The Application and Realization Of XML Transform Middleware in Electronic Medical Records

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Summary

As one kind of descriptive language which is independent of the platform, XML is widely used for its high extension. When it comes to the data of a patient's medical record, they are dispersed at the hospital's different service database systems. Then how to integrate these data and set them in a document which is "patient centered" appears more and more essential. In view of this, we have realized an middleware for the transformation of XML. It can be used for the dynamical transformation between the data in medical database systems and XML. It also can be used to the uniform archive information integration of the electronic medical record.

Regardless of the interior or the outside data requested must hand in the form of XML to middleware. Realize the interactive with the database by middleware. The results of the middleware which operated the database still in form of the XML feedback to the request . We designed based on the XML database transform middleware, can transparently cause the application system to be highly effective, unified to visit the data which located in the different hardware platform, the operating system database, this middleware design may enhance the database efficiency, the system may act according to the client side the request, the tendency completes in the database the data and the XML document transformation, thus shields the SQL language completely to the procedure development personnel.

The XML transform middleware mainly realizes the function below:

First, completes the transformation between relation database and XML documents.

In order to correctly exchanges the data between the different databases should be supposed to guarantee both sides use in the exchange data table have the similar structure, and produced XML document which description database structure, for clearly describe the database structure to enable opposite part to be possible to produce the similar table to carry on the data exchange.

Second, Completes the Electronic Medical Record data unification pigeonhole with the medical record data integration.

The scope of the pigeonhole which according to the medical record document carries on the unification to the medical record documents to file away, realizes the static and the dynamic medical record data separation, disperses the patient in each service database system medical record data concentrates to together, forms take "the patient as the center" XML document.

It is proved that XML transform middleware in Electronic Medical Record design and the realization is completely feasible, moreover has the actual application values. Because of the patient medical record comes from various of service database system, these database system are develop by different merchant ,so the realization of the XML transform middleware it is very helpful for patient medical record information centralism gathering ,and make the pigeonhole of the Electronic Medical Record very convenience, will have the extremely vital significance on medical record data sharing and exchanging in future.