

Note: Dear participants, please make a copy of this doc and delete these instructions. Do not request edit access on this doc iself.

# **C4GT DMP - Proposal Template**

Name	Shyam Pandey
Email ID	B23CS029@nitm.ac.in
Phone Number	9336537195
GitHub ID	https://github.com/Shyam-123pandey
Discord ID	https://discord.com/channels/1323336286546825306/ 1323336385192656976
Current occupation (Working Professionals - add current organization & years of exp)	Student
Education Details  (College Name - Degree Name and branch of engineering or other course/specialization)	NIT Meghalaya – BTECH (CSE)
Technical skills with level (Mention tech skills/languages known/UI-UX and level - Novice/Intermediate/Expert)	<ul> <li>Web Developer   ♥ DSA Problem Solver   ★</li> <li>Data Science Enthusiast   ♠ AI Lover   ♠</li> <li>Passionate</li> <li>Frontend Development</li> <li>HTML5, CSS3, JavaScript - ★ ★ ★</li> <li>(Expert)</li> </ul>



•	React.js (with Vite), Redux Toolkit, React Query			
	- ★ ★ ★ (Advanced)			
•	Tailwind CSS, Shaden UI, Material UI –			
•	Next.js – 🚖 🚖 ♠ (Intermediate)			
•	React Native (Expo) – 🌟 🌟 (Intermediate)			
I	Backend Development			
•	Node.js, Express.js – 🌟 🌟 🌟 (Advanced)			
•	MongoDB, Mongoose – ★ ★ ★ (Advanced)			
•	REST APIs, JWT Auth, Supabase –			
	★ ★ ★ (Advanced)			
I	Data Structures & Algorithms			
•	C++, STL - * * * * (Expert)			
•	Problem Solving (600+ DSA problems) –			
	$\bigstar \bigstar \bigstar \bigstar $ (Expert)			
•	Graph, DP, Trees, Greedy, etc. –			
	$\bigstar \bigstar \bigstar \bigstar $ (Expert)			
τ	UI/UX Design			
•	Figma, Responsive Design, Wireframing –			
	★ ★ (Intermediate)			
7	Tools & Platforms			
•	Git, GitHub – ★ ★ ★ (Advanced)			
•	VS Code, Postman, Vercel, Netlify –			
	★ ★ ★ (Advanced)			
•	Firebase, Stripe API – 🌟 🌟 (Intermediate)			
I	Data Science & AI (Beginner to Intermediate)			
•	Python, NumPy, Pandas, Matplotlib – 🌟 🌟 🚖			
	(Intermediate)			
•	Scikit-learn, Jupyter Notebook – 🌟 🌟			
	(Novice/Intermediate)			
•	AI/ML Fundamentals, Chatbot APIs – 🌟 🚖			
	(Novice)			



#### Title: InsightBoard - A Unified & Visual Experiment Tracker for Confident Decision-Making

#### Summary

Experiments are only as powerful as the insights they deliver. This project aims to empower users with a unified, interactive dashboard and enhanced detail views that clearly communicate when experiments have reached a steady state and what actionable takeaways exist. By combining advanced data visualizations, summary metrics, and decision-support indicators, we will enable users to confidently conclude or iterate experiments, ultimately improving experiment effectiveness and team productivity.

### **Project Detail**

# 1. Project Overview

## a. Understanding of the Project:

The project involves developing a centralized dashboard and enhanced detail view for monitoring ongoing and completed experiments. It must support visualization of experiment outcomes (e.g., lift, confidence intervals), provide decision cues like steady-state status, and allow users to filter and slice data effectively. Export capabilities and a clean, documented implementation are also expected.

#### b. Issues that Might Come Up and Support Needed:

- Ambiguity in decision rules: Defining how to detect steady-state or significance thresholds might need inputs from the IDInsight team.
- **Data availability and structure:** Mock data or real experiment datasets will be needed for testing and validation.
- Design clarity: Timely feedback on wireframes and UX choices will be crucial.

## c. Proposed Solutions:

- Work closely with the mentor/team to finalize decision heuristics.
- Use simulated data initially if real datasets are delayed.
- Share Figma wireframes early to align on UX and visual storytelling.

#### 2. Macro Implementation Details with Timelines

#### Milestone 1 (Week 1-2):

Requirement gathering and clarification



- Design mockups in Figma
- Set up React + Node.js/Express or Next.js project
- Prepare mock data and structure API contracts

#### Milestone 2 (Week 3-4):

- Build core dashboard layout: experiment list with filters
- Develop visualizations (Plotly/Chart.js) for key metrics
- Integrate API to fetch experiment data
- Implement experiment detail view with summary tables

#### Milestone 3 (Week 5-6):

- Add export functionality (PDF/CSV)
- Add indicators for steady-state, confidence intervals
- · Collect user feedback, test and refine
- Write documentation and testing (unit + integration)
- Polish for partner demo readiness

# Total Duration: 6 Weeks (flexible per DMP timelines)

- Milestone 1 (Week 1–2): Foundation Setup
- Study MIS export formats & define necessary data points.
- Build initial Google Sheets structure for manual data capture.
- Draft SOPs for data entry at school/block level.
- Set up Firebase/PostgreSQL auxiliary DB schema.
- Begin Apps Script/Python automation testing for syncing data.
  - Milestone 2 (Week 3–4): Core System + Pilot
- Finalize automation layer for real-time DB sync.
- Populate auxiliary DB with sample data from at least 2 schools.
- Complete student → class → subject → teacher mapping.
- Develop and publish initial dashboards (performance, workload).
- Collect pilot feedback from users (school/block admins).
  - Milestone 3 (Week 5–6): Optimization & Scale Readiness
- Refine dashboards and automation based on feedback.
- Add features like engagement alerts, data validation.
- Document setup, code, and SOPs for easy replication.
- Prepare demo showcasing end-to-end flow for district-level stakeholders.
- Create onboarding material for other schools/blocks.



## **Availability**

Number of hours available to dedicate to this project per week	5-6 hours
Do you have any other engagements that will require your time? (projects/internships)	

Share any other details about your availability clearly here- 5-6

#### **Personal Information**

<u>About Me:</u> I'm a passionate full-stack web developer and data enthusiast with a strong foundation in DSA and automation. I've built scalable ed-tech platforms using React, Firebase, and Python, and I enjoy creating smart solutions that bridge data and impact. I'm deeply interested in using technology to solve real-world problems, especially in the education space.

#### What is your motivation to apply for this project? Answer briefly in 5-10 lines.

I'm genuinely passionate about using technology to drive meaningful change in the education sector. This project aligns perfectly with my interests in ed-tech, automation, and data-driven decision-making. I'm excited about the opportunity to extend the Education MIS to capture real-time, actionable insights that can help improve student outcomes. Contributing to a government-backed initiative that impacts schools at the grassroots level feels purposeful and rewarding. With my experience in building full-stack systems, automating workflows, and creating dashboards, I'm confident I can make a tangible difference through this project while also learning from real-world challenges.



# Please mention if you have solved any issues/tickets for this or other C4GT projects: (Optional)

Link to to Issue	Resolution description in short	Link to pull request

Add more rows if required

# Previous experience/open source projects (Optional):

In this section you can mention your relevant work experience/projects (not just limited to open-source). You should mention experiences in this section if any with the relevant tech stack of the project (for product usability & design projects, the design software you used; like Figma; can be mentioned)

Project Name	Project Description	Links (if any)

Add more rows if required