



Module : 3

Project

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Describe a key project you have worked on or are currently working on.

- I am currently in the process of developing an Online Course Registration System for both students and administrators.
- This system will include secure user authentication features, including email verification. If students, faculty, or administrators forget their passwords, they will be able to update their passwords and also email addresses securely.
- Students can view available courses, register for new courses, purchase courses, upgrade their profiles, check which courses they have purchased, review their payment history, and manage their schedules through their dashboard.
- Faculty members will have the ability to manage and upload courses, update course details, and view the list of courses purchased by students.



Describe a key project you have worked on or are currently working on.

- Administrators, on the other hand, will be able to monitor and manage user accounts, generate reports, and oversee the overall usage of the system.
- The project incorporates CRUD operations for course management, prerequisites validation, notifications for important dates, data validation, responsive design, security measures



Explain the technologies used, the scope of the project, and its objectives.

HTML

HTML structures the content and forms of the web pages.

CSS

CSS styles the application, ensuring a visually appealing and responsive design.

JavaScript

JavaScript adds interactivity and dynamic functionalities to the frontend, such as form validation and AJAX for asynchronous operations.



Explain the technologies used, the scope of the project, and its objectives.

Bootstrap

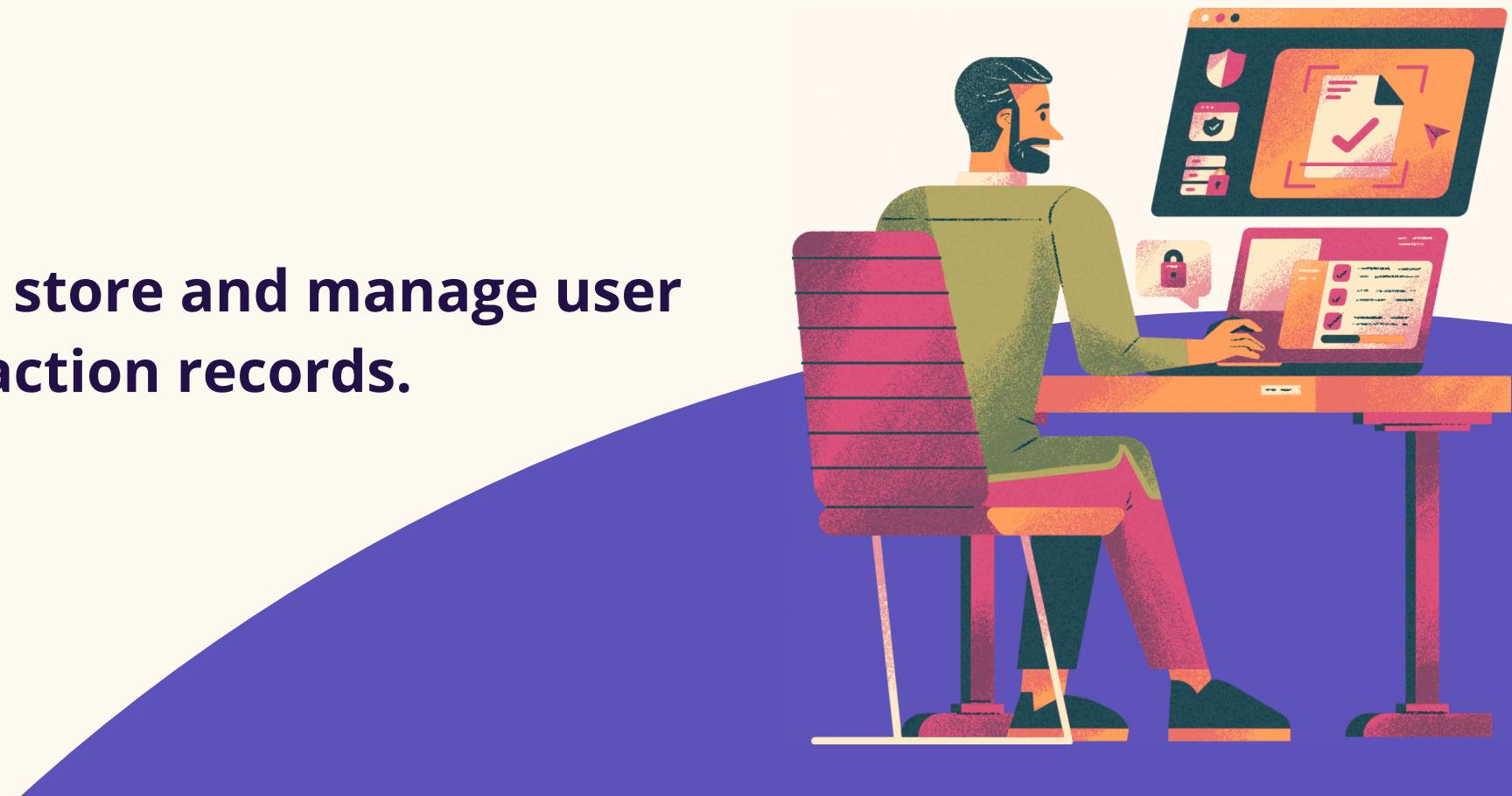
A frontend framework used to develop responsive and mobile-first web applications.

