SCTR's Pune Institute of Computer Technology Dhankawadi, Pune

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WADL MINI PROJECT REPORT ON

" Internship Management System "

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ABSTRACT

The "Internship Management System" is a web-based application tailored to optimize the management of internships within educational institutions and organizations. This innovative project aims to streamline the entire process, from internship applications to evaluation and feedback, providing a centralized platform for both interns and supervisors.

At its core, the platform facilitates the submission of essential internship details, including intern profiles, project proposals, progress reports, and supervisor evaluations. Interns can conveniently access their profiles, track their project milestones, and ensure alignment with internship requirements and learning objectives.

Supervisors and mentors are granted comprehensive access to intern profiles within their respective departments or programs. This enables them to efficiently monitor intern progress, provide guidance, and offer timely feedback to foster professional growth and development.

Key features of the web application encompass secure user authentication, user-friendly interfaces for both interns and supervisors, database management for storing intern information and progress records, and robust communication tools to facilitate seamless interaction between interns and supervisors.

Overall, the "Internship Management System" serves as an invaluable tool in enhancing the efficiency and effectiveness of managing internships, fostering a collaborative environment between interns and supervisors to maximize the learning experience and professional development opportunities.

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INTRODUCTION

In today's dynamic educational landscape, the fusion of technology and academia has become paramount, reshaping conventional learning paradigms and administrative workflows alike. A pivotal facet of this evolution lies in the digitization and automation of administrative tasks, particularly in managing internships and academic records. Recognizing the imperative for streamlined processes in educational institutions, we introduce the "Internship Management System" – an innovative web application poised to revolutionize internship management.

The genesis of the "Internship Management System" project stems from the realization of the inherent complexities and inefficiencies entrenched in traditional internship management frameworks. In traditional settings, the coordination, tracking, and assessment of internships often entail cumbersome manual processes, prone to errors, delays, and communication gaps. The conventional reliance on paperwork and disjointed communication channels between interns and supervisors further exacerbates these challenges.

To surmount these hurdles, our team embarked on a journey to conceive and develop an avant-garde solution – the "Internship Management System." This web-based application is meticulously crafted to streamline every facet of internship management, providing a unified platform accessible to both interns and supervisors alike. Harnessing the robust capabilities of the MEAN (MongoDB, Express.js, Angular, Node.js) full-stack technology stack, our project endeavors to redefine the landscape of internship management, fostering efficiency, transparency, and collaboration.

Through this report, readers will gain profound insights into the pivotal role our project plays in modern educational management. Moreover, it serves as a testament to our unwavering dedication to leveraging technology as a catalyst for addressing real-world challenges in academia, thereby propelling institutions towards heightened efficiency and productivity in internship management.

LITERATURE SURVEY

Sr No.	Title	Authors	Year of Publication
1	Simplifying Web Application Development Using - Mean Stack Technologies	Bakwa D. Dunka, Edim A. Emmanuel, Dantala O. Oyerinde	January 2018
2	Mean Stack Web Development	Logesh, Karthika	May 2020
3	The MEAN Stack	Mr. Ninaad Nirgudkar1, Ms. Pooja Singh2	May 2017

IMPLEMENTATION DETAILS

Web technologies used: *MERN Stack*

Frontend development: *ReactJS :*

Backend development:

Nodejs: Used to develop the backend server and handle server-side operations such as routing, authentication, and database interactions.
MongoDB: Used as the database management system to store student information, submission records, and other relevant data.

Integration: ExpressJS: As the web application framework for Node.js to handle server-side operations and routing.

- **User Authentication**: Implementing authentication mechanisms such as JWT (JSON Web Tokens) for secure user authentication and session management.

- **API Endpoints**: Developing RESTful APIs using Express.js to handle requests and responses between the frontend and backend components of the application.

- **Database Integration**: Integrating MongoDB with the backend using Mongoose to perform CRUD operations (Create, Read, Update, Delete) on student data and submission records.

- **Data Validation**: Implementing validation logic to ensure the integrity and consistency of data input by users, preventing errors and maintaining data quality.

- **Error Handling**: Implementing error handling mechanisms to gracefully handle exceptions and provide informative error messages to users when issues occur.

- **Testing**: Conducting unit tests and integration tests to verify the functionality and reliability of the application components.

