

SIH INTERNAL HACKATHON 2024

PROBLEM STATEMENT TITLE : AI FOR DEVELOPER
PRODUCTIVITY: BACK-END DEVELOPEMENT

ORGANIZATION : NSUT

CATEGORY : SOFTWARE

DOMAIN BUCKET : SOFTWARE – WEB APP
DEVELOPMENT

TEAM NAME : CODE CRUSADERS

TEAM LEADER NAME : AKHILESH KUMAR

PROBLEM STATEMENT

EtherCalc

EtherCalc is a web spreadsheet.

Your data is saved on the web, and people can edit the same document at the same time. Everybody's changes are instantly reflected on all screens.

Work together on inventories, survey forms, list management, brainstorming sessions and more!

Create Spreadsheet

No sign-up, start writing instantly

SocialCalc, originally developed as part of the Social text platform, is a web-based spreadsheet application that allows collaborative editing and data manipulation. Despite its innovative approach to collaborative spreadsheets, SocialCalc has become outdated, and there is a growing need for a modern, scalable version that leverages contemporary web technologies and frameworks. By redeveloping EtherCalc using modern languages such as Node.js, Go, or Django, we can enhance its performance, security, and scalability, making it a more robust tool for collaborative data management.

ABOUT PROJECT

Our project aims to develop a modern version of SocialCalc using either Node.js, The goal is to recreate the core functionalities of SocialCalc, while also introducing new features and improvements that align with current web development standards. The resulting application will support real-time collaboration, be easily deployable, and provide a seamless user experience across different devices.

Some of the key features of our web-application:

1. Core Spreadsheet Functionality
2. Real-Time Collaboration
3. User Authentication and Access Control
4. Data Persistence and Security
5. Responsive User Interface

IDEA/APPROACH DETAILS

- ❑ We aimed to develop a social platform where different users can collaborate in real-time to work with spreadsheets
- ❑ From tools like undo, redo, cut, copy etc. to zoom in-out, we tried our level best to replicate the functionalities of Socialcalc
- ❑ The platform is majorly responsive to screen sizes and devices
- ❑ With the usage of modern technologies like MERN stack, websockets etc. It can handle large datasets and multiple concurrent users
- ❑ For data integrity and security, we had used MongoDB for database which allows user to access data even in case of system failure, hence your data is protected with us (once it's saved) and recoverable

TECHNOLOGY STACK



JavaScript & TypeScript: Project uses JavaScript and TypeScript programming languages for frontend and backend respectively

ReactJS: The frontend of this project is built using ReactJS (using `Vite`)

ExpressJS: The backend is built using the ExpressJS framework of NodeJS

Socket.io: It uses socket.io for WebSockets in order to provide live collaboration functionality

MongoDB: The Database used in this project is MongoDB

Tailwindcss: Tailwind for styling the frontend

Axios: for data fetching in Frontend



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☐ Rename sheet(s) after upload[illegible]

Edit Spreadsheets & collaborate others live.

Our platform allows you to make & edit spreadsheets while collaborating with others live. Simply make an account & get started.

Get started. →

Your dashboard

FILE NAME	FILE ID	CREATED
File 1	66640f9602e2b077e72d80d	2024-09-01T06:54:16.536Z
File 2	66640f9602e2b077e72d810	2024-09-01T06:54:22.470Z

Make file

File name...

Submit

File Permissions

☐ Allow everyone to edit these spreadsheets

SAVE FILE

After saving your changes will be **live** to collaborators!

File Home Insert Formulas Data View

General Calibri 11 B I S U A

A5 fx

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
1	Name	Class	Rollno																
2	Anshul	CSDA	1																
3	Akhilesh	CSDA	2																
4	Aryan	CSDA	3																
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CODE_CRUSADERS
USER INTERFACE

TEAM MEMBER DETAILS

» Team Leader :

AKHILESH KUMAR (BTECH –CSDA) II-YEAR

» Team Member 1 :

ANSHUL ANAND (BTECH –CSDA) II-YEAR

» Team Member 2 :

ARYAN (BTECH –CSDA) II-YEAR

» Team Member 3 :

ABDUL RAQEEB (BTECH –CSDA) II-YEAR

» Team Member 4 :

DIVYA (BTECH –CSDA) II-YEAR

» Team Member 5 :

ABHISHEK (BTECH –CSDA) II-YEAR





THANK YOU!