



Evaluate – Online evaluations made simple.

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Team Number – 42

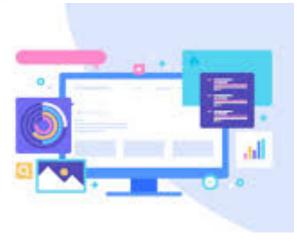
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Introduction



It was heartbreaking for almost every student to stay at home during this pandemic of Covid-19 and study and the worst of all was to give exams/assignments using tools which were not developed to take quizzes and exams.



It was equally difficult for teachers to adopt to this method of digital teaching. Many elderly teachers and professors found it challenging to Interact with these new technologies and taking an online evaluation was nightmare.



Our aim was to develop a platform which is user-friendly and transforms the way of taking quizzes, assignments, tests etc. for anyone new to technology.

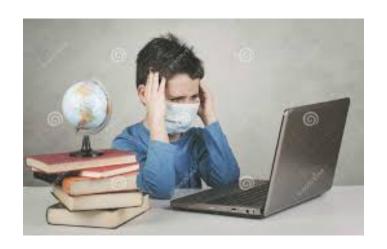


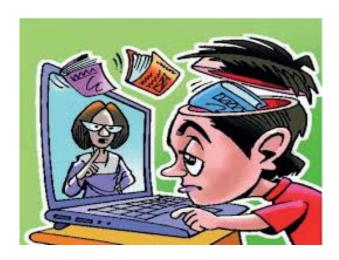
Problem Statement



The problem that existed in the available platforms were:

- These platforms were not developed with the purpose of giving/taking tests.
- Platforms were not intuitive, and User Interface was overly crowded.
- Instructors/teachers were not having multiple options for conducting tests/assignments in different formats.
- Platforms existing had bandwidth issues.
- Teacher and students who are new to online mode of learning found it difficult to interact with these platforms.





Proposed Solution



To tackle this problem our team produced the idea of creating a uniform platform where taking and giving online evaluations should not be a hassle anymore.

Here comes "Evaluate – Online Evaluations made simple". As the title of our platform portrays, this platform is optimized solely for conducting online evaluations.

It is possible due to its easy-to-use User Interface which is minimalistic, clutter-free and anyone can master the functionalities in seconds.



Technologies Used



We have used MERN stack and HTML and CSS to build this web application.

- M MongoDB, which was used as database
- E Express, which was used for backend development
- R React.Js, which was used front end development
- N Node.Js which is used in backend for server side.

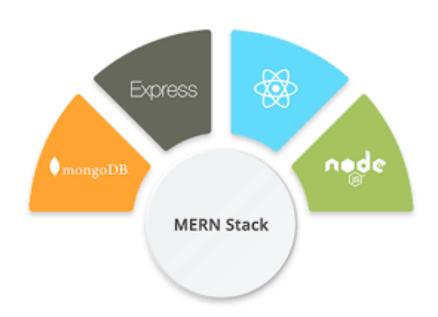
React.Js and Node.Js are libraries of JavaScript which are used for server-side development and building user interfaces, respectively.

VS Code was used a code editor.







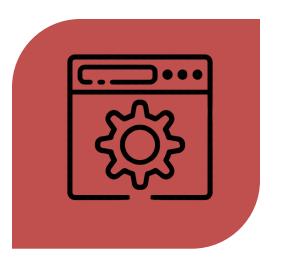


Tech Stack





Client Side



Server Side

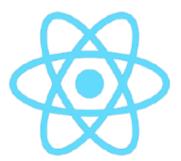
Client Side



<u>Figma - Figma is a design application with excellent design and prototype tools.</u> So in the initial few days we created a basic prototype for our web application so we can get our frontend design in place before going on with coding part.



<u>React - React JS is a JavaScript library used in web development to build interactive elements on websites. We choose React.js because to fulfill our project requirements, the demand was for a more dynamic website than a static one, so we decided to go with the industry standard.</u>



<u>CSS -</u> Cascading Style Sheets (CSS) is a simple mechanism for adding style to web components. We used this to give our website a more friendly UI components, pleasing to see and making it look more professional.



Server Side



<u>Passport JS</u> - Passport is an authentication middleware for Node.js. We have used it to create sign in for users with Google Auth to save time for user and to provide an extra layer of security.



<u>Express and NodeJS - Express</u> is a minimal and flexible **NodeJS** web application framework that provides a robust set of features to develop web and mobile applications. It facilitates the rapid development of **Node** based Web applications.



Express



<u>MongoDB</u> - MongoDB is a no-SQL database, that provides more powerful way to store and retrieve data throughout the application. We have used it to make our User's and Exam's databases/Schema for dynamic implementation of our project.

Project Features



Some unique that features make our platform standout are :-

- User only requires chrome browser and a stable internet connection to run our platform as it is not intensive.
- Uniform color scheme and button designs to make the UI easier to use.
- Teacher/instructors can make any type of questions like single option correct, multiple option correct, subjective type questions, questions with images whatever the situation demands.
- For Sign-In we are using Google-OAuth to make signing in process easier and to avoid creation of new accounts from user's point of view. It makes it easier for users to log-in and logout through their Google account.







