ABSTRACT

The knowledge discovery that implicitly represents nontrivial extraction in the available databases refers data mining. It is applicable for different data types as well as the databases in different applications that includes relational / transactional / object oriented / application-oriented databases, as well as data warehouses. An extraction of an implicit and non-trivial information from large temporal data collection refers temporal data mining. The sequences of primary data type are named as a temporal databases. The time varying information is stored in the temporal databases stores. A Standard Query Language (SQL) is a non-procedural or declarative language that develops the application by utilizing the temporal database information.

An efficient Event Matching Agent (EMAGT) algorithm is proposed to create a user friendly image retrieval system that uses the temporal databases. The image retrieval is preceded by the system training process. The SQL query framing is achieved with the exploitation of the image features, the SQL query is framed. When compared to the traditional approaches, the proposed TSQL3MINE is flexible and it provides an optimal results.

The SQL3 extensions are related to the object modelling. In the SQL3, the stored attributes declaration specified by a type called Abstract Data Type (ADT). ADT is applicable for diverse temporal applications. But, they lag in provision of adequate support and query processing in a standard SQL3 caused the problems. To overcome...
these problems, an introduction of novel keywords in this research work to provide temporal extension to SQL3. In the Temporal SQL3 Mining (TSQL3MINE) process, the new keywords utilization defines a different temporal operator versions to SQL. The objects are defined and a dictionary is created to provide new keywords.

An object oriented operations are performed in the proposed method. The new string formulations and keywords computation perform the query operations in proposed TSQL3MINE. Generally, a standard query operator is used to form a Language-Integrated Query (LINQ) pattern. It operates in a sequence manner, where these sequence is consider as an object. A query processing is scalable, incremental and applicable in wide application range of temporal queries. The query processing is simplified by the proposed TSQL3MINE approach. A syntactic transformation – based semantic query generates the logical equivalent queries. The utilization of semantic concepts effectively support relevancy and similarity measures computation in query processing.

The proposed TSQL3MINE assures that the legacy query results remain the same when other queries executed on the temporal database. The TSQL3MINE method allows easy processing and navigation. The experimental results shows that the proposed TSQL3MINE enhances query manipulations in the temporal database. The query manipulations are optimized in the temporal database by an object oriented processing. The temporal database manipulations are effectively depends on the life span time. The SQL3 language is manipulated with the temporal databases. These temporal database
offers visualized form of query and query performance analysis in the temporal databases.

The proposed TSQL3MINE also achieves improved robust against structural noise, robust against temporal noise, time complexity, accuracy, time efficiency, resource efficiency, processing speed, latency, execution time, searching efficiency and scalability when compared with other existing techniques of conventional SQL and Object Role Modeling (ORM) approach.