

LEARNING MANAGEMENT SYSTEM

IIHT

Time To Complete: 10 to 12 hr

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1 PROJECT ABSTRACT

In the ever-evolving realm of education, there's a growing necessity for digital platforms that facilitate efficient learning experiences, foster collaboration between educators and learners, and empower individuals to achieve their educational goals. With this vision in mind, the CEO of an educational technology startup, Ms. Garcia, assigns a team of developers with the task of creating a Learning Management System (LMS) using Angular.

Your task is to develop a digital solution that allows users to create courses, enroll students in courses, track their progress, and receive certificates upon completion for educators.

2 PROBLEM STATEMENT

"Learning Management System" is a Single Page Application (SPA) that empowers users with an interactive interface to create new courses, enroll the student among various courses, track students progress in each course and receive certificates upon completion for each course to achieve educational milestones.

3 PROPOSED LEARNING MANAGEMENT SYSTEM WIREFRAME

UI needs improvisation and modification as per given use case and to make test cases passed.

3.1 WELCOME PAGE

localhost:4200/

Learning Management System

Courses

- Introduction to Angular - Learn the basics of Angular, a popular front-end framework.

Add Course

Title	Description	Duration	mm/dd/yyyy	<input type="button" value="Add Course"/>
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Enrolled Students

- John Doe enrolled in

Enroll Student to Course

<input type="text"/>	<input type="text"/>	<input type="button" value="Enroll"/>
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Student Progress

- John Doe in Introduction to Angular: Status - In Progress

Update Progress

<input type="text"/>	<input type="text"/>	Assignment Title	Score	<input type="button" value="Update Progress"/>
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Certificates

- Certificate ID: CERT-1-1-123456 - Student ID: 1 - Course ID: 1

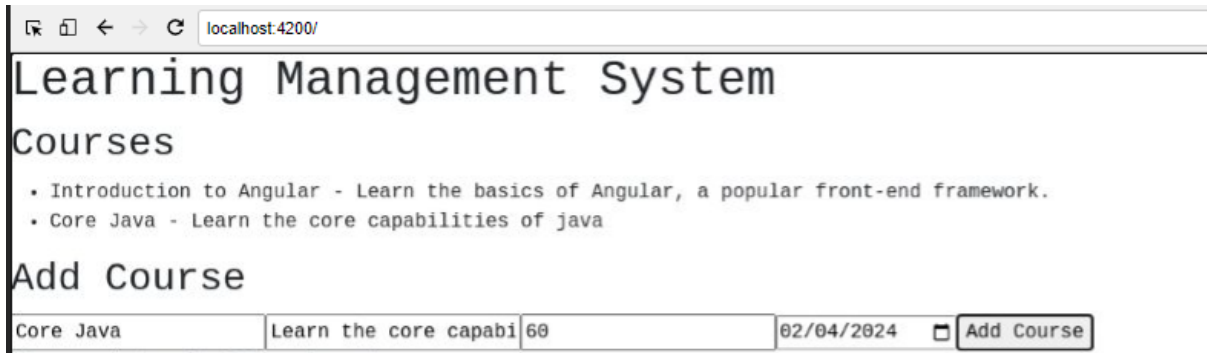
Assign Certificate

<input type="text"/>	<input type="text"/>	<input type="button" value="Assign Certificate"/>
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Already added a course and enrolled a student named "John Doe" with a course and status of it, also assigned a certificate for him.

