

SkillVine

*An online platform for managing,
evaluating & grading activity points*

Team Member

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- ▶ Project Guide: Prof. Aswathy B

Tools We Used

► Frontend

1) React

It is used to create our reusable UI components.

2) JsPDF **jsPDF**

It is used for our report generation.


► API Integration

1) Axios **A X I O S**

HTTP client for the browser used to make requests to a REST server.

Tools We Used

► Backend


1) Node js 

It is used to employ our run time environment.

2) Express 

It is our minimal and flexible backend framework.

► Database

1) Mongo DB 

We efficiently store and retrieve our data from Mongo DB.

2) S3 Bucket 

For our project, we utilised Amazon's S3 Storage services to store certificates in both PDF and other image formats.

Testing Done

- ▶ Black Box Testing:
 1. We have extensively employed black box testing methodologies from an end-user perspective with help of volunteers.
 2. Test cases were designed to test all cases of internal implementation details.
 3. Thorough testing involved comprehensive examination of user interactions and server API responses for various inputs.
- ▶ Postman Testing:
 1. We have utilized Postman to thoroughly test our APIs.

Bugs Fixed

- ▶ Front-end:
 - ▶ Bug: Inconsistent styling on smaller screens and inadequate layout adaptation.
 - ▶ Fix: Employed media queries and CSS layout techniques for responsive design.
 - ▶ Bug: Input validation problems.
 - ▶ Fix: Implemented client-side checks and error handling to enhance validation.
 - ▶ Bug: Image loading errors and slow performance.
 - ▶ Fix: Incorporated image compression, caching, and lazy loading features.

Bugs Fixed

- ▶ Back-end:
 - ▶ Bug: Delay in reading, writing to the database, and uploading certificates to cloud storage.
 - ▶ Fix: Implemented promise-based methods to handle these operations efficiently and asynchronously.
 - ▶ Bug: Non-institution members were able to log in to the website.
 - ▶ Fix: Implemented email validation techniques to verify if the email belonged to an institution member before allowing login access.

Conclusion

- ▶ The SkillVine project has achieved its objectives by delivering a reliable, efficient system that automates teachers' and students' tasks of Activity Points Register Management and certificate storing and tracking.

Future scope

- ▶ Add feature to provide comments on the credibility of certificates that students upload.
- ▶ Scaling the system for use by different colleges and multiple departments.
- ▶ Possibility of a new user with super privileges.

References

- ▶ Express, React, JsPDF Documentations.
- ▶ developer.mozilla.org, stackoverflow.com
- ▶ KTU Guidelines for assigning Activity Points

Thank You!