The Great Mind Challenge - Project Scenario Template

Note: Already filled information should not be changed

1.	**Name of the Project**	**Database Concurrency Comparator**
2.	**Objective/ Vision**	There is a growing trend among software vendors to develop applications based upon the 3-tier architecture with distinct Presentation, Business Logic and Data Access tiers. One of the benefits of this approach is that it enables vendors to develop products for one database platform and to later migrate it to support new platforms as market needs change.
3.	**Users of the System**	**A. DBA** **B. General user** **C. Migration user** **D. Administrator**
4.	**Functional Requirements (Atleast Eight)**	i. Migrating to a new RDBMS ensuring that application behaves in exactly the same way against RDBMS's built on different concurrency models. ii. Simply put, the same set of SQL statements (insert/delete/select/ update) fired in the same sequence against different databases *need not* produce the same results due to differences in the locking semantics of each platform. iii. Tool should capture all SQL activity occurring in the parent database environment. iv. In the migrated system, the SQL activities against Database A in a multi-user simulation need to replay the migrated version of these SQL's against Database B in exactly the same multi-user sequence. v. The tool should also verify if identical results are obtained at each step of the way from both systems. vi. Tool should simplify the detection, resolution and verification of concurrency issues in OLTP applications. vii. The tools should encourage vendors to adopt new database platforms with greater confidence.
5.	**Non-functional requirements (Atleast Four)**	i. **Secure access of confidential data (user's details). SSL can be used.** ii. **24 X 7 availability** **iii. Better component design to get better performance at peak time** **iv. Flexible service based architecture will be highly desirable for future extension**
6.	**Optional features**	**a.** **b.** **c.**
7.	**User interface priorities**	**A. Professional look and feel** **B. Use of AJAX atleast with all registration forms** **C. Browser testing and support for IE, NN, Mozila, and Firefox.**

		D. Use of Graphical tool like JASPER to show strategic data to admin **E. Reports exportable in .XLS, .PDF or any other desirable format**
8.	**Reports**	i. SQL activity reports ii. Error reports iii. Migration reports iv. Log reports v. Reports customizing the stored data in a platform independent format and displaying it using style sheets. ii. Admin must be able to data in reports in excel sheets iii. Admin must be able to make pictorial depiction of data in excel sheets for better understanding iv. Reports should be elaborate for all the users.
9.	**Other important issues**	**A.** **B.**
10.	**Team Size**	**2 - 4**
11.	**Technologies to be used**	**UML, J2EE, XML, e-Forms, AJAX, Web 2.0, Web-services, SOA**
12.	**Tools to be Used**	• **ROSE/RSA / WebSphere Modeler** • **Eclipse/ RAD / Lotus Forms Designer / Portlet Factory** • **WebSphere Portal/ WAS/ WAS CE / WPS** • **DB2 Express – 'C' or DB2 UDB** • **Tivoli CDP/TSM / Tivoli Directory Server** • **Linux will be the preferred OS.**
13.	**Final Deliverable must include**	**A. Online or offline help to above said users, Application deployment executive and developer** **B. Application archive (.war/.ear) with source code** **C. Database backup and DDL Script** **D. Complete Source code**