- **Deployment**: Deploying the application on a web server using platforms such as Heroku or AWS (Amazon Web Services) for accessibility to users.

Implemented an API endpoint to handle the uploading of teacher data files.
Utilized multipart/form-data content type for file uploads.
Defined the key teacherFile for the file field in the form data, ensuring consistency in the field name for proper handling on the server-side.
Accepted teacher data files in various formats, accommodating different file names for flexibility.

Created an API endpoint for uploading student data files, though specific details on the implementation are not provided. Presumably, similar to the teacher data file upload, but tailored for student data.

Implemented an API endpoint to retrieve details of a specific teacher identified by their email address.
Used the provided email address as a unique identifier to fetch the teacher's details from the database.

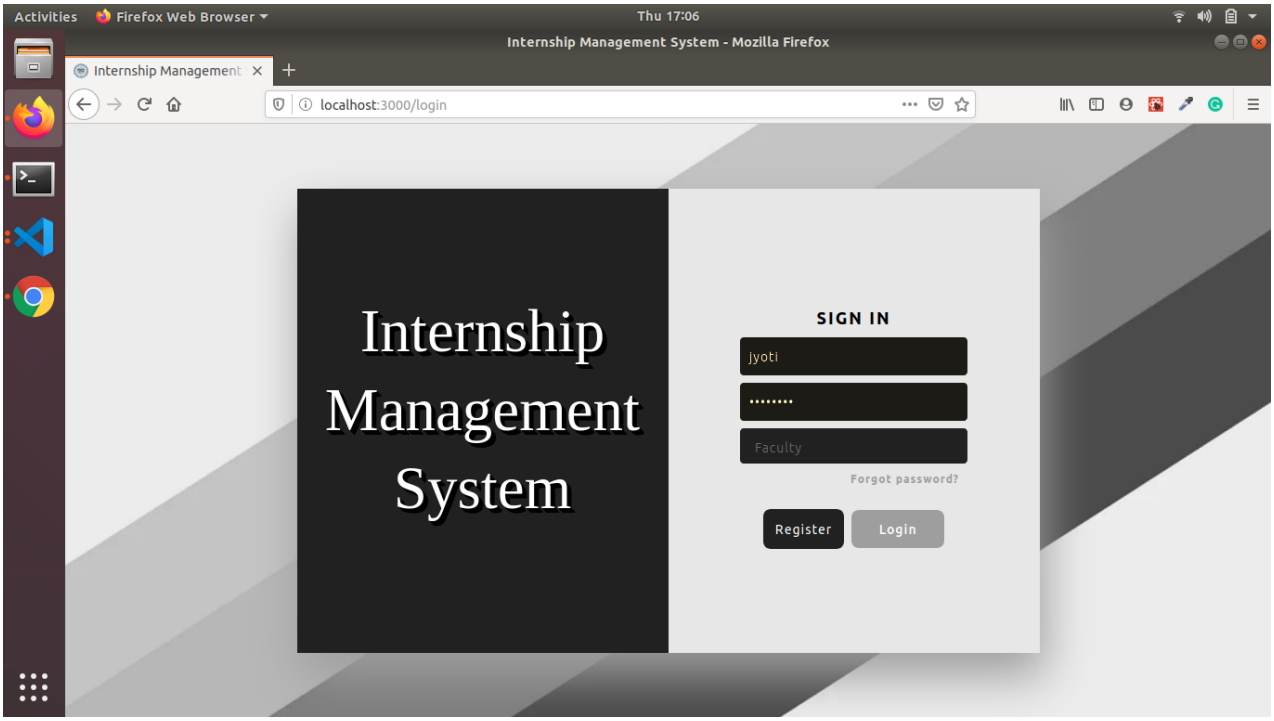
Developed an API endpoint to connect a teacher to students for a lab batch.
Utilized parameters such as teacherId, batch, and N to specify the teacher, lab batch, and relevant details for the connection.

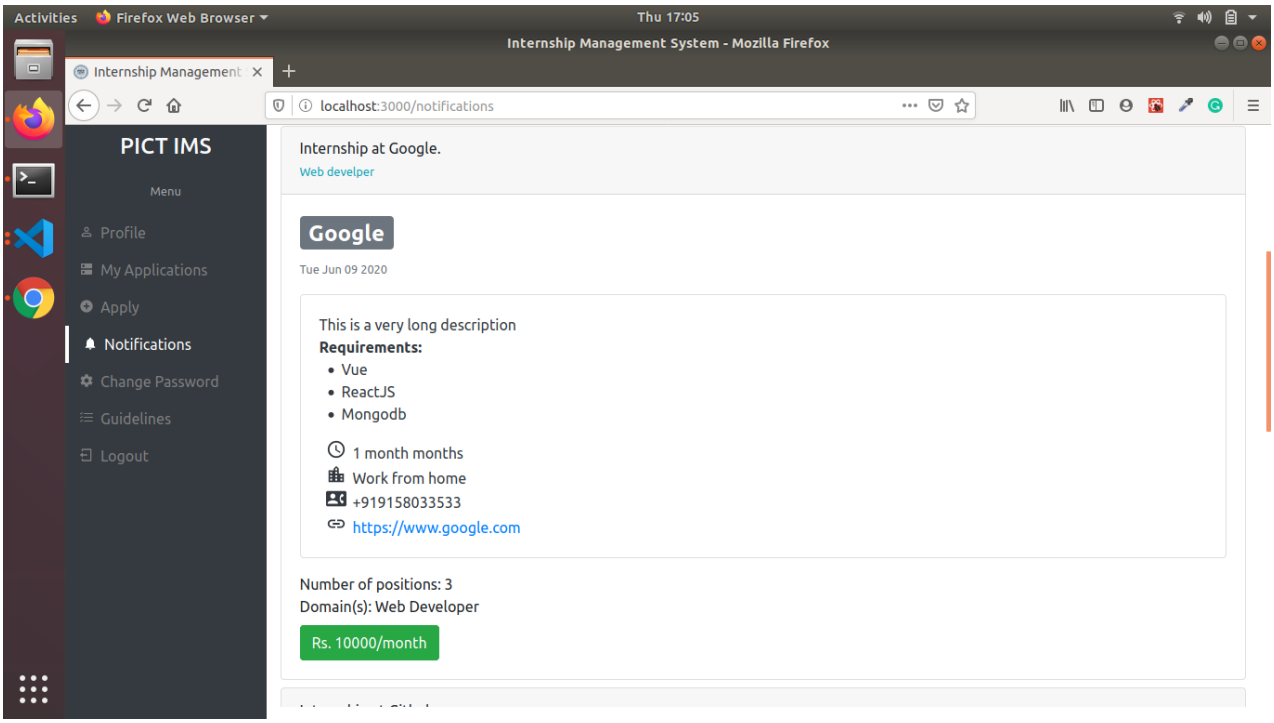
Implemented an API to associate a teacher with students in a theory class.
Used parameters such as teacherId and class to specify the teacher and class details for the connection.

