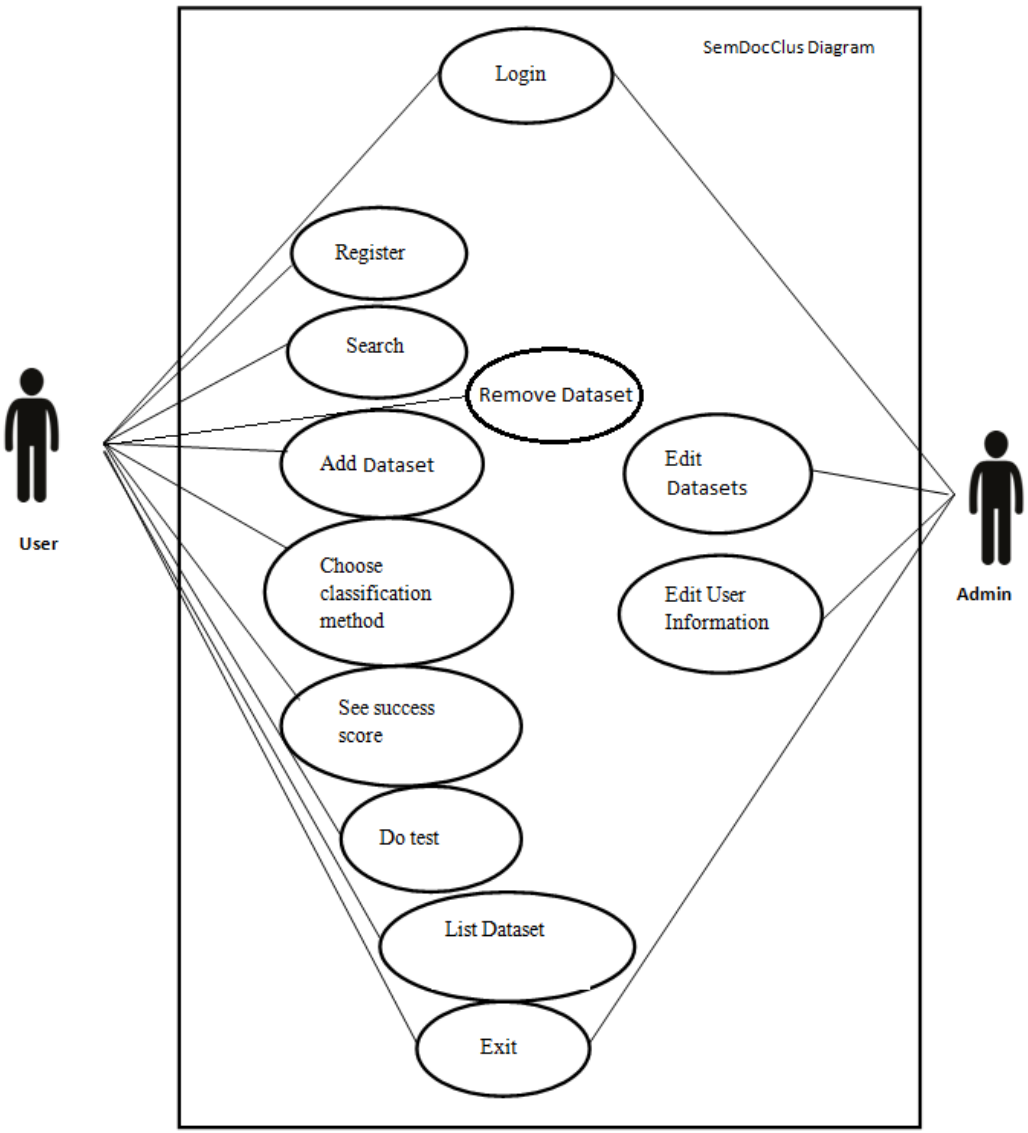


# Block Diagram

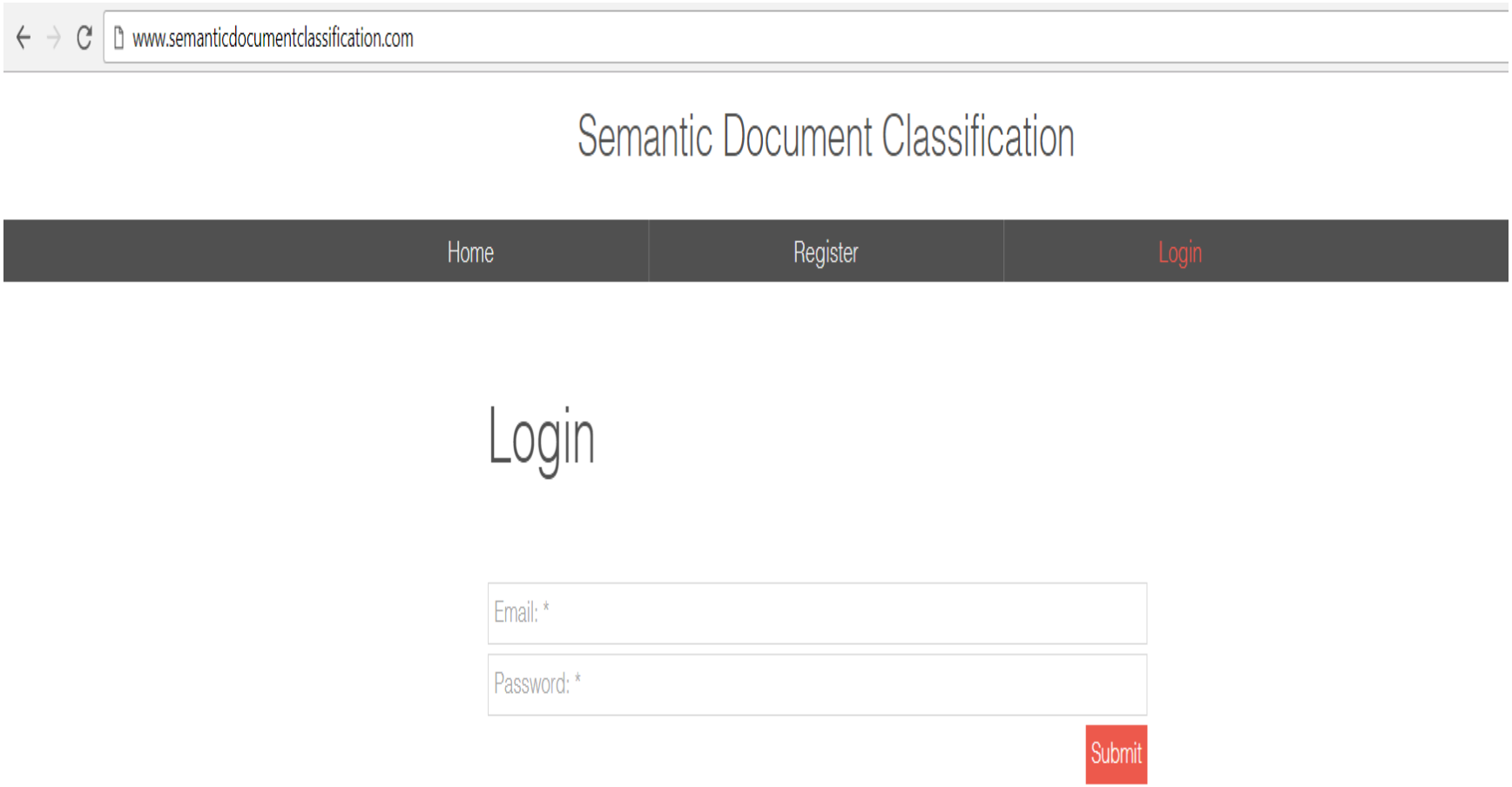


# Use Case Diagram

**USE CASE DIAGRAM:**



# Login