# Smart India Hackathon 2024

## Internal Hackathon

**Team name: Byte Me**

# Get To Know The Problem

**Project Title:**
AR/VR/3D Data Visualization Platform for EtherCalc.

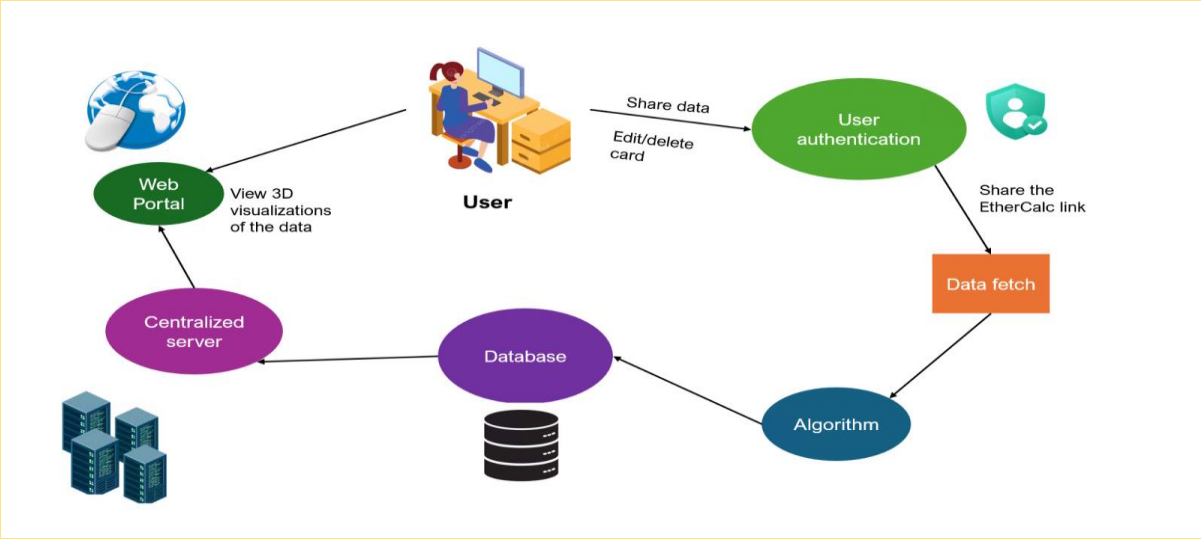
**Subtitle:**
Enhancing Spreadsheet Data Analysis with 3D Interactive Graphs.

**Presented by:** Byte Me

**Problem Statement:**
Innovating Data Visualization with AR/VR and EtherCalc Spreadsheets.

# Proposed Solution

**We propose a web application built with Django that allows users to visualize EtherCalc spreadsheet data using advanced 3D graphs. Users can log in, link their data, and interact with dynamic 3D scatter plots and elevation maps to gain deeper insights.**




# Features Overview

**A-User Authentication:**

Secure login system allowing users to save and manage their data cards.

**B-Data Card Management:**

Users can create, edit, and delete data cards that link their EtherCalc data to specific 3D visualizations.

**C-3D Graph Visualization:**

- ❑ Scatter Plot: Visualize three columns of data simultaneously in a 3D space.
- ❑ Group Scatter Plot: Group and compare data points across multiple dimensions.

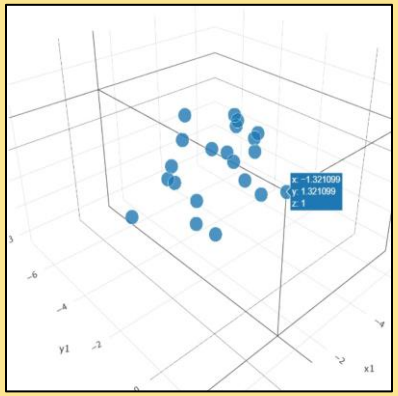
**D-Geographical Elevation Map:**

A highly interactive map that allows users to visualize elevation data or any geospatial dataset with advanced zoom and drag capabilities.

**E-Customization Options:**

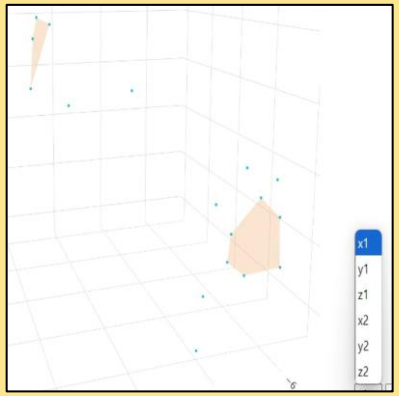
Users can select which columns to plot on different axes, adjust graph settings, and interact with the data in real-time.

# Unique Selling Propositions (USPs)



### Interactive 3D Visualization

•Generate and manipulate 3D scatter plots and elevation maps.
•Provides a more intuitive understanding of your data.

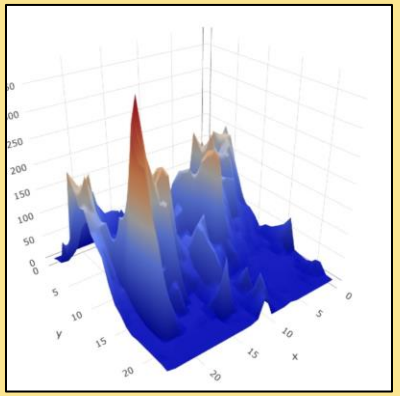



### Customizable Graphs

•Select specific columns from data to be plotted on various axes.
•Tailor visualizations to your specific needs.

### User Data Cards

•Create, store, and edit "data cards" linking EtherCalc data to visualizations.
•Enhances data management and collaboration.



### Geographical Elevation Maps

•Visualize geographical data with interactive, zoomable, and draggable elevation maps.
•Provides detailed geographic insights.

# BUSINESS MODEL

## Target Market

- 📊🔍 **Data Analysts & Researchers:** Advanced data visualization tools for in-depth analysis.
- 🎓📚 **Educational Institutions:** Supports teaching and research with advanced visualization.
- 🏢💼 **Businesses:** Enhances data-driven decision-making processes.

## Revenue Streams

- 🔓📈 **Freemium Model:** Basic visualization features are free. Premium subscription unlocks advanced features like geographical elevation maps and additional customization options.
- ⚙️🏢 **Enterprise Solutions:** Custom solutions for large organizations with specific needs, including white-label options.
- 🛒💵 **In-App Purchases:** Purchase additional templates, graph types, or data storage space.
- ☁️🔗 **API Access:** Charge for API access to integrate our 3D visualization tools into your platforms.

# Tech Stack


### Backend

**Django**: Python-based web framework for handling user authentication, data management, and backend logic.

### Frontend

**HTML/CSS**: For building the web interface and JavaScript: For dynamic content and user interaction.

**Plotly and D3.js**: Libraries used to create and render interactive 3D graphs.

### Database

**SQL**: Storing user data, data cards, and graph configurations.

### APIs & External Services

**EtherCalc API**: For fetching and integrating spreadsheet data into the web application.

# Team Member Details

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Degree: BTech Branch: CSDA Year: II

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**Team Member 3 Name: Rohit Singh Khundongbam**

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