Nishant srs - srs document pdf handwritten

Software Engineering (Lovely Professional University)

Software Requirement Specifications (SRS) Document

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SRS DOCUMENT

on online learning Website — Coursera

1. Introduction: The E-Learning Website {Coursera} is the technology used to support Remote-learning. The Coursera platform is developed to the level where all kinds of multimedia exchange mechanisms are successfully used in order to stimulate conventional classroom. Available to the students and teachers are the set of tools, which help convey both synchronous and asynchronous lectures. These videos include video/audio, conferencing, shared drawing and text spaces etc

1.1 Purpose: The Software Requirement Specification (SRS) specifies the requirements of Online Learning website (Coursera) which will be used by students and teachers. This will provide facility to the institute and students in a manner that the learning, evaluation; assessment doesnot remain limited to four wall of a classroom.

This website works finding new ways to make an institute centre of excellence in education by providing all the study material, exams available to students online. The students belonging to different places, unable to attend classes regularly get access to educational courses across wide range of programs.

1.2 Scope : This will mainly be used by distance education programs offerred by institutes in order to enable students to get the academic facilities from any computer connected to the internet. This website is designed a way that it can be easily extended to provide more facilities to students to communicate with faculty regarding academics.

1.3 References : IEEE
- IEEE Std 830-1998 IEEE Recommended Practise for Software Requirement Specification, Computer society, 1998.

1.4 Definitions, Acronyms and Abbreviations :

- LMS — Learning Management system
- ILT — Instructor - LED training
- ISD — Instructional Systems design
- SCORM — Sharable Courseware Object reference Model
- USI — Unique Student Identifier
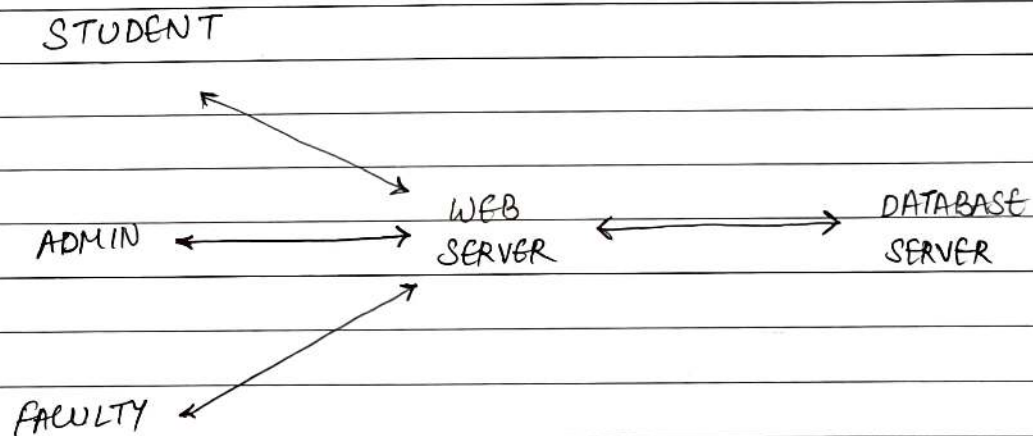- DMS — Document Management System

1.5 Overview : The remaining sections of this document provide a general description, including characteristics of the users of this project, product's hardware and the functional and data requirements of the product. General description of this project is discussed in Section - 2 of this document. Section 3 gives the

functional requirements and data requirements and constraints and assumptions while designing online learning website - Coursera. It also gives the user viewpoint of product. Section 3 also gives the specific requirement of this product. It also discusses the external interface requirements and give detailed description of functional requirements. Section 4 is for supporting information.

2. Overall Design / Description : ●

2.1 System Architecture :

STUDENT

ADMIN ⟷ WEB SERVER ⟷ DATABASE SERVER

FACULTY ●

2.2 User Characteristics

⇒ The system will be having 3 roles - faculty, Student & Administrator.

2.2.1 Faculty : This role enables the user to offer courses, upload lectures, set exams for courses he is offering

2.2.2. Student : This role enables the user to register for courses, answer tests, view lectures.

2.2.3 Administrator : This role enables the users (create, edit, delete) besides performing other administrative tasks such as monitoring the system operation, editing system configurations etc.

3 Specific Requirements Are :—

3.1 Functionality :

• Introduction :— This subsection contains the requirements for an online learning website — Coursera. All these functional requirements can be traced using tractability matrix.