Page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Semantic Document Classification
Home
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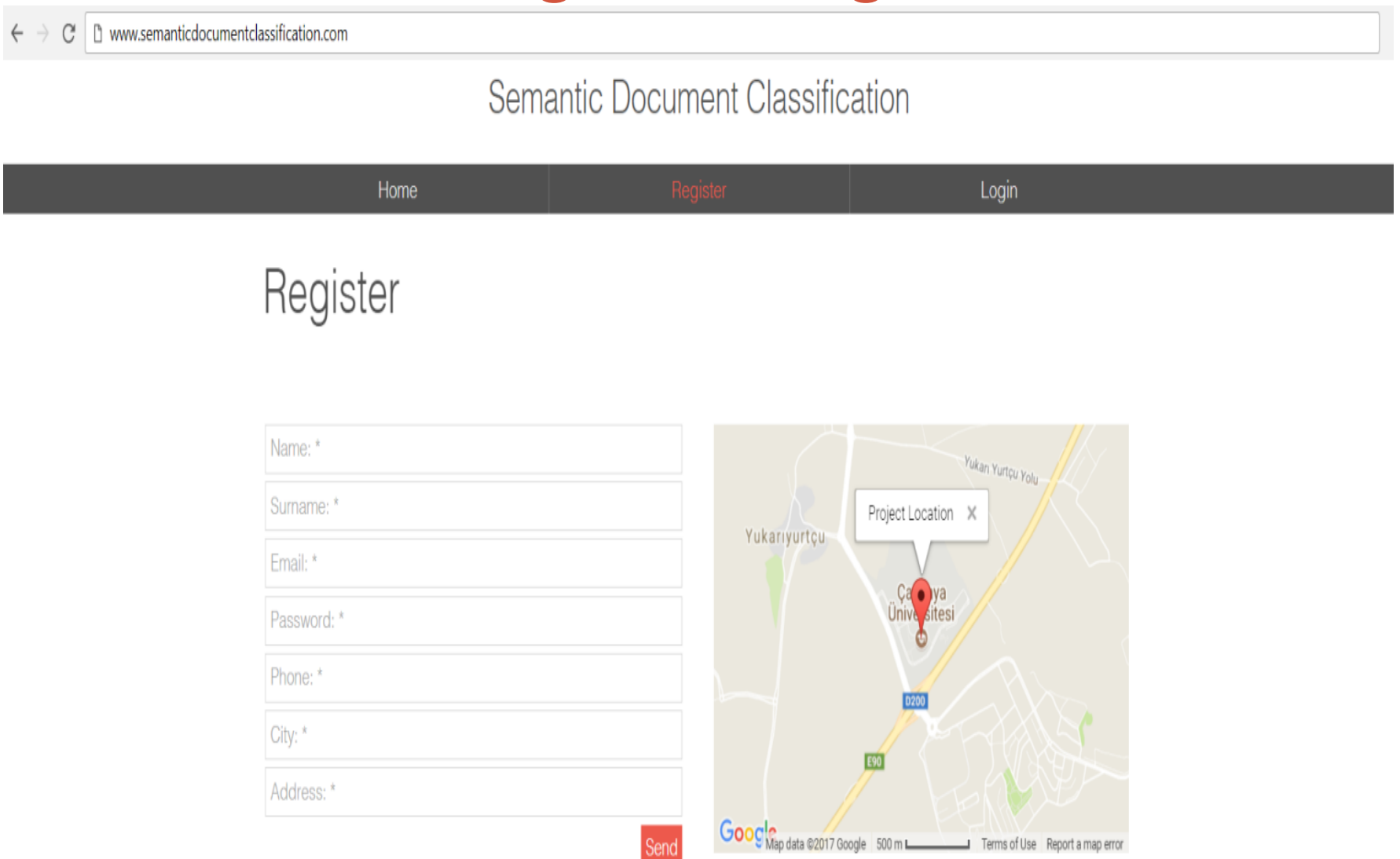
