Abstract

One of the most important applications of distributed systems is enabling resource sharing between systems. In such environments, if a sequence of procedures to control resource allocation is not possible to create a deadlock exists. Deadlock problem for a distributed database system that uses locking as a concurrency control algorithm, as there are inherent. The following new rule for the modeling of the proposed method using colored Petri nets is presented. In the model proposed the new rules for mapping TWFG with colored Petri nets for modeling the deadlocks detection and resolve. Colored Petri net is considered one of the most widely used formal methods capable of modeling a wide variety of distributed systems are concurrent. A lot of work being done to define the concurrency execution of transactions in Petri nets is that none of these methods of communication with how mapping TWFG with colored Petri nets for modeling the deadlocks detection and resolve.
- Himanshi Grover and Suresh Kumar, "ANALYSIS OF DEADLOCK DETECTION
AND RESOLUTION TECHNIQUES IN DISTRIBUTED DATABASE ENVIRONMENT";
- Srinivasan Selvaraj and Rajaram Ramasamy, "An Efficient Detection and Resolution of Generalized Deadlocks in Distributed Systems";
- M. Tamer Ozsu and Patrick Valdurie, "Principles OF Distributed Database System";
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- Knapp. E., "Deadlock Detection in Distributed Databases";
- Noriyani Mohd Zin, A. Noraziah, Ahmed N. Abdalla and Ainul Azila CheFauzi, "Solving Two Deadlock Cycles through Neighbor Replication on Grid Deadlock Detection Model";
- Masoomeh Ghodrati and Ali Harounabadi, "A New Method for Optimization of Deadlock resolution of Distributed Database with Formal Model";

Index Terms
Computer Science Distributed Systems

Keywords
Resolution deadlock cycle colored Petri net mapping TWFG.
Provide a New Mapping for Deadlock Detection and Resolution Modeling of Distributed Database to Colored Petri Net