K-nearest Neighbor Search By Random Projection Forests

Under the guidance of

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Submitted by:

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01

What is our Project about?

- The Project titled “K-nearest Neighbor Search by Random Projection Forest” with the aim of implementing key concepts in Data Mining was found to meet all objectives. Classification is one of the commonly used tasks in data mining applications.
- The data on the cloud is in encrypted form, existing privacy-preserving classification techniques are not applicable.
- In this project, we focus on solving the classification problem over encrypted data.
- We propose a secure k-NN classifier over encrypted data in the cloud. The proposed protocol protects the confidentiality of data, privacy of user’s input query, and hides the data access patterns.
- Our work is the first to develop a secure k-NN classifier over encrypted data under the semi-honest model.

what works best?

EXISTING SYSTEM

01

The system is implemented fully homomorphic cryptosystems can solve the DMED problem since it allows a third-party to execute arbitrary functions over encrypted data without ever decrypting them

PROPOSED SYSTEM

02

The system focuses on the classification problem since it is one of the most common data mining tasks.

Such techniques are very expensive and their usage in practical applications have yet to be explored

This project concentrates on executing the k-nearest neighbor classification method over encrypted data in the cloud computing environment.

Drawbacks of Existing System

- The existing system is not secured.
- The encrypted data is not secured.
- Speed of this process is slow.
- There is chance of loss of data and information.
- Cost is high.
- Less Reliability.

Advantages of Proposed System

- Protocol protects the confidentiality of data, privacy of user input queries.
- It hides the data access patterns from the end user to get security.
- We develop the secure KNN classifier over the encrypted data.
- Efficiency of protocol using real word data under different parameters settings.

Technology Stack Used

Operating system : Windows 7/8/10

Coding language : Java/J2EE

IDE : Eclipse

Database : MYSQL 8.0.23

Use Case Diagram

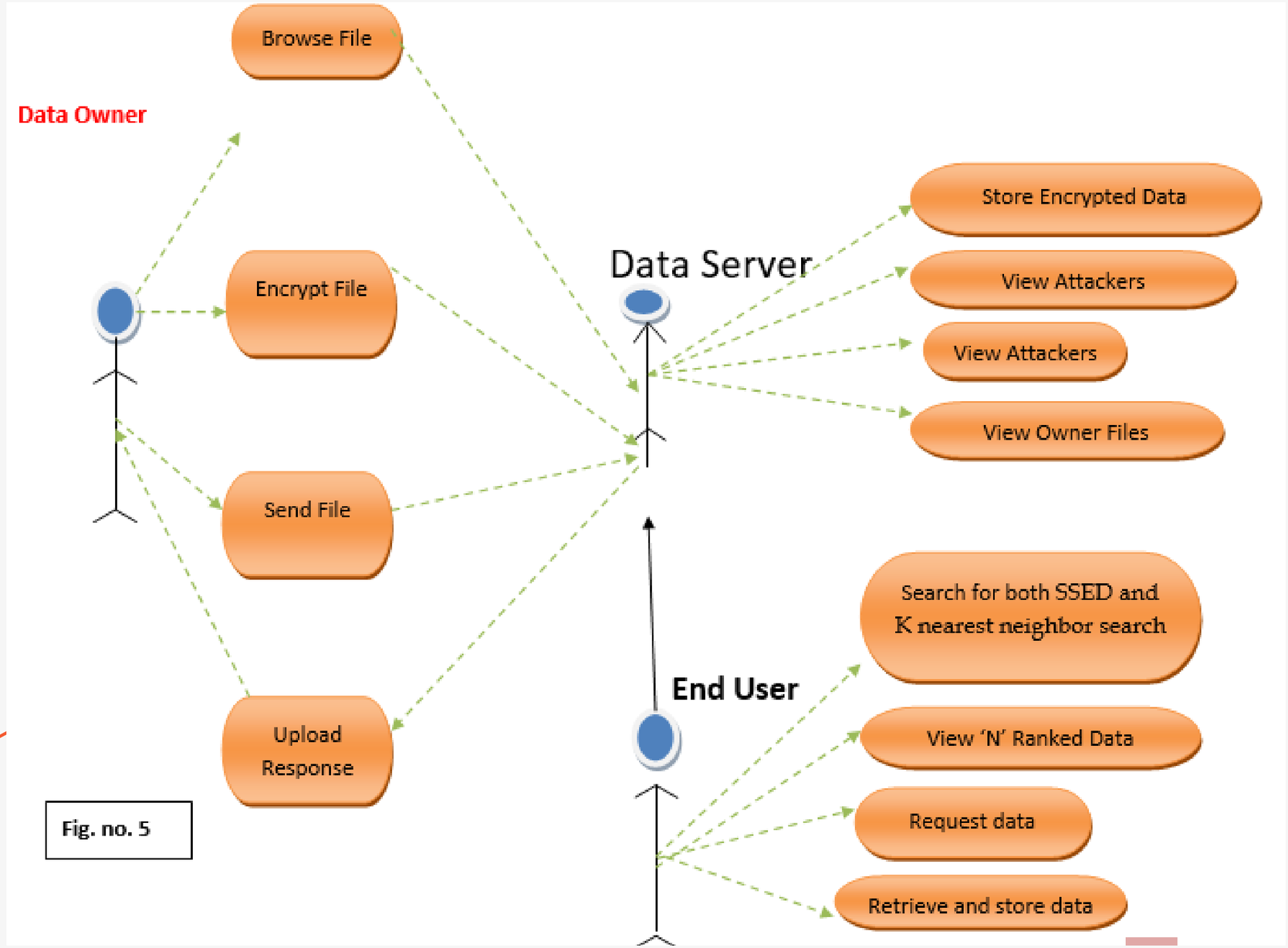
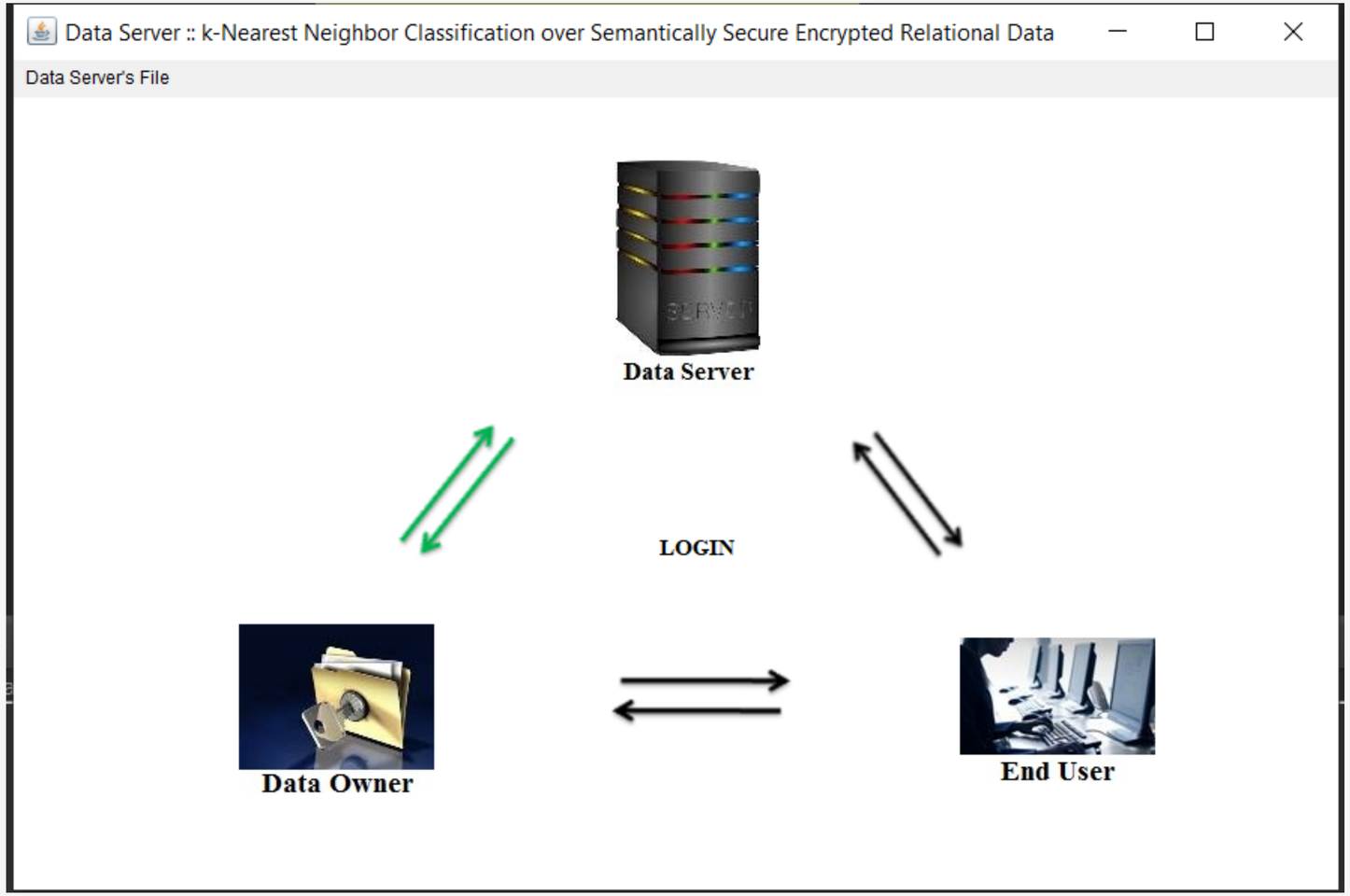
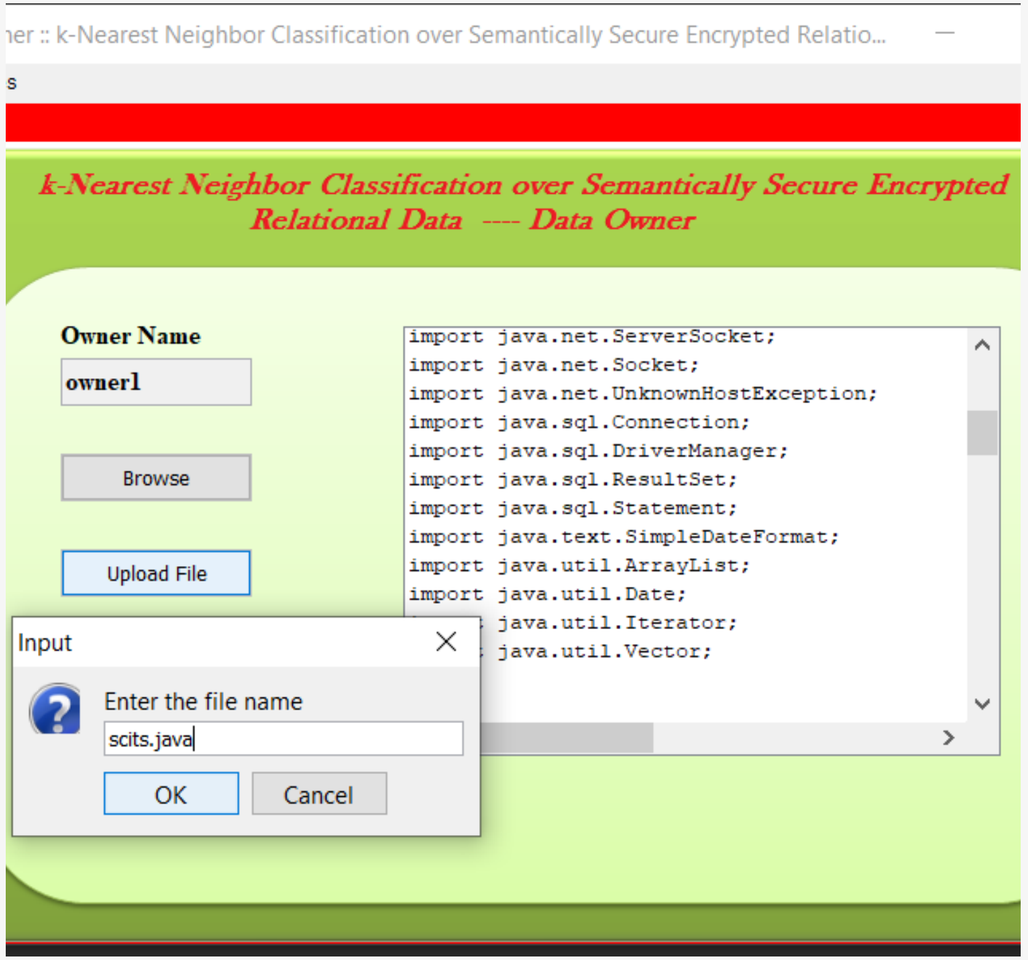