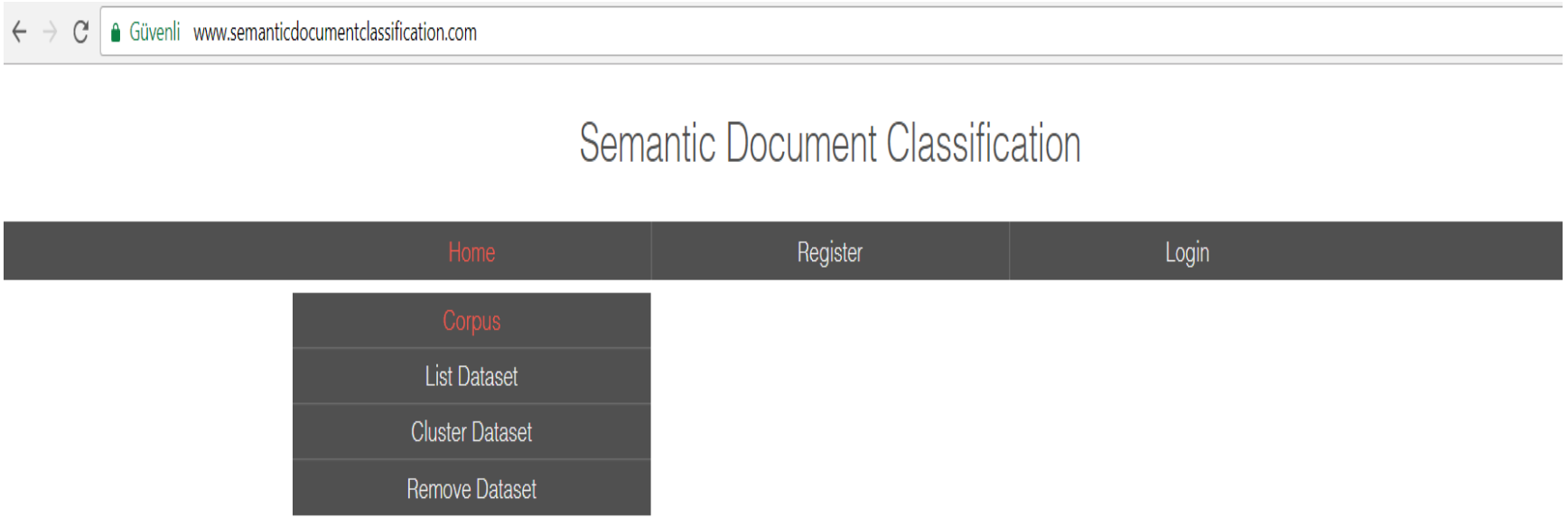
# Register Page



# HomePage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Home
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Cluster Dataset
