Software Requirements Specification

VIRTUAL CLASSROOM

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**1.0 Introduction**

**1.1 Purpose:**

This project aims is to provide a Virtual Classroom for the students and faculty member . In this we provide all the facility of a classroom online which help the students and faculty members to attend class at any time.

This project address the critical requirements of the classroom. In this project our aim is to provide the virtual classroom website which is easy to use and convey real conceivable benefits of classroom which reduce the paper overload.

This project provide platform for the Admin, Student, and Faculty members. This Classroom will act as a mediator between faculty and Students. The data updated gets stored on server so the information is secure and accessible by the users depending on the requirement and type of user.

There is 3 most important entities used in the existing system/application:

* ADMIN
* FACULTY MEMBER
* STUDENT

**1.2 Features:**

Our project provide a single platform for faculty and students.

Faculty member can upload notes, give assignment, check assignment and many more operation and similarly student can download and upload data as per his requirements.

There are various attractive features of Our Virtual Class Room-

* Information is stored on Server.
* Works on the concept of Access from anywhere" which in turn increases the data store capacity and computational power.
* Maintain the consistency and security of the data.
* Reduce the overhead from the database handler which presently depends on the manually work.
* Provide the good portability feature that means anyone can access this system anywhere anytime on the account of their need.

**1.3 Scope:**

* **Admin** : He /She act as a System administrator of our classroom which is responsible for managing the database, authorization of users, maintain record.
* **Faculty:** Faculty member can upload the notes and assignment of the alloated subject .faculty member can also conduct the exam and update question bank and many more .
* **Student :** Student can visit classroom, take test ,ask query to teacher, enroll as many subject as per his choice ,submit feedback and many more.

**1.4 Definitions , Acronyms and Abbreviations :**

* **JSP:**  *‘Java Server Pages’* (It is used to create dynamic web content.).
* **J2EE:**  *‘Java 2 Enterprise Edition’*(programming Platform which is a part of java platform for developing and running distributed java).
* **UML : ‘***Unified Modeling Language’* (is a standard language for writing software blueprint. The UML may be used to visualize, specify, construct and document).
* **XML : ‘***Extensible Markup Language’* **(**is a text based format that let developers describe, deliver and exchange structured data between a range of applications to client for display and manipulation.).
* **HTTP :** *Hypertext Transfer Protocol***. (**It’s a service protocol.).
* **References:**
* Object Oriented Modelling and Design with UML-Michael Blaha, James Rambaugh.
* Software Engineering, Seventh Edition, Ian Sommerville and Rajiv Mall.
* Database Management Systems – Navathe
* Wikipedia - [www.wikipedia.com](http://www.wikipedia.com/)

**1.6 Technology to be used/Requirments**:

NetBeans : Used for application development.

HTML : Hyper Text Markup Language.

JAVA : Application architecture.

SQL : Database

**2 Overall Description**

**2.1 Product Perspective:**

* **Admin** : He /She act as a System administrator of our classroom which is responsible for managing the database, authorization of users, maintain record.
* **Faculty:** faculty member can upload the notes and assignment of the alloated subject .faculty member can also conduct the exam and update question bank and many more .
* **Student :** Student can visit classroom, take test ,ask query to teacher, enroll as many subject as per his choice ,submit feedback and many more.

**2.2 Other Non-functional Requirements**

**2.3.1 Performance Requirements**

* Secure access of confidential data (user’s details). SSL can be used.
* 24 X 7 availability.
* Better component design to get better performance at peak time.
* Flexible service based architecture will be highly desirable for future extension.
* **Safety and Security Requirements**

For the safety requirements clients and the officials must have to follow some precautions:-

* Never access your login id in front of anyone, maintain privacy while entering your login password.
* Never tell anybody to login your id.
* Never tell your login password to anybody.
* Keep changing your login password after an interval of time to make it secure.
* **Users and Characteristics**

Every user should be familiar with English Language and he/she should have a basic knowledge of computer operations and should be comfortable with the general purpose computer application.

* Student login ID and password.
* Faculty login ID and password.
* Admin login ID and password.

**Users of the System**

* Administrator.
* Faculty Member.
* Student

**2.5 Software Interface**

**Client on Internet**

Web Browser, Operating System (any),

**Data Base Server**

Mysql Server is used as a database.

**Development End**

J2EE, Java, Java Bean, Servlets , HTML,JSP cloud server, OS (Windows), NetBeans.

**2.6 Communication Interface**

All the user use online classroom website provided by us.

**2.7 Constraints**

* GUI is only in English.
* Login and password is used for the identification of users.