Design for Integrated E-commerce And Supplier System as an Example for Assimilation of Distributed Heterogeneous Databases

[1]Vinit Nimkar, [2]Prof. Sushopti Gawade, [3]Kazi Fakir Mohammed

[1,3]Student, [2]Professor
Information Technology Department
Pillai's Institute of Information Technology, Panvel, Mumbai,India

Abstract—the expeditious expansion of internet systems, ease of availability and so on abatement in operating expense and profusion of cyber space have created colossal of voltaic dossier. The disseminate nature of our internet system and databases, even sohas comminated in a mixture of fulfilment and differing of heterogeneous database, accomplishing avenue to and gathering and combining of data toilsome athwart databases. The diacritic technologies used to make the integration are familiar. But our objective here is the inaugural description of these technologies that are presented together in well-organized manner to give an outline of how it is probable to collaborate different internet systems with purport relaxed ACID properties.

Main idea is to integrate heterogeneous database of the suppliers with the ERP system into a single format on the fly using ACID properties in a relaxed manner. The use of placid ACID properties across distinct databases that are heterogeneous gives the user a perspective of data that may be erratic but in proceeding function as if conventional ACID properties are implemented so that users can trust the data they use. Placid ACID properties give user a perspective that data may be erratic across various database but in proceeding function as if conventional ACID properties are implemented.

IndexTerms—ACID properties, heterogeneous database, suppliers, ERP system, internet system

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I. INTRODUCTION

To make the database reconstruction and restoration uncomplicated and for all user environment to make it probable to accord coetaneous transactions a sequent and rational aspect of data enclosed in database. So to provide data in the database with a persistent view for the users the ACID properties are of prime importance.

In several situations, the availability and the response time will be unacceptable if the ACID properties of a DBMS are used without reflection. Information systems that operate in different locations can be integrated by using more or less common data and or by exchanging information between the systems involved. In both situations, the union of the databases of the different systems may be implemented as a database with so called relaxed ACID properties where temporary inconsistencies may occur in a controlled manner. However, when implementing relaxed ACID properties it is important that from a user's point of view it must still seem as if traditional ACID properties were implemented.

Innow integration concerning distributed heterogeneous database adopting integration of e-commerce system of supplier as example presents how implementation of ACID properties in a placid way can be used to blend ERP system from diverse companies. Individual technologies are available but never in organized manner. Seamless integration of ERP system concerning suppliers and ecommerce.

II. LITERATURE SURVEY

In this part we cite the pertinent former literature that uses the various characterization techniques. Most of the researchers concentrate on sentence derivation rather than sentence generation for text characterization. Extractive characterizations are fragile. Abstractivecharacterizationsare more powerful.

Paper [2] proposed an approach based on XML for combining distributed heterogeneous databases. Structured data extensively exists in diverse information systems, least uncommon relational database. Semi-structured data generally has Web pages as the leading representative and XML can adequately manage data as well as process it. Unstructured data has common files, email and various documents. A foundation for heterogeneous database combination system is presented as well as designed the system provides a heterogeneous data sharing and combination middle platform to achieve transparent operation and coherent integration of the heterogeneous data.

The paper [5] depicts how the database heterogeneity problem applies equally to medicinal data illustrating patients and biological data characterizing our gene. Databases are eminently heterogeneous with admiration to the data models they exploit, indicated data schemas, the query languages they brace and the terminologies they perceive. Database systems that are heterogeneous attempt to merge dispersed databases by supplying consistent conceptual schemas that simplify representational heterogeneities and by contributing querying capabilities that cumulate and harmonize data which is distributed. Probe in this field has enforced a variety of database and knowledge-based techniques, in addition to semantic data modelling, ideology definition, query adaptation, optimization of query.

Paper[3] proposed object-oriented approach which focuses on the creation of universal schema over set of these regional component database schemas to provide a orderly representation of regional schemas. Intent of this paper was to use object-oriented method to integrate schemas of distributed heterogeneous independent regional component database schemas into universal schema. The resulting universal schemas add a uniform interface and high level of location transparency for recovery of data from the regional component databases.

Paper [4] focuses single query from a client can recover joined data from the table on the regional database and the table of the distant database with the aid of agents.

Paper [6] we describe the MedInt model which is mainly consist of a arbiters and wrappers. An arbiter is the middle-tier between the application and wrappers which is responsible for sending sub queries to each wrapper, and for integrating the outcome retrieved back from the wrappers. Wrapper functions contain translating queues into those that data sources can recognize and converting results in to common model applied in the arbiter. The MDL is the interchangeable data model used in the MedInt as among the critical components to represent the heterogeneity of data sources.

Paper [7] displays a system in which the human intervention was curtailed which was needed for semantic integration. It adopts an automatic classifier algorithm to categorize attributes and then employ a learning back-propagation algorithm to train a network to identify input patterns and resolve similarity between attributes. The exploratory results show the efficiency and effectiveness of this method.

III. Problem Statement

Our predominant Moto is to integrate the heterogeneous databases of different ERP system with a web module so that to maintain our business standards and taken the output as efficiently by mining over different distributed databases. It is impossible to use conventional ACID properties that are why we are using placid acid properties. Here entire process is call as ETL (Extract, Transform, and Load).