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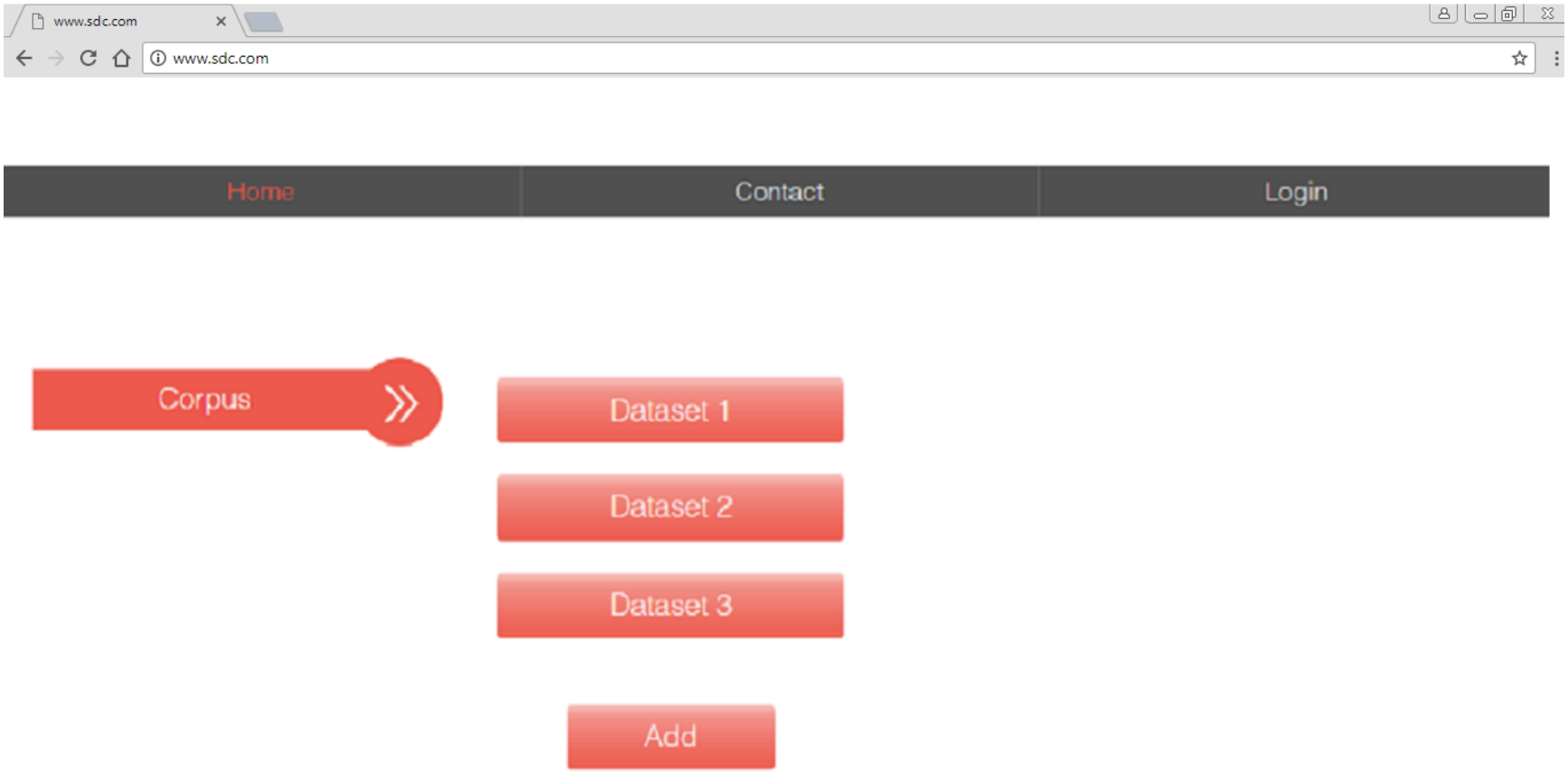
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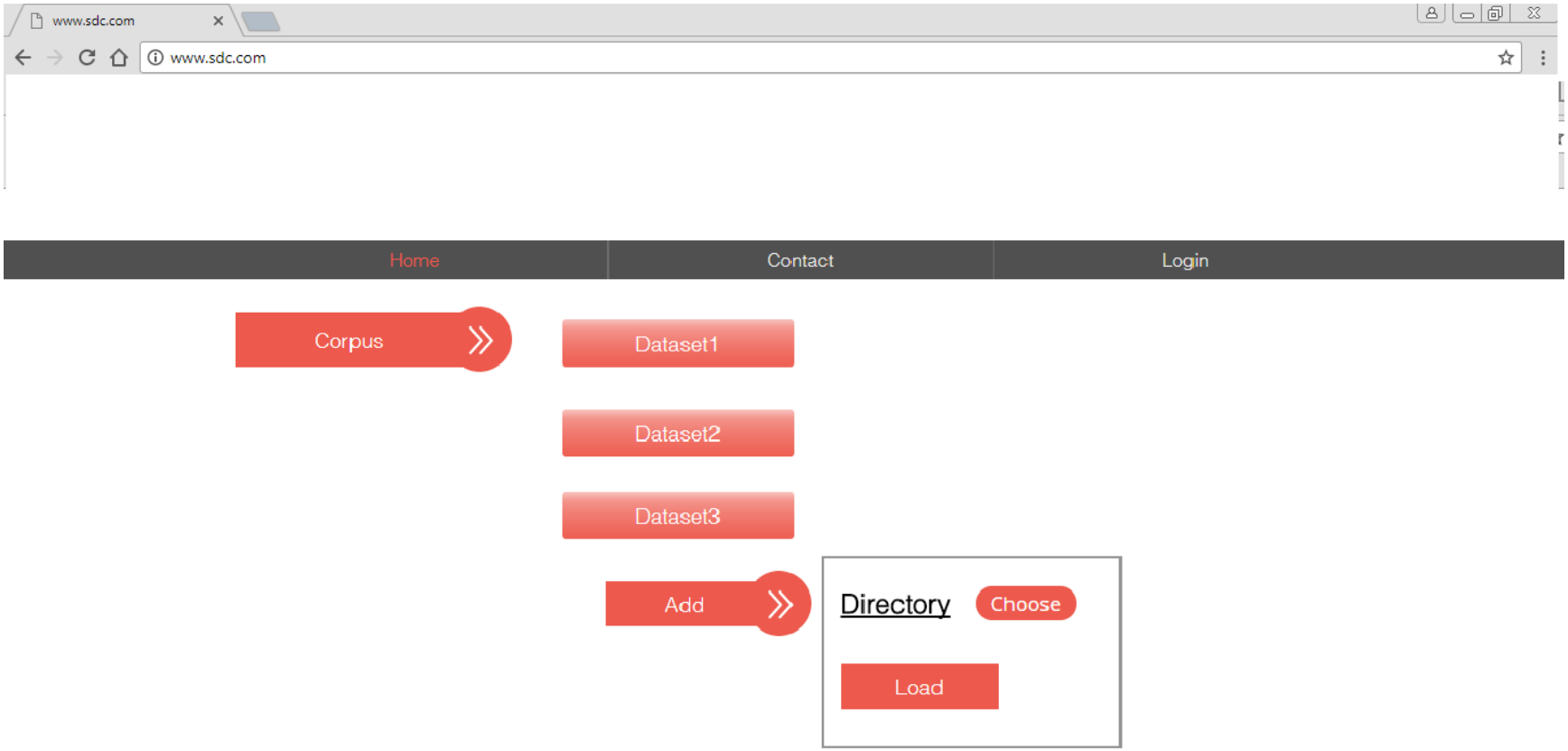
