Task 3

ML Problem Identification

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Marks: 20

Time: 15 minutes

This task is based on your real-world understanding and ability to identify whether a problem can be solved by Machine Learning or not. Identify and fill problems that you feel can be solved with Machine Learning and also mention the difficulty level of solving using Machine Learning, if it can be solved.

List a set of problems that you think AI/ML can solve in these following domains

S. No	Healthcare Domain	Difficulty
1.	Predicting early onset of chronic diseases using wearable sensor data.	High
2.	AI-powered personalized treatment plans based on patient history and genomics	High
3.	Optimizing hospital resource allocation during pandemics / emergency.	Medium
4.	Real-time analysis of medical imaging for detecting rare conditions.	High
5.	Robotic assistants for elderly care, equipped with AI for monitoring and support.	High

S. No	Education Domain	Difficulty
1.	AI-powered adaptive learning platforms tailored to student behavior	Medium
2.	Detecting plagiarism using Natural Language Processing.	Low
3.	Predicting dropout rates using historical student performance data.	Medium
4.	AI-generated real-time feedback for students during virtual classes.	Medium
5.	Robotic tutors for personalized, hands-on STEM education.	Medium

S. No	Banking Domain	Difficulty
1.	Banking Detecting fraudulent transactions using transaction pattern analysis.	Medium
2.	Banking Predicting loan defaults using customer credit history.	Medium
3.	Banking Real-time chatbot for personalized financial advice.	Low
4.	Banking Dynamic risk assessment for investment portfolios.	High
5.	Banking Robotic bank tellers for efficient and secure transactions.	High

S. No	E-Commerce Domain	Type
1.	AI-powered product recommendation engine	Medium
2.	Dynamic pricing based on real-time demand and competition.	Medium
3.	AI-driven virtual shopping assistants for personalized experience.	High
4.	Predicting product return probability based on user behavior. Sales and Price prediction during sales of different items from different platform like Walmart, Fresh Co, Costco and different shops.	Medium
5.	Robotic warehouse assistants for efficient order fulfillment. / Drone Delivery	High

S. No	Your Problems	Difficulty
1.	AI-powered household robot for tasks like cleaning, cooking, and organizing, allowing users to focus on personal and professional growth	High
2.	AI-based meal planner that optimizes nutrition based on health data and local grocery availability. Schedule assistant which keep tracks for me of everything my job timings, college timings, Gym assistant which keeps track of workout routine and meal prep.	Medium
3.	Predictive model for financial planning, integrating personal goals and market trends. (Like where to invest when what	Medium

	amount should I send to India to repay my loan, amount which I should save and invest in stocks or TFSA according to my income each month)	
4.	AI-driven language learning assistant that adapts to user pace and suggests real-world practice scenarios and talks to you. This will help me a lot to learn French. As French is the second language of Canada which ultimately help me be fit for a bilingual job role as well as improve my skills for Test d'évaluation de français (TEF) exam.	Medium
5.	My 5th Problem is already solved by newly released Nvidia 50 Series Graphic Card. The latency and fps were pretty low for few AAA Games. It introduces **DLSS 4.0** and **Transformer Neural Rendering**, leveraging AI to upscale resolution, generate frames, and enhance realism. Combined with **MFG (Multi-Frame Generation)**, these GPUs deliver up to 2x the performance of the 40 Series, with frame rates jumping from 60 FPS to over 120 FPS in supported titles, ensuring smoother gameplay and unmatched visual fidelity.	High