Project 1: ExpressionTracker:SentimentAnalysisforDyslexicKidsDuringGameplay

	Content
Project Title	ExpressionTracker:SentimentAnalysisforDyslexicKidsDuringGameplay
Category	Healthcare
Problem Statement	JoyWithLearning is a company that aims to develop a system that performs sentiment analysis on videos of dyslexic children while they play educational games designed specifically for them. By leveraging computer vision techniques, the system will automatically detect and analyze facial expressions to assess the children's emotional states during gameplay. This analysis will help in understanding how different game elements impact their emotions, allowing for the optimization of game design to better support their learning and emotional needs.
Tech Stack	MERN with DL
Max Groups	7

Project 2: JewelryDesignPatternGeneration

	Content
Project Title	JewelryDesignPatternGeneration
Category	Retail
Problem Statement	Jewelry design is a complex art form that combines aesthetics, craftsmanship, and material science. Traditionally, creating unique jewelry patterns requires extensive expertise and creativity. With the advent of DL, there is an opportunity to augment the design process by leveraging AI's ability to generate intricate and diverse patterns. This paper presents a novel approach to using DL for generating jewelry design patterns, aiming to enhance creativity, efficiency, and customization in the jewelry industry.
Tech Stack	MERN with DL
Max Groups	7

Project 3: EnhancingBlogContentCreationwithAI-PoweredTextGeneration

	Content
Project Title	EnhancingBlogContentCreationwithAI-PoweredTextGeneration
Category	Social Media
Problem Statement	In the digital age, content creation for blogs has become a crucial aspect of personal branding, business marketing, and information dissemination. However, consistently generating high-quality, engaging content can be a significant challenge for bloggers, content creators, and marketers. This challenge is compounded by the need for creativity, originality, and the ability to maintain a steady flow of new posts to keep the audience engaged.
Tech Stack	MERN with DL
Max Groups	7

Project 4: AI-DrivenPlantDiseaseDetectionSystem

	Content
Project Title	AI-DrivenPlantDiseaseDetectionSystem
Category	Agriculture
Problem Statement	Agriculture plays a crucial role in the economy of a nation, providing a livelihood to a significant portion of the population. However, plant diseases pose a major challenge to agricultural productivity, leading to significant crop losses and affecting the income of farmers. This project focuses on identifying plant diseases to prevent the spread of infection and reduce losses. By making use of a CNN-based model, this project identifies plant diseases using leaf images, helping agricultural scientists and agriculturists suggest remedies. The website will connect to the CNN model using API calls to perform these diagnoses. The project Website should have following features (i) Home page (ii) Role based Authentication (iii) Upload and Diagnostic page (iv) Results page (v) History page (vi) FAQ page (vi) Feedback (vii) Interactive Plant database for disease and treatment information etc. After completing the above, students can implement one or more of the following Advance Features (a) Blog/Resources Page (b) Live Chat Support (c) Mobile App Integration (d) Direct Model Interaction: Load and interact with the model without using an API interface, set up the model parameters for optimum values, and deploy it for inferencing.
Tech Stack	MERN and Deep Learning
Max Groups	7

Project 5: Multi-LevelFaceRecognitionandCrowdAnalysisSystemUsingDeepLearningandMERN

	Content
Project Title	Multi-LevelFaceRecognitionandCrowdAnalysisSystemUsingDeepLearningandMERNStack
Category	Image Processing
Problem Statement	1. Individual Person Authentication Design a system using deep learning to capture and store multiple images of an individual in a MongoDB database. Implement a Convolutional Neural Network (CNN) for face recognition that can accurately identify and authenticate the person using these stored images. The system should handle variations in facial expressions, lighting conditions, and angles. This solution will be integrated into a MERN stack application for secure access control. 2. Group Authentication Develop a robust face recognition system using deep learning, capable of identifying and authenticating a group of isolated individuals in a single image. Utilize MTCNN for face detection and a pre-trained model such as FaceNet or ArcFace for feature extraction, storing the data in a MongoDB database. Implement this functionality within a MERN stack application to verify the identity of attendees in small to medium-sized gatherings, ensuring authorized access and attendance tracking. 3. Large Gathering Face Counting Create a scalable solution with deep learning to count the number of faces in large gatherings using a MERN stack application. Employ advanced face detection algorithms like YOLO for real-time detection and MCNN (Multi-column Convolutional Neural Network) for high-density crowd counting . These models will handle high-density crowds and provide accurate face counts in real-time. This technology will aid in crowd management, safety monitoring, and gathering statistical data on crowd sizes.
Tech Stack	MERN and Deep Learning
Max Groups	7