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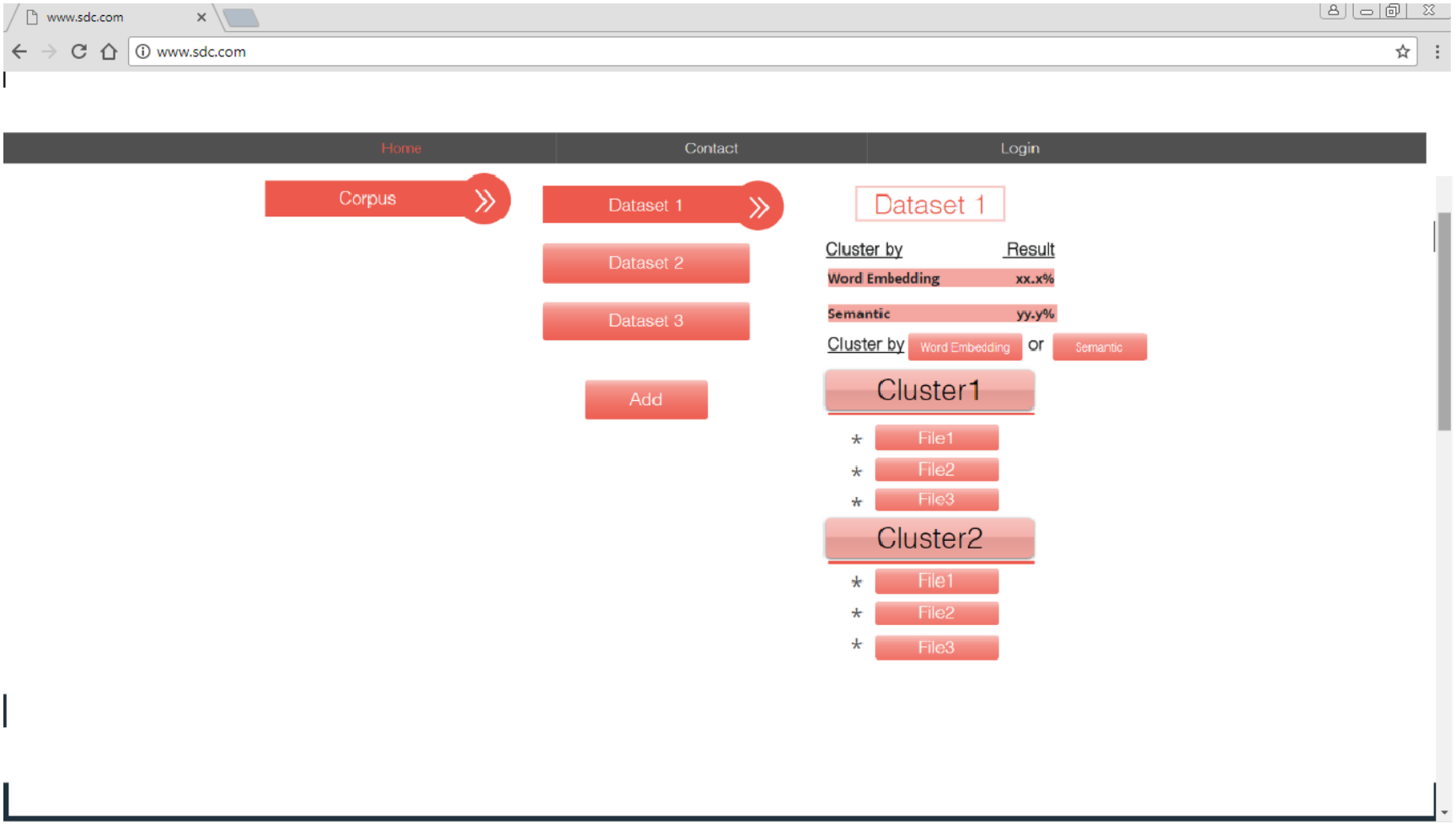
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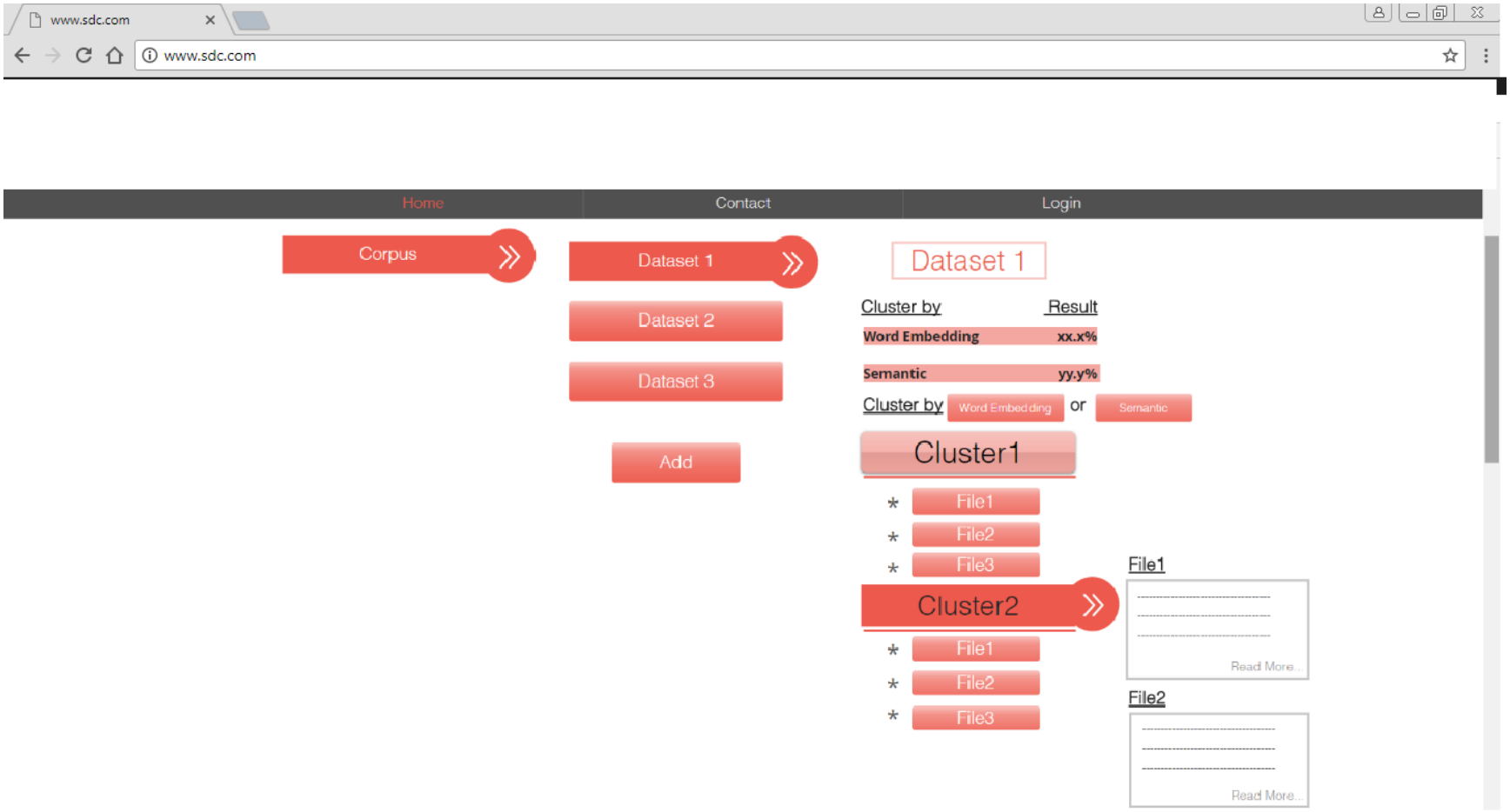
