

## The Great Mind Challenge - Project Scenario Template

1.	<b>Name of the Project</b>	<b>Virtual Learning Environment (VLE)</b>
2.	<b>Objective/ Vision</b>	<ul style="list-style-type: none"> <li>• To provide web based application for online course design, course calendar publishing, and student's registrations for self-paced learning.</li> <li>• Content administration, assignments, and assessments</li> <li>• Virtual classrooms (for distance learning)</li> </ul>
3.	<b>Users of the System</b>	<p>A. Students            B. Faculty/Teachers/Professors            C. Parents            D. Admins</p>
4.	<b>Functional Requirements (Atleast Eight)</b>	<p>i. The system must be able to display the course syllabus. Also, other information like prerequisites, registration, payments, and contact information for the instructor should be displayed.</p> <p>ii. The system should provide a student registration module through students can register themselves for an offered course.</p> <p>iii. The system must provide a dashboard which will be the home page after login. The dashboard should display courses registered, upcoming course calendar, and notice board for current information about the ongoing courses etc.</p> <p>iv. The system should provide the course contents such as copies of lecture in the form of text, audio, or video presentations etc.</p> <p>v. The system should offer self-assessment quizzes which will be displayed to users after each course attended.</p> <p>vi. The system should also provide the examination module for final assessment. This includes hall ticket issuance, exam schedule and exam center information etc.</p> <p>vii. The system should support email for communication with the faculty for support and guidance.</p> <p>viii. The system should also provide role based access to students, faculty, and course administrator.</p> <p>ix. The system should provide a module to design course, to create course calendar, and publish the course content.</p> <p>x. The system should also provide various statistical reports accessible to administrators.</p>
5.	<b>Non-functional requirements (Atleast Four)</b>	<p>i. HTTPS enables access to web application to secure access of confidential data (student's records). 24 X 7 availability</p> <p>ii. The system must be design for better performance.</p> <p>iii. The system must be scalable in future.</p>

		<p>iv. <b>Component based architecture should be used</b></p> <p>v. <b>There should be loose coupling between software components.</b></p>
6.	<b>Optional features</b>	<p>a. <b>The main objective of this project is to design a Virtual Learning Platform which can be extended in future and can be sued by many universities and colleges.</b></p>
7.	<b>User interface priorities</b>	<p>A. <b>Professional and standard look and feel.</b></p> <p>B. <b>The UI should be based on AJAX technology (jQuery).</b></p> <p>C. <b>The application must support popular browsers such as IE, Firefox, and Chrome.</b></p> <p>D. <b>Make use to reporting tools such as JASPER to generate statistical reports</b></p> <p>E. <b>Reports should exportable in .XLS, .PDF formats.</b></p>
8.	<b>Reports</b>	<p>A. <b>Annual student data reports showing course applicants, enrollment, and results</b></p> <p>B. <b>Also, the report framework should be extensible to add more reports in future.</b></p>
9.	<b>Other important issues</b>	
10.	<b>Team Size</b>	<b>2 – 4 members</b>
11.	<b>Technologies to be used</b>	<b>UML, Java/J2EE, XML, JQuery, Web 2.0, Web-services, SOA</b>
12.	<b>Tools to be Used</b>	<ul style="list-style-type: none"> <li>• <b>UML Modeling tool (e.g. IBM RSA)</b></li> <li>• <b>RAD (Eclipse IDE)</b></li> <li>• <b>MVC Framework (e.g. IBM Portal, Spring)</b></li> <li>• <b>DB2 Express – ‘C’ or DB2 UDB</b></li> <li>• <b>Linux (Ubuntu 12.04 TLS)</b></li> <li>• <b>WebSphere Application Server(WAS)</b></li> <li>• <b>LDAP (or Tivoli Directory Server)</b></li> </ul>
13.	<b>Final Deliverable must include</b>	<p>A. <b>Online or offline help to above said users, Application deployment executive and developer</b></p> <p>B. <b>Application archive ( .war/.ear ) with source code</b></p> <p>C. <b>Database backup and DDL Script</b></p> <p>D. <b>Complete Source code</b></p>