NOSQL DATABASE FOR STORING HISTORIC RECORDS IN MONITORING SYSTEMS: SELECTION PROCESS

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Abstract.

The storage of historical information consists of the registration of large concentrations of data based on samples of information issued by a given system. Historical databases play a key role in industrial control systems that process and provide the information needed for the tasks of supervision, event records, management, and maintenance in the industrial sector. The purpose of the present research is to analyze the current state of monitoring and control systems, recognizing their advantages and disadvantages, and reaching the state of the art about the selection of a NoSQL database for the recording of time series. The development of the work focused on the comparison of columnoriented storage managers as HBase, Cassandra, and Big Table. After designing and implementing two cases of tests for comparing the behavior of both managers in the scenarios of Intensive Readings and Reading/Writing, it was concluded that both of them present excellent performance for storing historic records.

Keywords

Database, Historic record, NoSQL, Supervision and control