PHP

Used for server-side scripting and handling backend logic.

MySQL

A relational database management system to store and manage user data, course information, and transaction records.



SCOPE OF THE PROJECT

Students:

- View available courses with detailed information.
- Register for and purchase courses.
- Manage their course schedule.
- Update profile information.
- Check purchased courses and payment history.

Faculty:

- Manage and upload courses.
- Update course details.
- View the list of students who have purchased their courses.

Administrators:

- Monitor and manage user accounts.
- Generate reports on course enrollment, class rosters, and overall system usage.
- Ensure data integrity and maintain an audit trail for significant actions.



Objectives



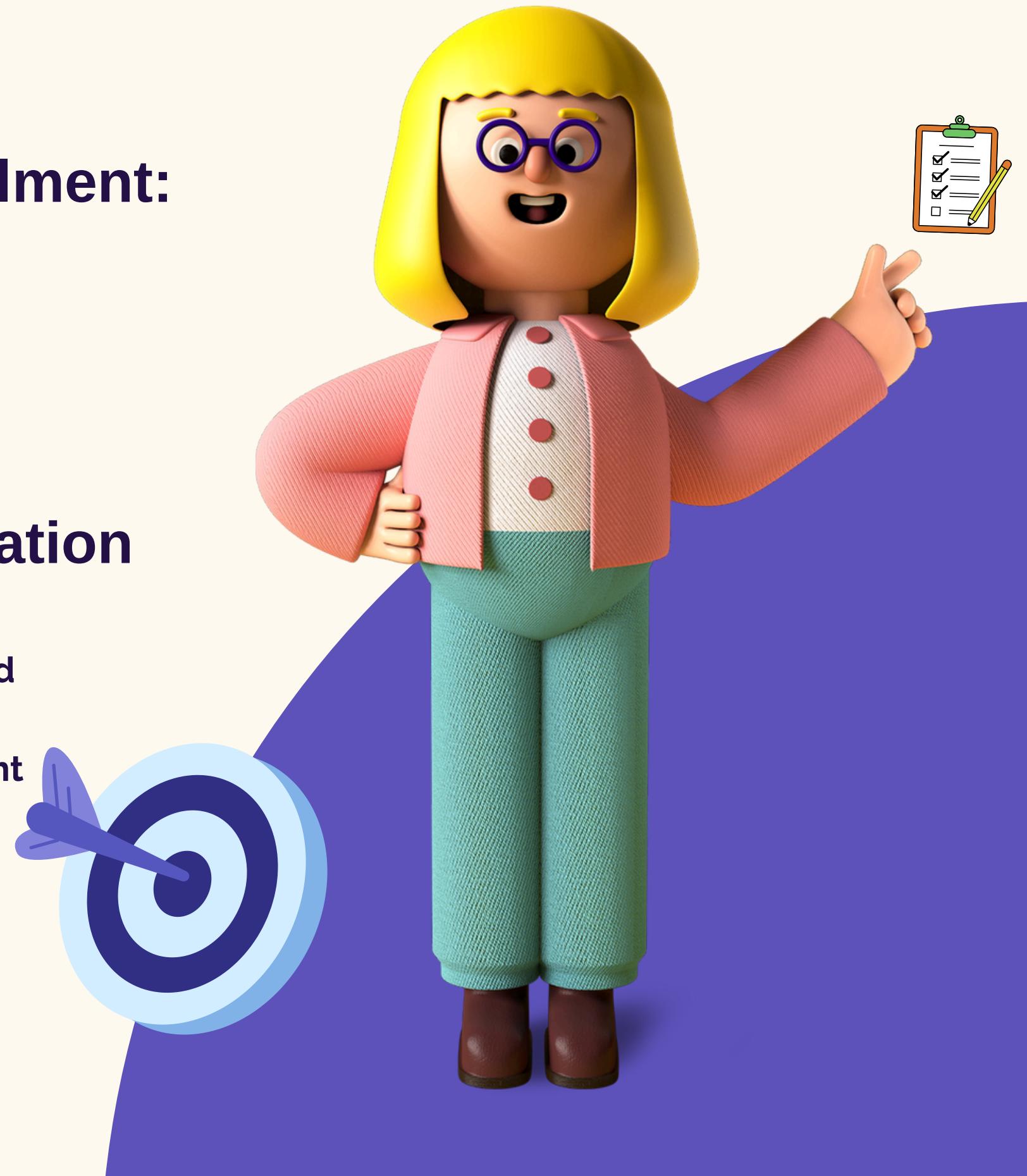
Facilitate Course Discovery and Enrollment:

- Enable students to easily browse and search for available courses with detailed information such as course name, instructor, schedule, and availability.
- Allow students to register for, purchase, and manage their courses seamlessly.



Enhance User Profiles and Personalization

- Provide students with a personalized dashboard to update profiles, view purchased courses, check payment history, and manage schedules.
- Enable faculty to upload, manage, and update course content while tracking student enrollments.



