Consulting & Analytics Club
IIT Guwahati

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Round 1- Notebook submission for their model, along with a short 3-4 slide ppt about problem statement identification and expected outcomes.

Round 2- After shortlisting based on round 1, presentations will be taken to finalize the winners

Important Points:
The datasets provided are merely starter datasets, and can be complemented with others.

Dataset Link: https://drive.google.com/drive/folders/1Zka5PLeD624VQ7fEtTSOrjlP2Sb9tEw9W?usp=sharing

Problem Statements

1)Banking & Finance –

Key Focus Areas

Credit Risk Assessment: Develop models for assessing credit risk using machine learning and predictive analytics.

Fraud Detection and Prevention: Implement advanced algorithms for detecting and preventing fraudulent activities in financial transactions.

Algorithmic Trading and Market Analysis: Utilize AI for algorithmic trading strategies and market trend analysis.

Personalized Financial Planning: Provide personalized financial advice and planning services based on individual customer profiles and goals

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Problem Statements

2)Healthcare –

Key Focus Areas

Healthcare Analytics for Patient Care: Utilize data analytics to improve patient outcomes, optimize treatment plans, and enhance healthcare delivery.

Predictive Modeling for Disease Prevention: Develop models to predict disease outbreaks and identify at-risk populations for proactive intervention.

Clinical Decision Support Systems: Implement AI-driven systems to assist healthcare professionals in making informed decisions.

Healthcare Resource Optimization: Optimize resource allocation, such as hospital beds and staffing, based on predictive analytics.

Personalized Medicine: Use genetic and patient data to personalize treatment plans and improve patient care outcomes.

https://opendatascience.com/15-open-healthcare-datasets-2024-update/

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Problem Statements

3)Travel & Hospitality –

Key Focus Areas

Personalized Customer Experience: Enhance guest experiences through personalized recommendations, customized offers, and tailored services.
https://www.kaggle.com/c/expedia-hotel-recommendations/data

Revenue Management and Pricing Optimization: Implement dynamic pricing strategies & revenue management techniques based on demand forecasting & market trends.
https://insideairbnb.com/get-the-data/

Operational Efficiency: Implement AI-driven systems to assist Optimize operational processes such as booking management, housekeeping, & guest services through data-driven insights.

Customer Sentiment Analysis: Analyze guest feedback and sentiment to improve service quality and guest satisfaction.

https://www.kaggle.com/datasets/thedevastator/booking-com-hotel-reviews (Way Better)
https://www.kaggle.com/datasets/andrewmvd/trip-advisor-hotel-reviews

Predictive Maintenance for Facilities: Implement predictive maintenance models to reduce downtime and enhance the maintenance of facilities and equipment

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Guidelines

- Choose a problem for your team based on industry research
- Select a vertical & up to 2-3 focus areas within the vertical
- Define the problem(s) that you want to solve based on the vertical and focus area(s)
- Define the objectives to be met and outcomes to be achieved
- Use the datasets given /add to them/ build your own to solve the problem