3.1.1 Account features
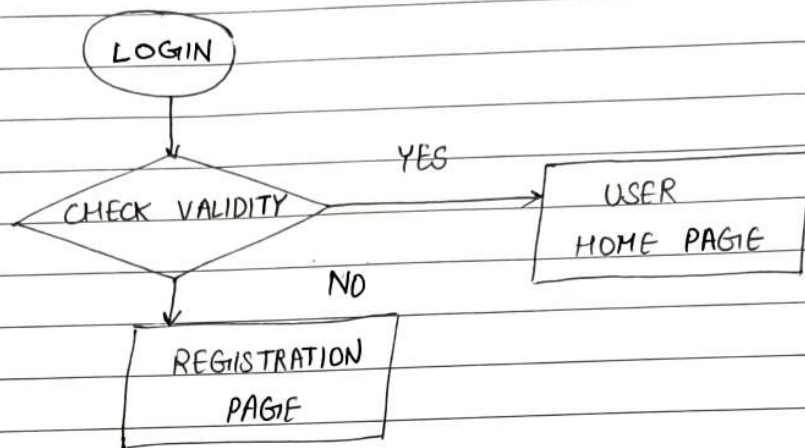
3.1.1.1
Input : User selects login option
Output: User prompted to enter email and password or ~~user~~ user can continue with it's google account

3.1.1.2

Input : Users selects login option and enter password that they already ~~process~~ possess.
Output : System will protect password and other user information and ensure it will not be viewable by others except administrator.

Data Flow diagram — Coursera

3.1.1.3

Input : User clicks on Edit Profile
Processing : Any change in the system is confirmed
            via an email sent to user's
            email account.

    Changes :- Profile photo, Employment Status, Occupation,
              Experience level, Field or Major, University
              Location, Details about you etc.

3.1.2

Course creation, Modification and Deletion

3.1.2.1

Input : User can explore the courses in the system
        and can select search option

Output : User prompted to enter the key words
         related to the course.

3.1.2.2

Input : User enter keywords related to the courses

Processing : The list of courses are searched for matching keywords

Output : Details of all the courses who's tittle name matches with any of the key words.

Details : Price of the courses, duration of the courses. Name of institution, Name of the tutor etc.

3.1.2.3

Input : User clicks on the course he is looking for

Output : Details of that particular course will be shown

3.1.2.4

Input : User clicks on Enroll

Output : Price of the course according to the user's pace will be mentioned

3.1.2.5

Input : User selects the pace he/she interested in.

Processing : The total amount of the course will come

Output : Continue option will be there.

3.1.2.6

Input : User selects continue option.

Processing : Different payment options will be there

Output : Continue to pay option will be there.

3.1.2.7

Input :   User enters his mobile phone number
Processing :   Verification is done using OTP
~~Output :~~ ~~User~~ ~~pay~~ ~~proceed~~ ~~the~~ ~~payment~~.
Output :   User gets the payment method page.

3.1.2.8

Input :   User selects the payment method and pay the
price of the course
Processing :   Payment is processed at the backend
by Razorpay Trusted Business
Output :   Payment successful and user is now enrolled
to the course.

4   General Constraints :-

4.1 Technology Constraints :-

Proposed web application will be implemented with Java for front end design purpose & for the database purpose we can opt for Java DB/ Oracle
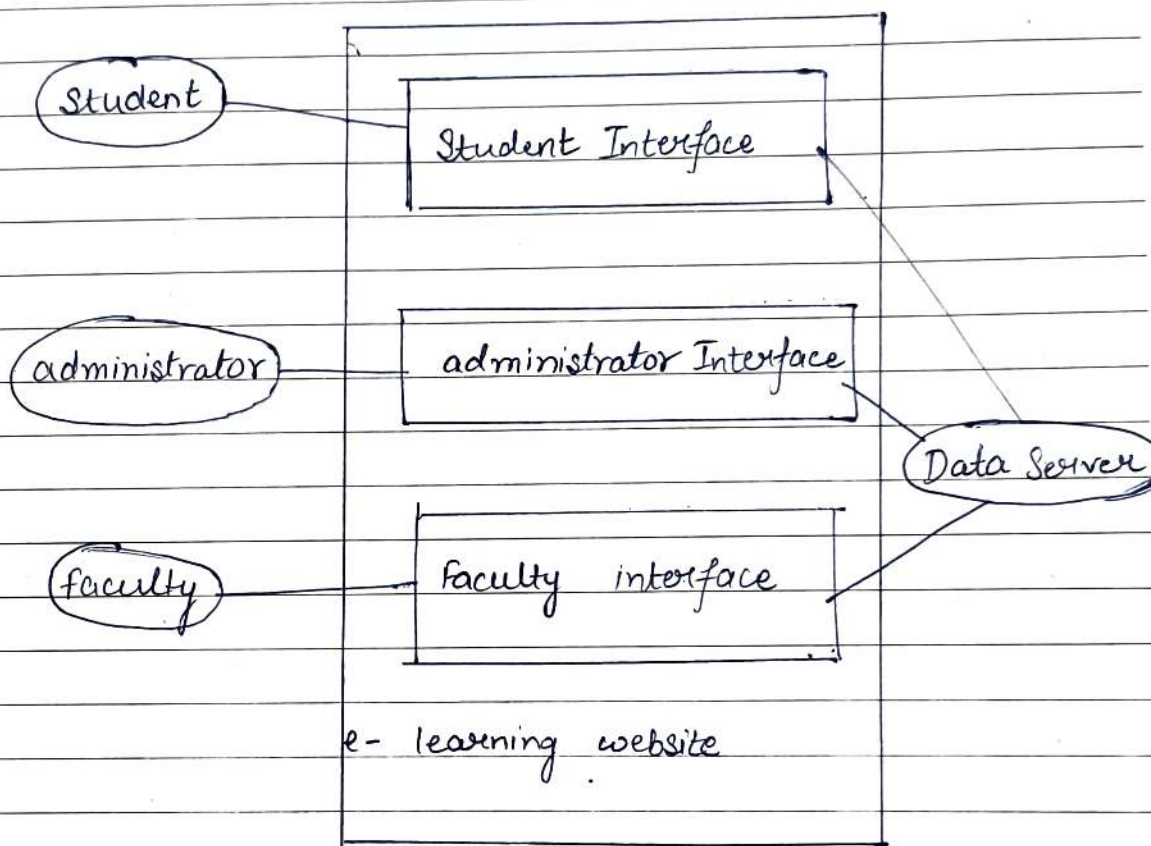
4.2 Interface Constraints :-