IV. Methodology

Predominant aim is to show how it is possible to integrate different heterogeneous databasesWithout failing the consistency of the involved data. We describe here how it is feasible to integrate different ERP systems with so termed placid or relaxed ACID properties with the help of SOA services not with losing the consistency of involved data.
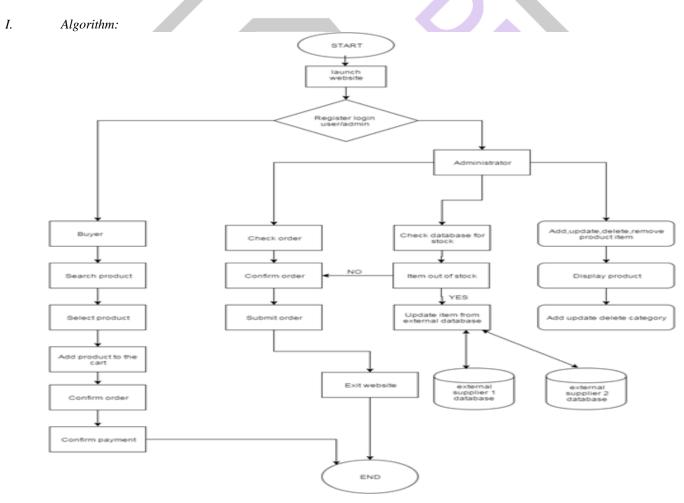
I.   Algorithm:

Fig. 1 The project Flowchart

The figure above that illustrates the flow chart algorithm of the entire ordering system which is a graphical presentation of what the partners of the system attain in their purchasing activity as well as selling and management processes along with integration of external supplier database. This elementary shopping sequential events trend flow in speculation as intend in our system goes by the algorithm below:

Algorithm is divided in two parts:
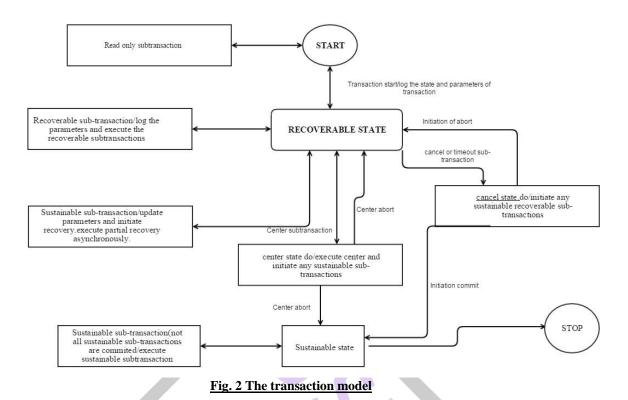
USER TRANSACTION ALGORITHM:

STEP 1:   START

STEP 2:   The user visits the online shopping website

STEP 3:   The user details will be registered.

STEP 4:   The user will search the desired product from the category.

STEP 5:   The user adds products to the shopping basket.

STEP 6:   Users discard the added products which they do not wish buying
                     any longer.

STEP 7:   User will confirm his order.

STEP 8:   user payment details will be confirmed.

STEP 9:   exit the website.

STEP 10:   END.

ADMINISTRATOR TRANSACTION ALGORITHM:

STEP 1:   START

STEP 2:   Admin will login with his credentials.

STEP 3:   Admin will check the order product and verify its availability from stock database

STEP 4:   If the product is present in the database go to next step and if the product is not available in the database update or add product form the external supplier databases.

STEP 5:   The customer order will be confirmed.

STEP 6:   Users discard the added products which they do not wish in buying
                        Any longer.

STEP 7:   User will confirm his order

STEP 10:   END

II.   *The Transaction Model*

This stage produces the pre-processed sentences from the accepted the input document. This stage examinees the proposed text, produces the typed dependency relations and POS tags for every word. It interconnects sentence build affluent semantic sub-graphs. Finally the sub-graphs are combined to represent the entire document semantically.

Fig. 2 The transaction model

Universal transaction model
It consists of client transaction (root transaction) and server transaction. Client transaction manages exchange of information with the user and sub-transactions are used to access the data.

Centre sub-transaction
This maintains the atomicity in universal transaction. Universal transaction is said to be committed only if the centre transaction is committed regionally. If centre transaction is aborted all updates of the sub-transaction should be recovered or removed to regulate atomicity property. Customer adding product to the cart.

Recoverable transaction
Universal transaction is assured to be committed only if the centre transaction committed regionally. If centre transaction is aborted all updates of the sub-transaction should be recovered or removed in order to retain atomicity property. Decrease the stock levels in other locations.

Sustainable sub-transaction
Outlined in such a way that execution is assured to commit if the centre transaction has been committed. They can be used to update replicated data and increment the stock levels.

V. CONCLUSION

Big As this method shows well organized integration between different heterogeneous databases of the suppliers in a single format using relaxed ACID properties. Relaxed ACID properties provide optimized performance and response time as per business standard of e-commerce system compared to traditional properties. Avoids false commitment and improves availability of products to customers and achieves main aim of e-commerce system customer retention. Can also be used for collaborating airline, hospitality and educational systems.

The use of ACID properties in a relaxed or placid manner traversing various heterogeneous databases gives the user view a perspective of data that may be conflicting but in actual function as if conventional ACID properties are enforced so that users can trust the data they use. This integration technique satisfies the main objectives of real time systems like e-commerce system of high availability and fast response important for avoiding customer divergence due dissatisfaction.

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