

Blockchain and Blackboard Technology for Database Systems

Venkata Subba Reddy Poli¹

¹ Sri Venkateswara University

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Abstract

Blockchain is transaction process which minimize transaction and data items of data sets that are encrypted transferred data items with secure data. It is peer to peer technology. The Blockchain is transaction flow or series of transactions. Blackboard technology is used transaction store and retrieve independently. In This paper, Blockchain and blackboard technology is combined for transaction processing. The communication cost and retriall cost will be reduced using Blockchain and Blackboard technology.

Index terms— mapreduce, steiner trees, blockchain technology, blackboard systems.

Blockchain made valid chain of transactions using decryption codes. It made transaction between two nodes by introducing intermediate node or Steiner node.

Steiner tree is optimal tree by introducing intermediate node or Steiner node.

The Blockchain technology may be studied using strainer trees. Here OTP is FOT number

The logical design Blockchain technology does not change logical independence. The transaction shall be made with or without Blockchain technology but Blockchain technology is minimize the series of transactions. For instance, logical query is given by Q1: Update loan return amount paid by borrower.

1 IV. MAPREDUCE ALGORITHM FOR CONCURRENCY USING BLACKBOARD SYSTEM

Usually in database systems, the entire data has to taken into main memory for operation. There is no need to take entire data in main memory in Blackboard Architecture, Blackboard Architecture used to store and retrieve knowledge sources [3]. Data mining is a knowledge discovery process. Blackboard Architecture may used to store and retrieve data sources. Parallel, distributed and concurrent retrieval of data items shall be achieved through the Blackboard architecture.

The blackboard systems may construct with the creation of data item sources in Oracle. Here is algorithm is given to create blackboard architecture, store and retrieve for data item sources.

For instance, each account is a table for banking information systems. ??
-8347102 Rama 10000 SQL> select * from ab8347103 where acno=8347103; ??

— The transaction may be defined using SQL as UPDATE ab8347107 SET balance = balance + 1000 WHERE account no = ; ab8347107. These data items are stored in blackboard structure. h(x) is create, store and retrieval of data sources. When transaction being possessing, there is no need to take entire database into main memory. Just it is sufficient to retrieval of particular data item of particular transaction from the blackboard system.

2 Algorithm: Begin

3 ACNO ACNAME ACBAL

The advantage of blackboard architecture is directly operated on data sources.

The Blockchain technology is also operates on data sources or data items to direct transactions.

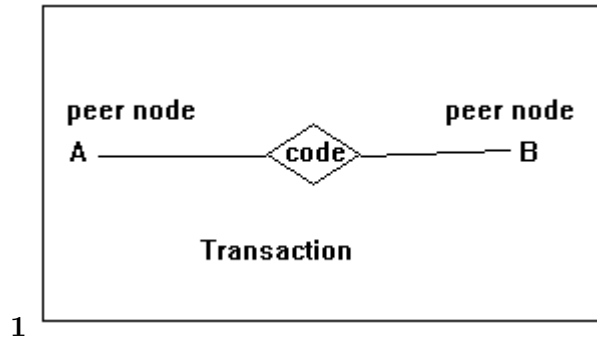


Figure 1: Figure 1 :

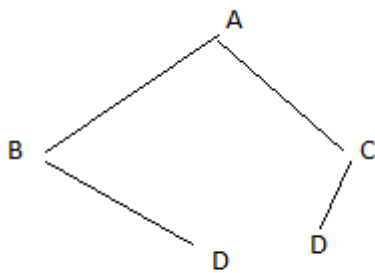


Figure 2:

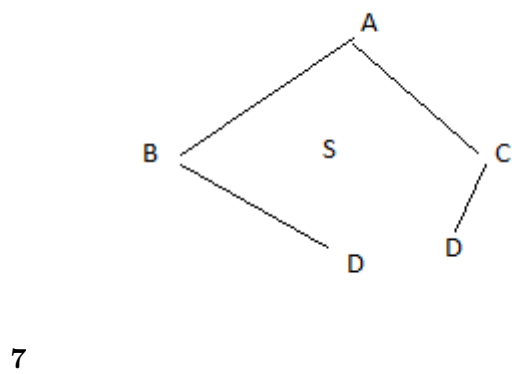
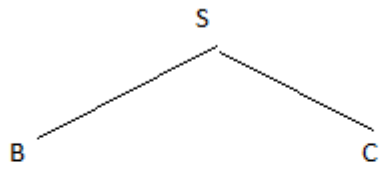
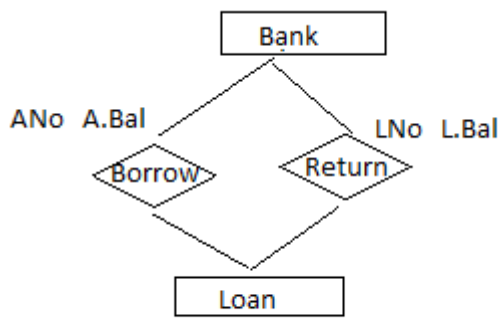


Figure 3: Figure 7 :



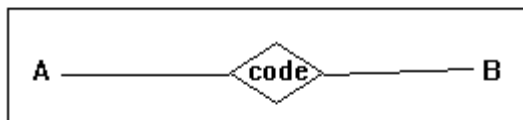
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Figure 4: Figure 8 :



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Figure 5: Figure 9 :



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Figure 6: Figure 10 :

Figure 11: Blockchain

Inserted accounts into blackboard structure.
SQL> insert into ab8347102 values (8347102, 'Rama',
10000);
SQL> insert into ab8347103 values (8347103, 'Sita',
16000);
SQL> insert into ab8347104 values (8347104, 'John',
20000);
SQL> insert into 8347105 values (8347105, 'Khan',
15000);
SQL> insert into ab8347106 values (8347106, 'Marry',
18000);
SQL> insert into ab8347107 values (8347107, 'Krishna',
25000);
Select each account number from blackboard structure.
SQL> select * from ab8347102 where acno=8347102;
ACNO ACNAME ACBAL
Insert data item into account number table
Retrieve data item from account number table
End
Each data item is data source which is created by h(x)
account number table.
The blackboard structure is created with each account.
SQL> create table ab8347102 (acno int, acname
varchar (10), acbal real);

Figure 7:

WHERE condition;
Here is an example
CREATE VIEW account AS
SELECT *
FROM ab8347101, ab8347102,?, ab834710.

8347103 Sita

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() C

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16000

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Figure 8:

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