**Task 4**

**ML Problem Types**

**Marks: 20**

**Time: 15 minutes**

This task is based on your real-world understanding and ability to identify what kind of problem it is. Identify the type of ML problem. Mention whether a problem is Classification / Regression / Clustering / Association / Reinforcement type.

**List the type of problem for the problems you specified in Task3 for the following domains.**

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| **S.No** | **Healthcare** | **Type** |
| **1** | **Use personal risk data to filter patience decisions.** | Classification/ Clustering/ Association |
| **2** | **Medications can be planned to use genetic information.** | Regression/ Clustering/ Association |
| **3** | **Plan medicines to select medication for Chemotherapy.** | Classification/ Regression / Clustering |
| **4** | **Plan the dentist's time and precision.** | Classification / Regression / Clustering / Association / Reinforcement type. |
| **5** | **Protect medicine allergy and medication overlap.** | Classification/ Clustering |

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| **S.No** | **Education** | **Type** |
| **1** | **Matching of instructor and student, as well as material kind.** | Clustering / Association |
| **2** | **Plan subjects and instruction for students to direct them to a specific career.** | Regression / Clustering / Association / Reinforcement type. |
| **3** | **Create instructional media that boost student comprehension.** | Clustering / Association / Reinforcement type |
| **4** | **Help students locate scholarships, part-time jobs, and easy jobs across the world by matching them with things they are studying.** | Classification/ Clustering / Association / Reinforcement type |
| **5** | **Help instructors in developing customized methods for each classroom.** | Classification / Regression / Clustering / Association / Reinforcement type |

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| **S.No** | **Banking** | **Type** |
| **1** | **Clustering customer credit and plan recommendations to retail and business customers** | Classification / Regression / Clustering / Association / Reinforcement type |
| **2** | **Increasing the speed with which customers are served to provide seamless and low-cost service.** | Classification/ Clustering |
| **3** | **Predict customer investment plans and financial engineering** | Classification / Regression / Clustering / Association / Reinforcement type. |
| **4** | **To balance a portfolio, conduct an economic and investment product analysis.** | Classification / Regression / Clustering / Association / Reinforcement type. |
| **5** | **Analyze and recommend a problem for the customer's financial statement** | Classification / Regression / Clustering / Association / Reinforcement type. |

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| **S.No** | **E-Commerce** | **Type** |
| **1** | **Predict and recommend products that customers may be interested in and adjust the pricing and timing of sales.** | Classification / Regression / Clustering / Association / Reinforcement type |
| **2** | **Plan delivery item to client to save time and money.** | Regression / Clustering |
| **3** | **Organizing customers to change Customized advertisements for each** | Classification / Regression / