



Implementation
of Enhanced
Association
Rule Mining
on Horizontal
Distributed
Databases

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Outline

Introduction
Motivation
Problem
Definition
Objective
System
Requirement
Specification
Propose System
Application
UML Diagrams

Implementation of Enhanced Association Rule Mining on Horizontal Distributed Databases

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Motivation
Problem
Definition
Objective
System
Requirement
Specification
Propose System
Application
UML Diagrams

- Introduction
- Motivation
- Problem Defination
- Objective
- System Requirement Specification
- Propose System
- Application
- UML Diagram
- Reference



Introduction

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Problem
Definition
Objective
System
Requirement
Specification
Propose System
Application
UML Diagrams

- Data mining is the most fast growing area today which is used to extract important knowledge from large data collections, but sometime these collections are divided among several parties.
- Association rule mining is one of the data mining technique used in distributed databases.
- Association rule mining finds interesting associations and/or correlation relationships among large sets of data items.



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Introduction

Motivation

Problem

Definition

Objective

System

Requirement Specification

Propose System

Application

UML Diagrams

- Apriori algorithm is used to generate frequent item sets in a large amount of database. The frequent item sets determined by Apriori can be used to determine association rules.
- K & C is one of the existing protocol for mining of association rules in horizontally distributed databases.



Motivation

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Introduction

Motivation

Problem

Definition

Objective

System

Requirement

Specification

Propose System

Application

UML Diagrams

- The existing protocol for secure mining of association rules in horizontally distributed databases leaks the excess information so there is need of a protocol which improves data privacy.



Problem Definition

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Introduction
Motivation
**Problem
Definition**
Objective
System
Requirement
Specification
Propose System
Application
UML Diagrams

- Proposed protocol is based on the FDM, which is an distributed version of the Apriori algorithm used to generates a small number of candidate sets and the number of messages to be passed at mining association rules.
- Extracting data from distributed database system more number of irrelevant data occur. Irrelevant data is avoided by using the Apriori algorithm.



Objective

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- Propose protocol is use for secure mining of association rules in horizontally distributed databases.
- The main element in propose protocol is a secure multiparty algorithms:
 - 1 computes the union of private subsets
 - 2 tests the inclusion of an element

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Introduction
Motivation
Problem
Definition
Objective
System
Requirement
Specification
Propose System
Application
UML Diagrams



System Requirement Specification

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Introduction
Motivation
Problem
Definition
Objective
System
Requirement
Specification
Propose System
Application
UML Diagrams

Minimum Hardware Requirements includes:

- Hard Disk 40 GB.
- RAM 512 MB
- Floppy Drive
- Monitor
- Mouse
- Keyboard



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Introduction

Motivation

Problem

Definition

Objective

System

Requirement

Specification

Propose System

Application

UML Diagrams

Software Requirements includes:

- Operating system: Ubuntu/Windows
- JDK 7
- NetBeans 7.4
- Database: LAMP/WAMP 2.0



Propose System

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Motivation
Problem
Definition
Objective
System
Requirement
Specification
Propose System

Application
UML Diagrams

- Propose protocol computes a parameterized family of functions, which call doorstep functions, in which the two cases communicate to the problems of computing the union and intersection of private subsets.
- In propose system inputs are the partial databases and the required output is the list of association rules.



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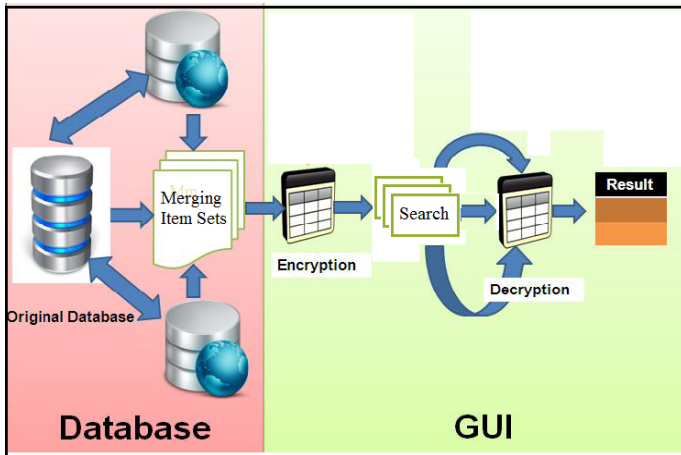


Figure: System architecture



Application

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- Medical System
- Shopping
- Banking Sector

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Motivation

Problem

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Objective

System

Requirement

Specification

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Application

UML Diagrams



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UML Diagrams

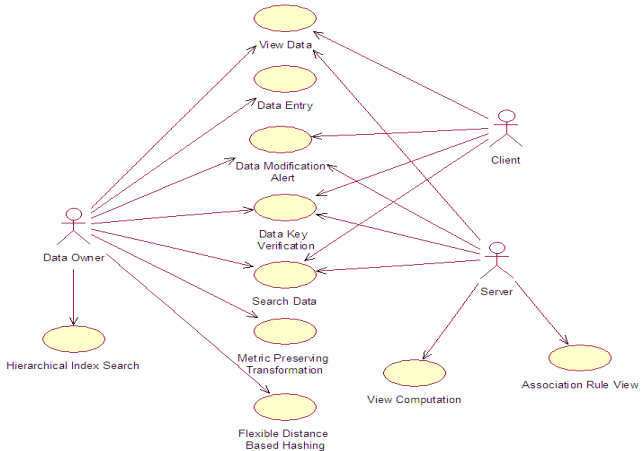


Figure: Use Case Diagram for DNA System



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Objective
System
Requirement
Specification
Propose System
Application
UML Diagrams

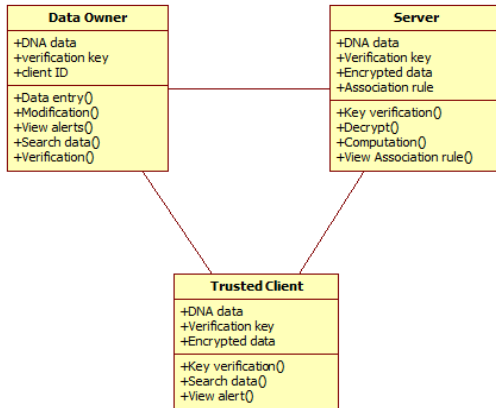


Figure: Class Diagram for DNA System



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Introduction
Motivation
Problem
Definition
Objective
System
Requirement
Specification
Propose System
Application
UML Diagrams



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