Since this is a web based application so it should work on major browsers like internet explorer, Mozilla firefox, Google chrome, Opera etc.

4.3 Safety and Security Constraints :-

Since application is intended for the authenticated users only, so anonymous users should not be able to access and operate over the user data.

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5. Interfaces :-

The system will provide 3 different interfaces to the users based on their roles i.e student, faculty, admin.

5.1 Student Interface :

- Personal Information - This enables the student to view and modify the user's personal experience.
- Access Course Material - This enables the student to see lectures and download study materials of the course.
- Change Password - This enables to students to change password.

5.2 Faculty Interface :-

- Personal Information - This enables the student to view and modify the user's personal info.
- Answer Queries - This will enable the faculties to view queries of the students and post answers to the same.
- Creating exams - This enables the faculty to create an exam and provide questions and answers.

5.3 Administrator Interface:-

- Course Management - This enables an administrator to add, delete, modify course info.
- Student Management - This enables an administrator to add, delete modify course and student accounts.
- View feedback - This enables an administrator to view the feedback received from the students and faculties.
- Search Information - This enables an administrator to access all the info about all the users of the system

6   Non - Functional Requirements :

⇒ Performance Requirement :-

The application should be able to operate on all other major webbrowsers with all of its fundamental functions. It should not slow-down the system even at peak hours without affecting the quality of service of the system.

≠ ~~Securi~~

⇒ Security Requirements :-

• The server on which the E- learning website will have it's own security to prevent unauthorized write/delete access

■ The system should provide a secure login to the users by using advanced secure login algorithms and provide access only to authorized users as security is the key requirement of this system.

■ The user ID and password should not be shared with anyone (students/faculty or anyone else)

Project Name:

Test Case Template

Test Case ID: 1

Test Priority (Low/Medium/High):

Module Name: Online learning website: Courses

Test Title: Verify login with valild Id and Password

Description: Test the website login page

Test Designed by: Nishant Samadhar

Test Designed date: 24/10/2022

Test Executed by: Nishant Samadhar

Test Execution date: 24/10/2022

Pre-conditions: User has valid username and Password

Dependencies:

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
1	login to website	Username and Password	Password should be save and display in Password manager	Password saved & displaying in Password manager	Pass.
2	Provide user name				
3	and password				
4	click on save option				

Post-conditions: User is validated with database and successfully login to account. The account session details are logged in database.

Project Name:

Test Case Template

Test Case ID: 2

Test Priority (Low/Medium/High):

Module Name: Online learning website Courseon

Test Title: Ad Search Box.

Description: Test the search Box.

Test Designed by: Nishant Samadhar

Test Designed date: 24/10/2022

Test Executed by: Nishant Samadhar

Test Execution date: 24/10/2022

Pre-conditions: Users search the Courses & System should be

Dependencies: connected to internet.

Step	Test Steps	Test Data	Expected Result	Actual Result	Status (Pass/Fail)
1	Click on search button	fetching from database	Expected list of course need to be shown	It is showing	Pass
2					
3					
4					

Post-conditions: It terminates to the courses list & successfully showing.