

AceHack 4.0

Problem Statement

Blockchain & Crypto

1. Decentralized Identity Verification

Description: Develop a blockchain-based identity verification system to eliminate centralized KYC verification.

2. Supply Chain Transparency

Description: Build a decentralized supply chain tracking system to verify product authenticity.

3. NFT-Based Digital Certificates

Description: Create a platform where academic and professional certificates are issued as NFTs for easy verification.

4. DAO for Student Grants

Description: Implement a decentralized autonomous organization (DAO) for transparent student scholarships and grants.

5. Blockchain-Powered Voting System

Description: Design a secure, transparent, and tamper-proof blockchain voting system.

Web & App Development

1. AI-Powered Personal Portfolio Builder

Description: Create an AI-driven tool that generates professional portfolios.

2. P2P E-Commerce Platform

Description: Develop a decentralized marketplace that directly connects buyers and sellers.

3. No-Code App Builder

Description: Build a platform where users can create applications without coding.

4. AI-Based Chatbot for Customer Support

Description: Develop an AI chatbot that automates customer service interactions.

5. Advanced E-Commerce with AR Integration

Description: Integrate AR technology into e-commerce platforms to allow users to virtually try on clothing and accessories.

Internet of Things (IoT)

1. Automatic Energy Saving System

Description: Develop an IoT-based monitoring system for efficient streetlight maintenance to reduce energy consumption and costs.

2. IoT-Based Smart Waste Management System

Description: Design an IoT-powered waste management system to track and manage overflowing garbage bins in smart cities.

3. IoT-Based Water Heater

Description: Build a smart water heater that prevents electrical hazards by automatically controlling the power supply when in use.

4. Smart Railway Wagons

Description: Implement an IoT-based system to optimize coal transportation by preventing underloading and overloading of railway wagons.

Augmented Reality (AR) & Virtual Reality (VR)

1. AR-Based Virtual Try-On for E-Commerce

Description: Develop an AR-based application that allows users to virtually try on clothing, accessories, or home decor before purchasing by scanning body dimensions or environment space.

2. VR-Based Virtual Learning Environment for Disabled Students

Description: Design a VR-based platform that provides an immersive learning experience for students with disabilities, using voice commands, gesture recognition, and haptic feedback.

3. AR-Based Interior Design and Room Visualization

Description: Create an AR application that helps users visualize furniture, wall colors, and decor in their space before purchasing by scanning room dimensions.

4. VR-Based Fire Safety and Disaster Management Training

Description: Develop a VR simulation platform to train individuals on fire safety, natural disaster response, and emergency evacuation procedures.

5. VR-Based Therapy for Mental Health Treatment

Description: Build a VR therapy solution to assist people experiencing stress, anxiety, or phobias by providing relaxing and therapeutic virtual environments.

6. VR-Based Remote Job Training and Onboarding

Description: Create a VR-based training platform for employees to acquire technical skills, collaborate, and conduct virtual meetings in an interactive environment.

Data & Generative AI

1. AI-Powered Data Storytelling for Business Insights

Description: Develop a Generative AI tool that converts raw business data into interactive reports, presentations, or chatbot-driven summaries for better decision-making.

2. Synthetic Data Generation for Bias-Free AI Models

Description: Build an AI-powered tool that generates realistic, diverse, and bias-free datasets while maintaining privacy and security standards.

3. AI-Augmented Data Cleaning and Preprocessing

Description: Develop an AI-based pipeline to automate data cleaning processes such as deduplication, anomaly detection, and missing value imputation.

4. Auto-Generating SQL Queries Using Natural Language

Description: Build a Generative AI assistant that translates natural language queries into SQL commands and generates visual reports.

5. Intelligent Data Augmentation for Small Datasets

Description: Create a Generative AI tool to synthesize realistic data points for improving model accuracy in niche industries like healthcare and finance.

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Cloud & DevOps

1. Conveyor Belt Fault Detection

Description: Build an AI-powered predictive maintenance solution for detecting faults in industrial conveyor belts before failures occur.

2. Smart Public Toilet System

Description: Implement an automatic self-cleaning public toilet with ultraviolet disinfection, motion sensors, and real-time availability tracking.

3. AI-Driven Cloud Cost Optimization

Description: Develop a tool that helps companies optimize cloud expenses dynamically.

4. Serverless DevOps Monitoring System

Description: Create a real-time cloud application monitoring tool using serverless architecture.

5. Multi-Cloud Deployment Manager

Description: Build a system that simplifies deploying applications across multiple cloud providers.

Cyber Security

1. E-Waste Monitoring System

Description: Create a software platform to track, collect, and recycle e-waste while ensuring compliance with environmental regulations.

Key Features:

- Real-time e-waste tracking
- Automated recycling notifications

2. Automatic Garbage Alerting System

Description: Design a tracking system to monitor and categorize plastic waste, sending alerts for high-waste generation.

Key Features:

- Waste sorting and categorization
- Automated alert notifications

3. AI-Based Phishing Detection

Description: Develop an AI-powered tool that detects phishing attempts in emails and messages.

4. Zero-Trust Access Control

Description: Implement a zero-trust cybersecurity model to prevent unauthorized access.

5. Decentralized Cyber Threat Intelligence

Description: Create a blockchain-powered platform for sharing cyber threat intelligence securely.

Open Innovation

AR & VR

You are allowed to make open innovations in AR & VR applications to improve user experiences and expand real-world use cases.

Data & Gen-AI

You are allowed to make open innovations in Data & Gen-AI solutions to optimize data processing, enhance automation, and improve decision-making.

Internet of Things (IoT)

You are allowed to make open innovations in IoT systems to create smarter, more connected environments for industries and everyday life.

Cyber Security

You are allowed to make open innovations in Cyber Security to strengthen digital defenses, mitigate cyber threats, and ensure secure online interactions.

Cloud & DevOps

You are allowed to make open innovations in Cloud & DevOps to enhance scalability, optimize cloud resources, and improve software deployment.

Web & App Development

You are allowed to make open innovations in Web & App Development to build more interactive, user-friendly, and intelligent digital experiences.

Blockchain & Crypto

You are allowed to make open innovations in Blockchain & Crypto to improve transparency, decentralization, and security in digital transactions and governance.