3.2 SCREENSHOTS

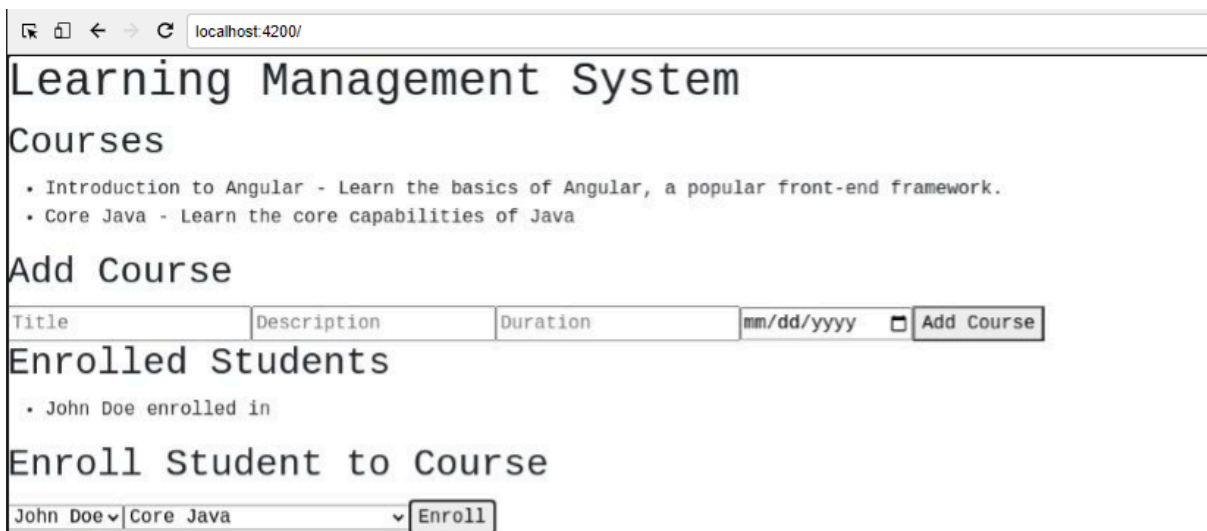
*** Add Course***



A screenshot of a web browser at localhost:4200/ showing the 'Add Course' form. The page has a header 'Learning Management System' and a sub-header 'Courses'. Below these are two bullet points: 'Introduction to Angular - Learn the basics of Angular, a popular front-end framework.' and 'Core Java - Learn the core capabilities of java'. The 'Add Course' form has four input fields: 'Core Java', 'Learn the core capabi', '60', and '02/04/2024'. There is a checkbox and an 'Add Course' button.

Core Java	Learn the core capabi	60	02/04/2024	<input type="checkbox"/>	Add Course
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*** Enroll Student to Course***



A screenshot of a web browser at localhost:4200/ showing the 'Enroll Student to Course' form. The page has a header 'Learning Management System' and a sub-header 'Courses'. Below these are two bullet points: 'Introduction to Angular - Learn the basics of Angular, a popular front-end framework.' and 'Core Java - Learn the core capabilities of Java'. The 'Add Course' form has four input fields: 'Title', 'Description', 'Duration', and 'mm/dd/yyyy'. There is a checkbox and an 'Add Course' button. Below the 'Add Course' form is the 'Enrolled Students' section with a bullet point: 'John Doe enrolled in'. The 'Enroll Student to Course' form has two dropdown menus: 'John Doe' and 'Core Java', and an 'Enroll' button.

Title	Description	Duration	mm/dd/yyyy	<input type="checkbox"/>	Add Course
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Enrolled Students

- John Doe enrolled in

Enroll Student to Course

John Doe	Core Java	Enroll
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*** Update Progress***

localhost:4200/

Learning Management System

Courses

- Introduction to Angular - Learn the basics of Angular, a popular front-end framework.
- Core Java - Learn the core capabilities of Java

Add Course

Title	Description	Duration	mm/dd/yyyy	<input type="checkbox"/>	Add Course
-------	-------------	----------	------------	--------------------------	------------

Enrolled Students

- John Doe enrolled in

Enroll Student to Course

<input type="text"/>	<input type="text"/>	Enroll
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Student Progress

- John Doe in Introduction to Angular: Status - In Progress

Update Progress

John Doe	Introduction to Angular	Create a LMS	60	Update Progress
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*** Assign Certificate***

localhost:4200/

Learning Management System

Courses

- Introduction to Angular - Learn the basics of Angular, a popular front-end framework.
- Core Java - Learn the core capabilities of Java

