RNS INSTITUTE OF TECHNOLOGY

(AICTE Approved, VTU Affiliated and **NAAC 'A+'**Grade Accredited)
(**UG programs** – CSE,ECE,ISE,EIE and EEE are Accredited by **NBA** up to 30.6.2025)

Problem Statements for Web Development

1) Build a web-app that connects IT consultants with businesses looking for various technology solutions, streamlining the matching process and reducing costs for both parties.

2) Create a university management web application with minimum functionality like department & majors, student registrations, courses & curriculum roll-out, course registrations, president and dean dashboards etc.

3) Create a University Alumni business/professional network web app. Alumni professionals and entrepreneurs should be able to register their businesses or their profiles to network, market their businesses, seek help/mentorship and referrals and collectively grow their businesses.

4) Create a web application with features like User Registration and Authentication, Expense Tracking, Budget Management , Financial Insight, Notifications and Reminders , User-Friendly Interface etc that allows users to track their personal finances and manage their expenses effectively.

5) Develop an engaging side-strafing game that can be played on a web platform. The game should provide players with an immersive experience, challenging them to navigate through dynamically changing obstacles while incorporating elements of strategy, precision, and timing.

Domain coordinator **: R Tushar**

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Problem Statements for AI & ML

1)Matching Candidate Profiles with Job Requirements based on Keywords

You are tasked with developing a system that matches a set of keywords representing an employer's job requirements with the resumes of candidates. The objective is to identify the resumes that contain the corresponding keywords from the job requirements, indicating a potential match between the candidate profile and the job profile.

2) Develop an advanced AI system that possesses the ability to recognize and deliberately generate mistakes in calculation

Develop an AI system that intentionally generates mistakes in calculations while also predicting and eliminating potential errors or threats in different contexts. The system aims to improve users' problem-solving skills by simulating human-like errors and providing proactive error detection and correction mechanisms.

3) Cyber Bullying Detection in Twitter

The objective is to develop innovative algorithms and models that can accurately detect instances of cyber bullying based on the analysis of user interactions, content, and context.

4) Medical Report Analysis using NLP

Create an AI-based disease detection web app, where a doctor can upload medical data/images (like x-ray/CT scans) to detect the probability of certain diseases using image recognition and ML algorithm.

5) Accident Detection using Location, Advanced NLP and ML methods

The aim is to develop innovative solutions that leverage artificial intelligence, machine learning, and natural language processing techniques to detect and respond to accidents in a timely and effective manner. Accidents can occur on roads, in workplaces, or in public spaces, and prompt response is crucial to minimize damage, injuries, and loss of life.

Domain coordinator **: Shodhan Shetty**

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Problem statements for Web3/Blockchain

1) Tokenized Asset Management

Develop a platform that allows users to tokenize and manage various real-world assets, such as real estate, art, or intellectual property, on the blockchain, facilitating ownership transfer and fractional ownership.

2) Decentralized Finance (DeFi) Aggregator

Create a tool that aggregates data from different decentralized finance protocols, providing users with a comprehensive overview of available lending, borrowing, and investment opportunities across multiple platforms.

3)Governance Mechanisms for Decentralized Organizations

Design a governance framework or mechanism that enables decentralized organizations to make transparent and efficient decision-making processes, allowing token holders to participate in voting and decision-making.

4) Blockchain-based Voting System

Build a secure and transparent voting system using blockchain technology, allowing for verifiable and tamper-proof voting processes for elections, polls, or decision-making within organizations.

5) Decentralized Payment Application

Create a decentralized payment application with a cryptocurrency like Cardano, providing a secure and fast way to make transactions without relying on traditional financial institutions..

Domain coordinator **: Subramanya Rao**