User Interface Snapshots



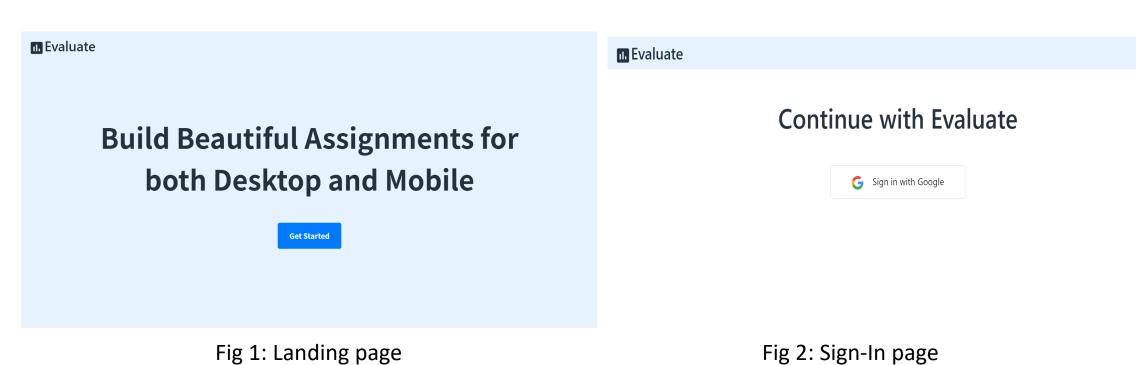


Fig 2: Sign-In page

User Interface Snapshots

Fig 3: Profile selection page



I Evaluate		■ Evaluate		
	Welcome to Evaluate!!	M Manish Sharma	Enter Code • Add	
	Select an option which describes you the best	S LOGOUT	Upcoming Submitted	
	Student - I plan on giving assignments and joining classes		Untitled	12th September 2020, 8:30 - 11:30 Start
	Teacher - I plan on scheduling assignments and managing class		Assignments Description Untitled2 Assignments Description	13th September 2020, 9:30 - 11:30 Start
	Continue		Untitled3 Assignments Description	15th September 2020, 8:30 - 11:30 Start

Fig 4: Student's Dashboard

User Interface Snapshots



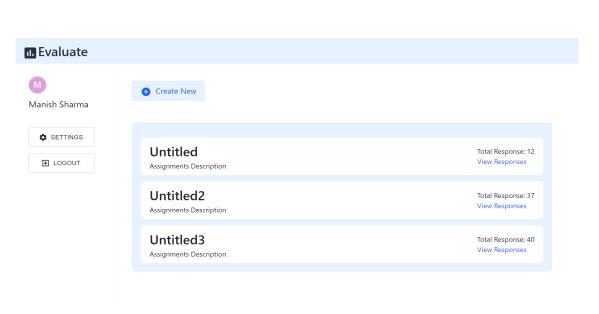


Fig 5: Teacher's Dashboard

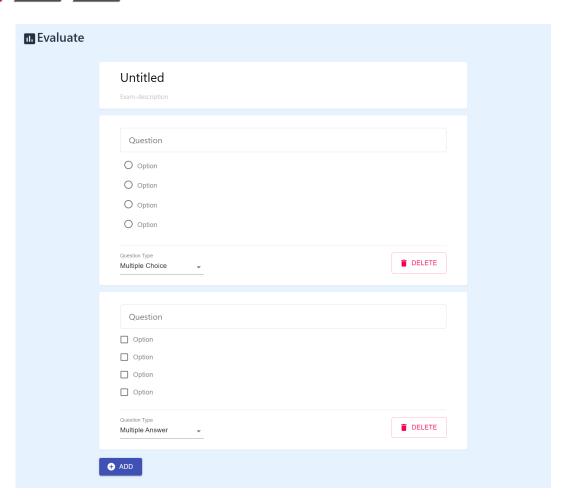


Fig 6: Quiz making/launching page

Conclusion



- After observing the loopholes present in current test/quiz taking platforms and analysing the solution we were able to achieve 60% of what we had kept as our final milestone.
- This venture still needs some tweaks in order to make it more robust.
- We got to learn various new technologies used to build these kind of platforms and hope that this innovation does add some value to our society.

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Future Work



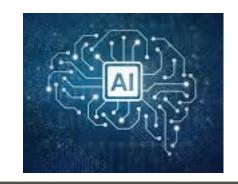
Future work includes :-

- To improve bandwidth issues in order to support multiple online users at a single time without any server crashing.
- To include separate timer for separate questions in order to reduce cheating issues amongst students.
- To include separate settings for every single quiz/assignment/test.
- Generation of a unique code every time a teacher launches a quiz/test so the students can easily enroll into the quiz/test.
- Make it optimized for every platform.
- All enabled supervision on students through camera in real time.











Thank You