Objectives



Course Management:

- Allow faculty to create, update, and manage course details, including setting prerequisites and enrollment limits.
- Enable faculty to view the list of students enrolled in their courses and their progress.



Ensure Secure and Efficient User Authentication:

- user authentication mechanisms, including email verification, password recovery, and secure session management, to protect user data and prevent unauthorized access.



Responsive and Accessible Design:

- Create a responsive, mobile-friendly interface using Bootstrap, ensuring the platform is accessible and easy to use on various devices and screen sizes.



Challenges faced and how i solved them

Payment Integration with PayPal:



Challenges:-

The payment method was not starting correctly, and the API calls were not functioning as expected.



Solution :-

- Debugging API Calls: Checked the API endpoints and parameters to ensure they were correct.
- API Documentation Review: Revisited the API documentation to understand the required headers, authentication methods, and payload structure.
- Error Handling: Implemented error handling to capture and log any issues during the API call.
- Testing with Sandbox: Utilized the payment gateway's sandbox environment to test the integration before going live.





Problem-Solving Approach:

- Step-by-Step Debugging: Examined the code to identify any mistakes in the API call syntax or logic.
- Console Logging: Used console logs to trace the execution flow and identify where the failure occurred.
- Community Support: Reached out to developer forums and support communities to seek advice and solutions for common issues.
- Iterative Testing: Conducted multiple rounds of testing to ensure the payment method was fully functional and reliable.



Certificate Generation upon Course

Completion:



Challenges:-

The certificate template design was not displaying correctly; only the text was shown when using TCPDF library.



Solution :-

- JavaScript window.print(): Switched to using JavaScript's `window.print()` method for generating the certificate, which allowed for better control over the template design and ensured that the design elements were rendered correctly.



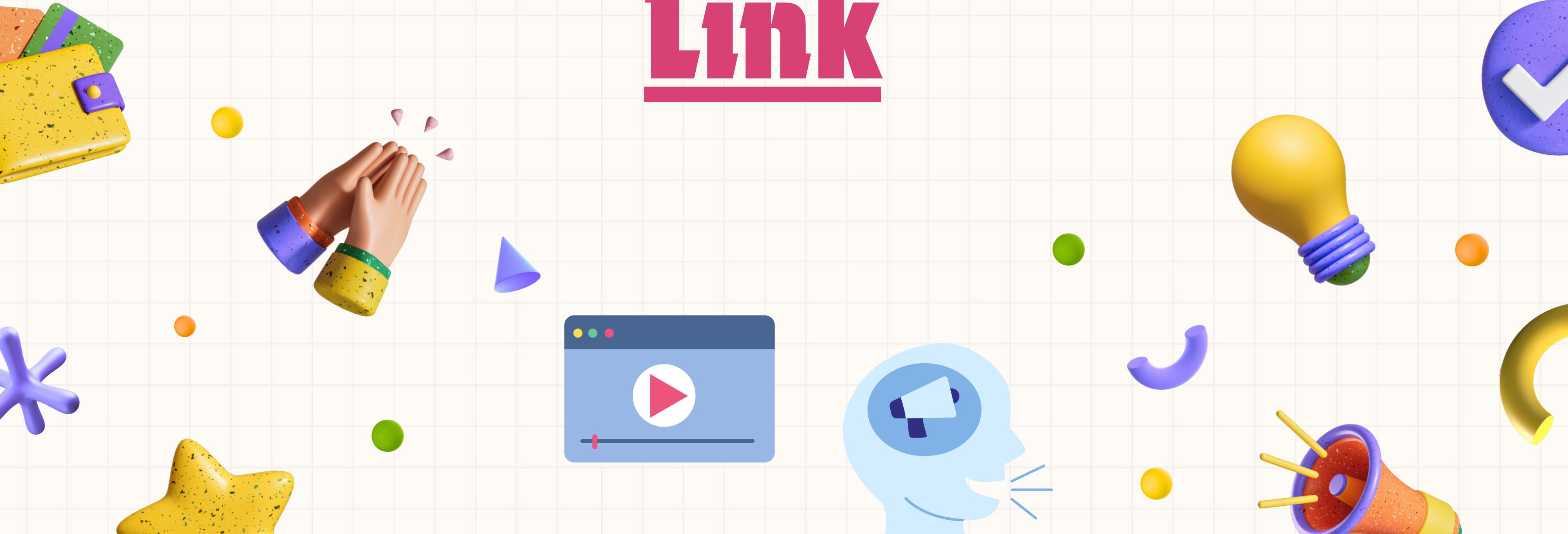


Problem-Solving Approach:

- Template Design Check: Verified the HTML and CSS of the certificate template to ensure there were no design issues.
- Alternative Method: Explored alternative methods for generating the certificate and found that `window.print()` was a more suitable solution for the design requirements.
- Testing on Multiple Browsers: Ensured cross-browser compatibility by testing the certificate generation on different browsers.
- User Experience: Focused on providing a seamless user experience by ensuring the certificate could be easily printed and saved as a PDF by the users.



Link



THANK YOU