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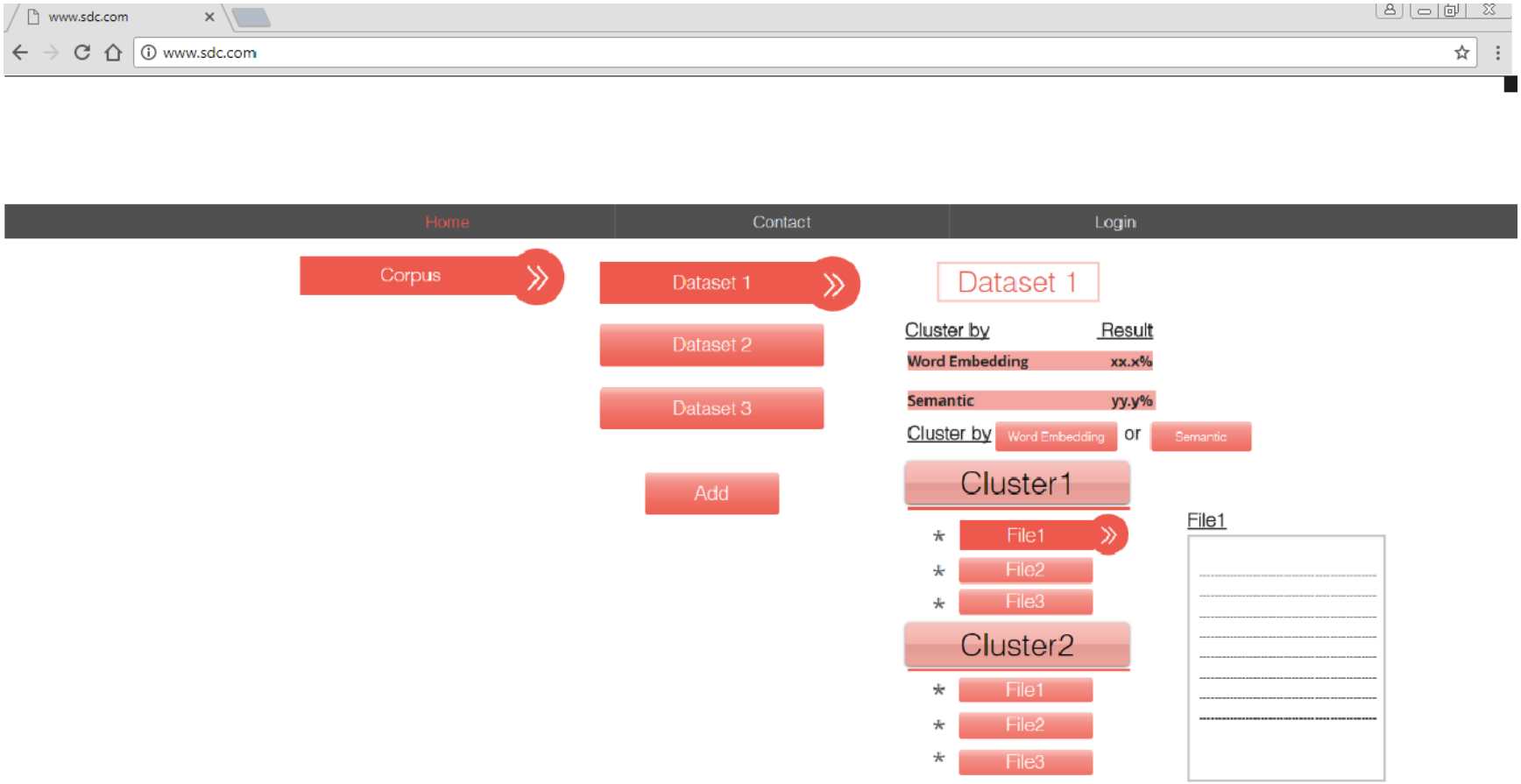
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# Results and Conclusions

- Categorize the document set.
- Test and classify documents.
  - *Advantages*
    - Grouping similar features
    - Quick access to classified documents
    - Millions of dataset classifications
  - *Disadvantages*
    - Lack of good test dataset/benchmark

# References


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THANK YOU
FOR
LISTENING


Any
Question?