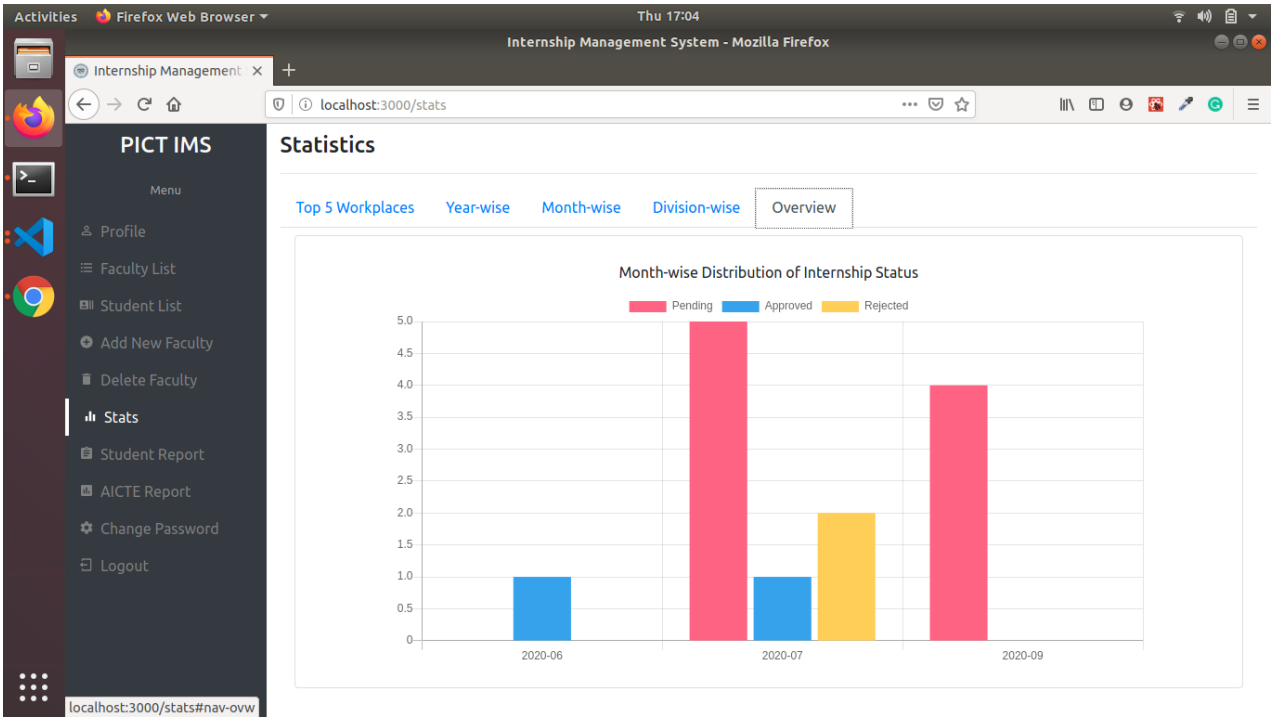
Developed an API to connect a course coordinator (CC) to students of a specific class.
Utilized parameters such as teacherId and cc to specify the course coordinator and their role in connecting with students.

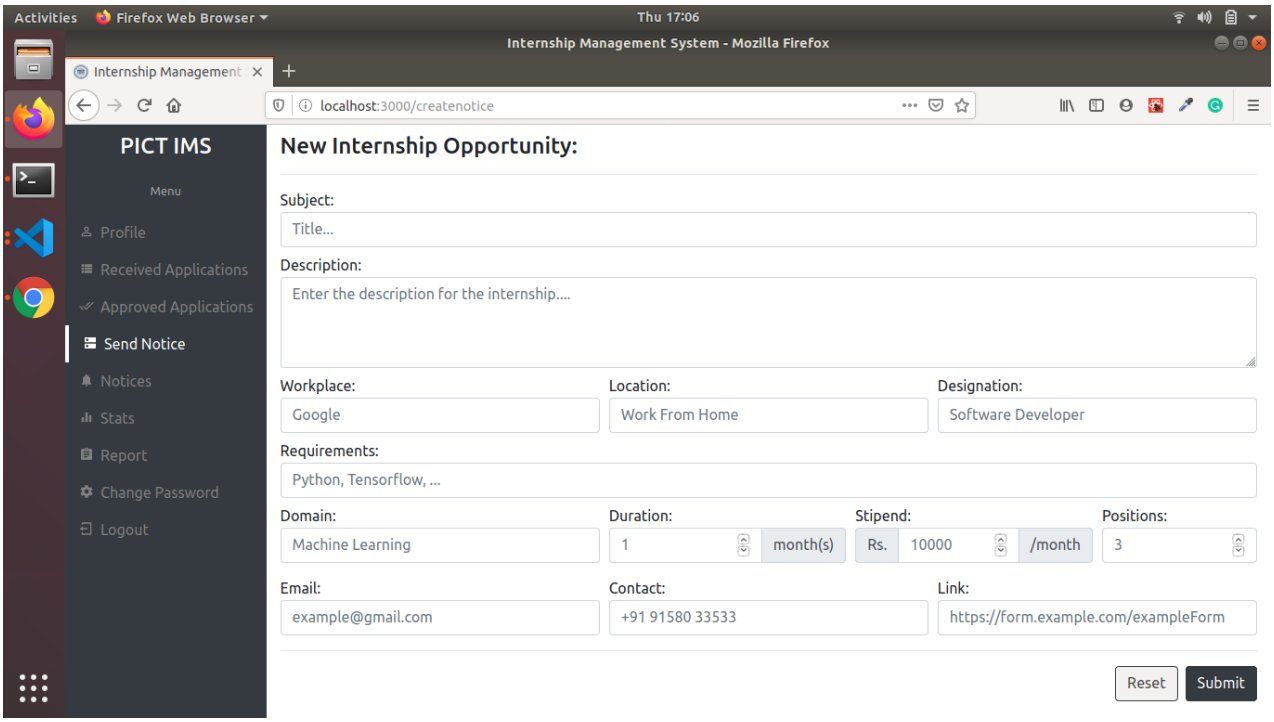
Implemented an API endpoint to retrieve details of a specific student identified by their roll number.
Utilized the provided roll number as a unique identifier to fetch the student's details from the database.

