# PLEDGE TO PROGRESS Sustainability Hackathon

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Your Team Name: FALCON

Your team bio :Believe

Date :24/04/2023



## **Problem Statement?**

To develop a vr based application to train and upskill coal mine workers to safely execute high risk tasks.

Why did you decide to solve this Problem statement?

We decided to solve this problem because this is a real world problem where many workers are losing their life due to inadequate training and this is also causing a hugh loss in the economy as well .using the technology of virtual reality the distasters that have occured in past can be avoided in the future by preparing our workforce for exactly the same types of scenarios that can rise again in fututre as well thus reducing the chances of such mishaps happening again



# User Segment & Pain Points Government of India(Coal india)

Which user /advertiser segment would be early adopter of your product & why?

This product will specifically be designed for coal India only so they are our only target client at the moment. They would likely use our product because we believe that using a bettr form of education using this new technology could actually benefit the workers of the coal mines and therefore there is agood chance that they would adopt our product



# Pre-Requisite Basic movement, basic reflexes, some vr knowledge is appreciable

What are the alternatives/competitive products for the problem you are solving?

No alternative available as of now



# Tools or resources Unreal Engine,Blender,Cloud



### **Any Supporting Functional Documents**

Present your solution, talk about methodology, architecture & scalability

#### Methodology

VR-based training can provide a safe and controlled environment for coal mine workers to practice and improve their skills, and it can be an effective way to supplement traditional classroom and on-the-job training.

#### **Architecture**

The architecture for a VR-based application to train and upskill coal mine workers would involve a combination of hardware, software, content creation, user interface design, data collection and analysis, and integration with learning management systems. The goal would be to create an immersive and engaging training experience that prepares workers for the realities of coal mining work and improves their safety and performance on the job.

#### **Scalability**

Virtual Reality (VR) can be a powerful tool to train and upskill coal mine workers, as it allows them to experience realistic scenarios without the risk of injury or damage to equipment.

➤ Customizable VR training modules, Remote accessibility, Gamification, Data analytics, Collaborative learning

By implementing these strategies, you can create a scalable VR-based application to train and upskill coal mine workers that meets their specific needs and is accessible from anywhere.



#### **Key Differentiators & Adoption Plan**

How is your solution better than alternatives and how do you plan to build adoption? Implementing a VR-based project to train and upskill coal mine workers can be an effective way to improve their knowledge and skills, while also reducing the risk of accidents and injuries. Here's an adoption plan that could help to successfully implement the project.

➤ Define the project scope and objectives, Develop the VR training modules, Pilot testing, Implement the project, Monitor and evaluate the project, Continuously improve the project

By following this adoption plan, a VR-based project to train and upskill coal mine workers can be successfully implemented, leading to improved safety, productivity, and overall job performance.



# GitHub Repository Link & supporting diagrams, screenshots, if any

Not any repository link



# **TECHGIG**

# **Thank You**

RAHUL KUMAR

**GUNJAN KUMAR CHOUHAN** 

**ANKIT PANDEY** 

**UTKARSH KUMAR SINGH** 

**UJJAWAL KUMAR BHADANI** 

