Assignment – 1

Problem Statements

Date – 02-02-2025

E-Commerce:

1. Cart Abandonment: Many users add products to their cart but do not complete the purchase, leading to revenue loss. How can an AI-driven system personalize incentives to improve conversion rates?
2. Fake Reviews & Ratings: The prevalence of fake reviews misleads customers and impacts trust. How can a platform effectively detect and remove fraudulent reviews?
3. Logistics Optimization: Inefficient order fulfillment and last-mile delivery increase costs and delivery times. How can predictive analytics optimize logistics and warehouse management?

Manufacturing:

1. Predictive Maintenance: Unexpected machine failures lead to downtime and high repair costs. How can IoT and AI be leveraged to predict failures and schedule preventive maintenance?
2. Supply Chain Disruptions: Sudden disruptions in the supply chain affect production efficiency. How can blockchain or AI improve real-time visibility and risk management in supply chains?
3. Product Quality Control: Manual inspections are time-consuming and prone to errors. How can automated computer vision systems improve quality assurance?

Banking:

1. Fraud Detection: Increasing digital transactions have led to more fraud cases. How can AI-driven anomaly detection improve real-time fraud prevention?
2. Personalized Financial Services: Customers struggle to find financial products suited to their needs. How can AI-driven recommendations enhance customer engagement and satisfaction?
3. Loan Default Prediction: Banks face losses due to bad loans. How can machine learning models improve credit risk assessment?

Healthcare:

1. Patient Data Security: The rise in cyber threats puts sensitive patient records at risk. How can blockchain improve healthcare data security and privacy?
2. Appointment Scheduling Efficiency: Overbooking and no-shows cause inefficiencies in patient care. How can AI-powered scheduling optimize hospital resource allocation?

Finance:

1. Risk Management in Investments: Investors struggle with market volatility and risk assessment. How can AI models provide better risk analysis and portfolio recommendations?
2. Regulatory Compliance: Financial institutions face challenges in staying compliant with changing regulations. How can automation streamline compliance and reporting processes?

Transport:

1. Traffic Congestion: Cities face increasing traffic congestion, causing delays and pollution. How can AI and IoT-based smart traffic management improve urban mobility?
2. Fleet Management: Logistics companies struggle with inefficient vehicle routing and maintenance. How can AI-driven predictive analytics enhance fleet efficiency?
3. Public Transport Accessibility: Many areas lack seamless public transport integration. How can technology-driven multimodal transport solutions improve accessibility and user experience?