OUTPUT


Activities
Firefox Web Browser
Thu 17:06
Internship Management System - Mozilla Firefox
Internship Management
localhost:3000/login
Internship Management System
SIGN IN
jyoti
Faculty
Forgot password?
Register
Login


Activities
Firefox Web Browser
Thu 17:05
Internship Management System - Mozilla Firefox
Internship Management
localhost:3000/notifications
PICT IMS
Menu
Profile
My Applications
Apply
Notifications
Change Password
Guidelines
Logout
Internship at Google.
Web develper
Google
Tue Jun 09 2020
This is a very long description
Requirements:
Vue
ReactJS
Mongodb
1 month months
Work from home
+919158033533
https://www.google.com
Number of positions: 3
Domain(s): Web Developer
Rs. 10000/month


Activities
Firefox Web Browser
Thu 17:04
Internship Management System - Mozilla Firefox
Internship Management
localhost:3000/stats
PICT IMS
Menu
Profile
Faculty List
Student List
Add New Faculty
Delete Faculty
Stats
Student Report
AICTE Report
Change Password
Logout
Statistics
Top 5 Workplaces
Year-wise
Month-wise
Division-wise
Overview
Month-wise Distribution of Internship Status
Pending
Approved
Rejected
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
2020-06
2020-07
2020-09
localhost:3000/stats#nav-ovw


Activities
Firefox Web Browser
Thu 17:06
Internship Management System - Mozilla Firefox
Internship Management
localhost:3000/createnotice
PICT IMS
Menu
Profile
Received Applications
Approved Applications
Send Notice
Notices
Stats
Report
Change Password
Logout
New Internship Opportunity:
Subject:
Title...
Description:
Enter the description for the internship....
Workplace:
Google
Location:
Work From Home
Designation:
Software Developer
Requirements:
Python, Tensorflow, ...
Domain:
Machine Learning
Duration:
1
month(s)
Stipend:
Rs.
10000
/month
Positions:
3
Email:
example@gmail.com
Contact:
+91 91580 33533
Link:
https://form.example.com/exampleForm
Reset
Submit

CONCLUSION

The creation of the "Internship Management System" represents a holistic remedy to the intricacies surrounding internship management within academic environments. Through the adept utilization of the MEAN (MongoDB, Express.js, Angular, Node.js) full stack, we've engineered a resilient and intuitive web application poised to revolutionize the internship lifecycle, fostering seamless communication, accountability, and transparency.

Our platform, serving as a centralized hub accessible to both interns and supervisors, cultivates an environment conducive to harmonious collaboration and efficient submission management. By integrating cutting-edge features like file upload APIs, mentor-intern connection endpoints, and fortified authentication mechanisms, we've ensured a solution finely tuned to the multifaceted needs of educational institutions.

Furthermore, the success of our endeavor underscores the transformative impact of technology on traditional educational practices. Through the adept fusion of web technologies, we've showcased how innovation can catalyze efficiency, productivity, and ultimately, academic prowess. Looking ahead, we envision our project as a harbinger of forthcoming advancements in educational technology, inspiring novel methodologies for internship management and charting a course towards a more streamlined and collaborative educational ecosystem.

REFERENCES

https://www.linode.com/docs/guides/mean-stack-tutorial/

https://www.mongodb.com/languages/mean-stack-tutorial

https://medium.com/@alibhatti99/how-to-make-a-front-end-application-usingthe-mean-stack-535e1622860c

https://codecapsules.io/tutorial/getting-started-with-mean-stack-a-step-by-steptutorial/

https://nodejs.org/en/docs

https://expressjs.com/en/starter/installing.html