Project 6: IoTbasedVoiceenabledHome/Office/Hotels/Outdooretc.automationwhicheasesourday

	Content
Project Title	IoTbasedVoiceenabledHome/Office/Hotels/Outdooretc.automationwhicheasesourday-to-daylife.
Category	IOT
Problem Statement	Today people are looking at ways and means to better their lifestyle using the latest available technologies. A home/office/hotel/outdoor automation system is one such technology that will monitor and control attributes such as lighting, entertainment and security system, appliances such as access control and alarm systems. The task is to develop an automation system integrating control of as many appliances as possible and monitoring their control.
Tech Stack	MERN, Edge impulse
Max Groups	7

Project 7: SignatureVerificationSystemUsingMERNandDeepLearning

	Content
Project Title	SignatureVerificationSystemUsingMERNandDeepLearning
Category	Finance
Problem Statement	Develop a web-based application that verifies cheque signatures against stored signatures using Deep Learning for enhanced security and accuracy. The system will leverage pre-trained deep learning models, fine-tuned for the task of signature verification, to ensure high accuracy and robustness.
Tech Stack	MERN and Deep Learning
Max Groups	7

Project 8: IPLCricketMatchPredictionSystemUsingMERNStack,MachineLearning/DeepLearning

	Content
Project Title	IPLCricketMatchPredictionSystemUsingMERNStack,MachineLearning/DeepLearning
Category	Analytics
Problem Statement	Develop a web application to predict outcomes of IPL cricket matches using historical match data. The system will use the MERN stack for the web application and integrate Machine Learning (ML) and Deep Learning (DL) models for the prediction functionality.
Tech Stack	MERN and Deep Learning
Max Groups	7

Project 9: AIFarming

	Content
Project Title	AIFarming
Category	Agriculture
Problem Statement	AI could become a master gardener, perpetually monitoring and fine-tuning every growth stage in the farm, from seed selection to harvest and beyond. It can help adjust farming practices in real time to climatic shifts, ensuring optimal crop health and yield. Crop yield prediction is an essential task for the decision-makers at national and regional levels for rapid decision-making. An accurate crop yield prediction model can help farmers to decide on what to grow and when to grow.This mobile app uses ML/DL techniques for crop yield prediction,crop recommendation and mapping the satellite view crop images with the corresponding ground view crop images.
Tech Stack	ReactNative/ Flutter, Firebase,ML/DL
Max Groups	2

Project 10: SmartFashion

	Content
Project Title	SmartFashion
Category	Fashion Tech
Problem Statement	The global fashion and clothing industry is one of the largest industries in the world.Fashion trend forecasting is the process of predicting possible future fashion trends.In the current digital era, AI is being used to accurately predict fashion trends using different types of data.AI Trend prediction can also be used to reduce wastage in the fashion and clothing sector by designing clothes people would actually want to wear. This web app predicts the fashion trends and build a GAN to generate new fashion images.The generated images should capture the essential features of various fashion items, such as dresses, shirts, pants, and shoes.
Tech Stack	Bootstrap, MERN,ML/DL
Max Groups	2

Project 11: NoiseAI

	Content
Project Title	NoiseAI
Category	Urban Planning
Problem Statement	The number of vehicles in urban areas has significantly increased over the years as a result of population concentration in urban areas. This has resulted in an increased noise disturbance caused by road traffic, especially in areas where the traffic is high.A reliable and accurate method for the estimation of vehicular traffic noise is therefore essential for creating a healthy noise-free environment.This mobile app applys time series forecasting techniques to predict the traffic noise level and also classify urban traffic sounds by using deep learning.
Tech Stack	ReactNative/ Flutter, Firebase,ML/DL
Max Groups	2

Project 12: AIVideoGames

	Content
Project Title	AIVideoGames
Category	Gaming
Problem Statement	Artificial Intelligence has been a rising source for video games for years now.AI and game development are growing through each other. It needs to know how a player feels and what a player does during the play.AI is a major concept in a lot of games.It is not just about games and more about creating more responsive, adaptive, and challenging games through the use of artificial intelligence.This project aims to develop an unreal video game by using user control buttons,voice command control,webcam hand gesture control by using DL.
Tech Stack	Unreal, voiceSDK, DL
Max Groups	1