Add Course

Title	Description	Duration	mm/dd/yyyy	<input type="checkbox"/>	Add Course
-------	-------------	----------	------------	--------------------------	------------

Enrolled Students

- John Doe enrolled in

Enroll Student to Course

John Doe	Core Java	Enroll
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Student Progress

- John Doe in Introduction to Angular: Status - In Progress

Update Progress

John Doe	Introduction to Angular	Create a LMS	60	Update Progress
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Certificates

- Certificate ID: CERT-1-1-123456 - Student ID: 1 - Course ID: 1
- Certificate ID: CERT-1-2-1714031121751 - Student ID: 1 - Course ID: 2

Assign Certificate

John Doe	Core Java	Assign Certificate
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4 BUSINESS-REQUIREMENT:

As an application developer, develop the LMS (Single Page App) with below guidelines:

User Story #	User Story Name	User Story
US_01	Welcome Page	<p>As a user I should be able to visit the welcome page as the default page.</p> <p>Acceptance criteria:</p> <ol style="list-style-type: none">1. Should have "Learning Management System" as heading in h1.2. Should have "Courses", "Add Course", "Enrolled Students", "Enroll Student to Course", "Student Progress", "Update Progress", "Certificates", "Assign Certificate" as heading in h2.3. Users can add a course by filing the respective details and by using the "Add Course" button. Should be able to see the list of courses available.4. Users can enroll students and courses from the dropdown menu and enroll them using the "Enroll" button. Should be able to see the list of enrolled students to a particular course.5. Users can update the progress of students and courses from the dropdown menu by filing the respective details and updating them using the "Update Progress" button. Should be able to see the lists of student Progress.6. Users can assign certificates to respective students and courses from the dropdown menu and assign certificates to them using the "Assign Certificate" button.7. Should be able to see the lists of certificates with auto generated Certificate ID for each certificate with respective Student ID and Course ID. <p>** Kindly refer to the screenshots for any clarifications. **</p>

5 CONSTRAINTS

1. You should be able to press the “TAB” key and “SHIFT + TAB” to navigate from top field to bottom field and vice-versa.

6 MANDATORY ASSESSMENT GUIDELINES

1. All actions like build, compile, running application, running test cases will be through Command Terminal.
2. To open the command terminal the test takers, need to go to Application menu (Three horizontal lines at left top) -> Terminal ->New Terminal.
3. This editor Auto Saves the code.
4. If you want to exit(logout) and continue the coding later anytime (using Save & Exit option on Assessment Landing Page) then you need to use CTRL+Shift+B-command compulsorily on code IDE. This will push or save the updated contents in the internal git/repository. Else the code will not be available in the next login.
5. These are time bound assessments the timer would stop if you logout and while logging in back using the same credentials the timer would resume from the same time it was stopped from the previous logout.
6. This is a web-based application, to run the application on a browser, use the internal browser in the workspace. Click on the second last option on the left panel of IDE, you can find Browser Preview, where you can launch the application.

Note: The application will not run in the local browser

7. You can follow series of command to setup Angular environment once you are in your project-name folder:
 - a. npm install -> Will install all dependencies -> takes 10 to 15 min.
 - b. npm run start -> To compile and deploy the project in browser. You can press the <Ctrl> key while clicking on localhost:4200 to open the project in the browser -> takes 2 to 3 min.
 - c. npm run test -> to run all test cases. **It is mandatory to run this command before submission of workspace -> takes 5 to 6 min.**

8. Once you are done with development and ready with submission, you may navigate to the previous tab and submit the workspace. It is mandatory to click on **“Submit Assessment”** after you are done with code.
9. You need to use CTRL+Shift+B - command compulsorily on code IDE, before final submission as well. This will push or save the updated contents in the internal git/repository, and will be used to evaluate the code quality.