Fig. no. 5

DATA SERVER

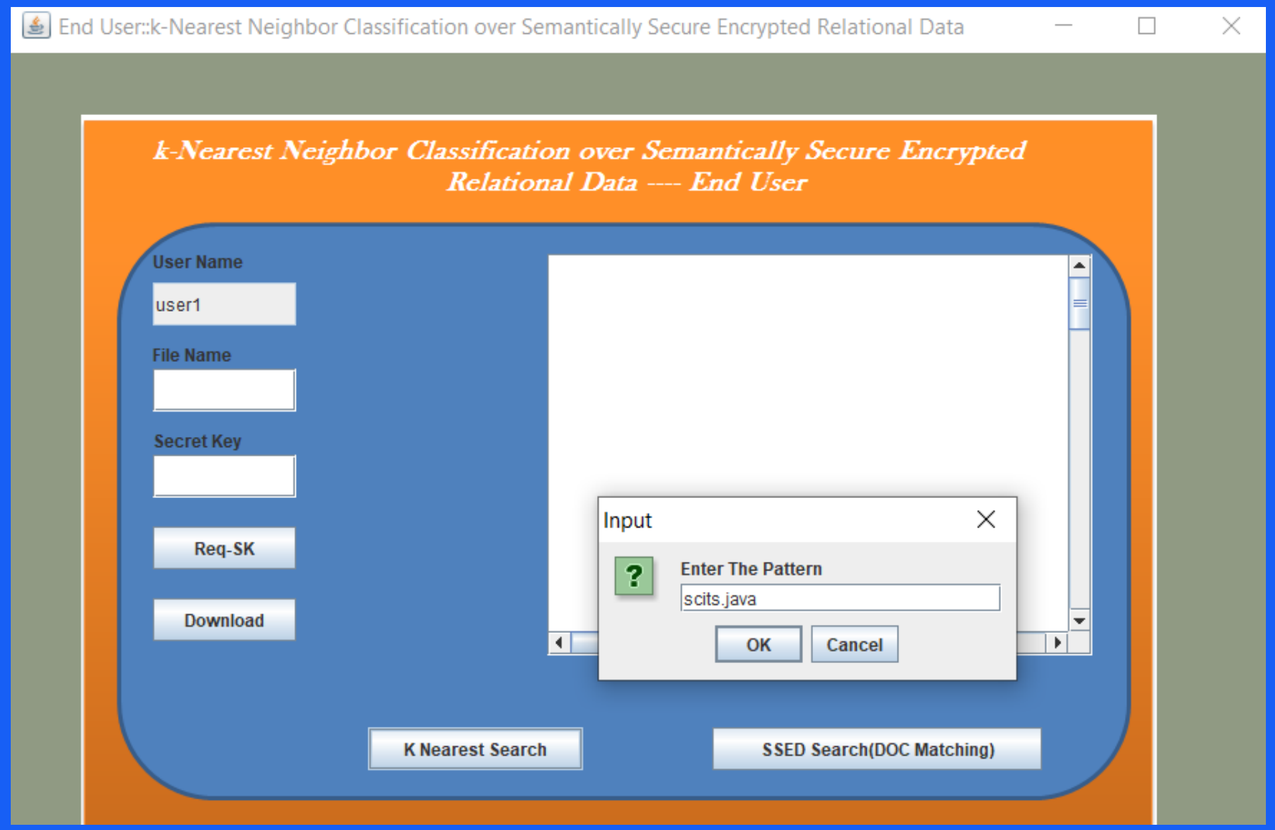


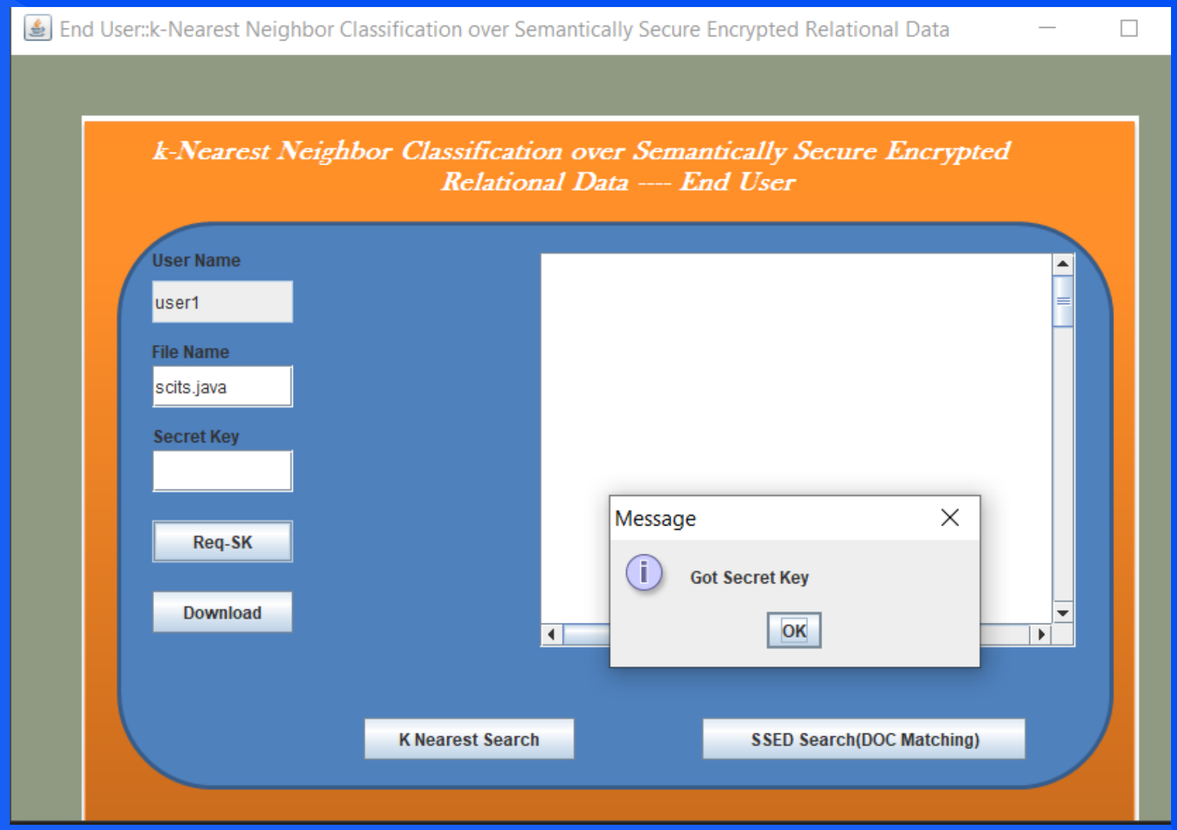
OWNER UPLOAD FILES



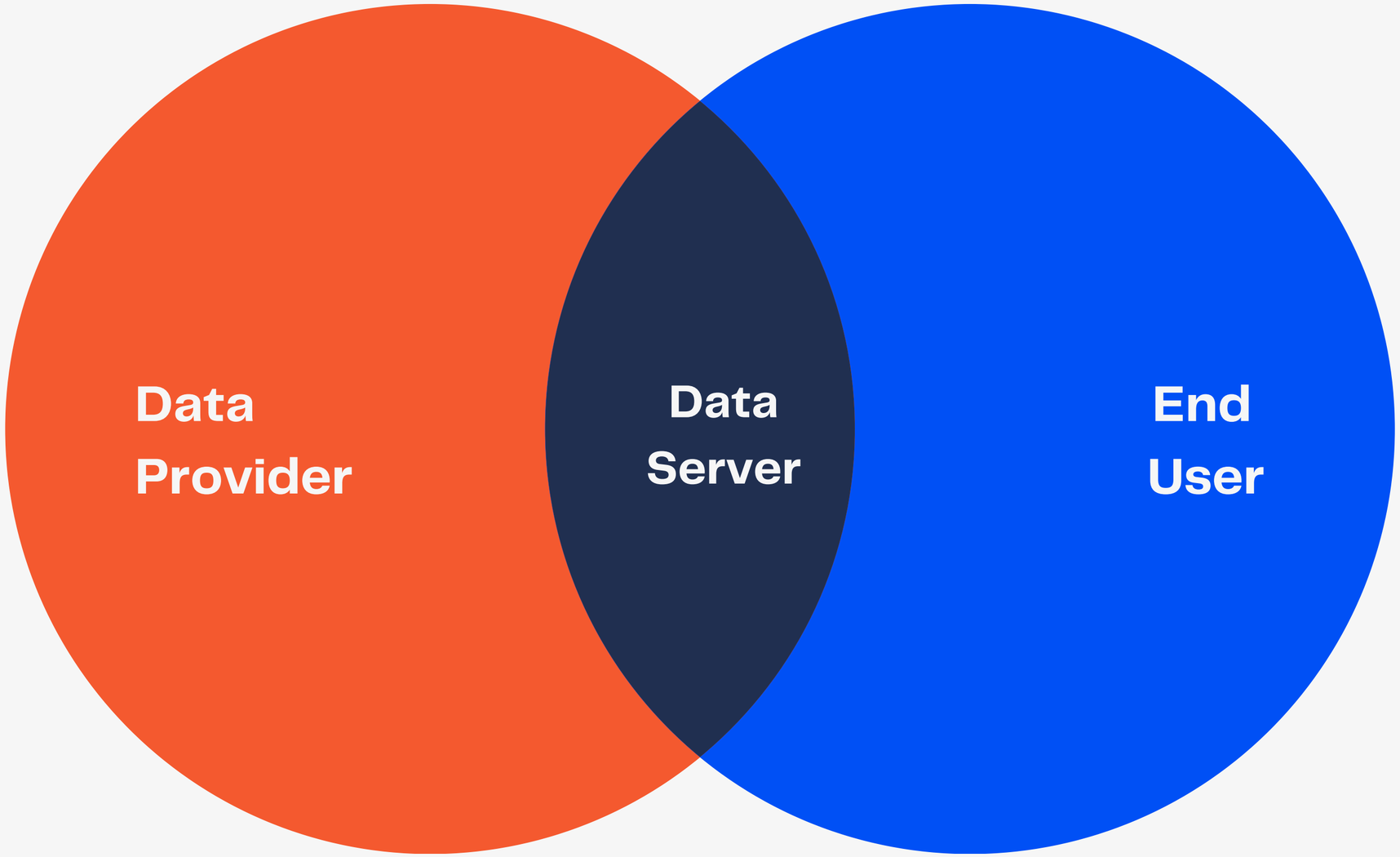
K-nearest search

Request SK





IMPLEMENTATION



Conclusion

- Our protocol protects the confidentiality of the data, user's input query, and hides the data access patterns.

thank you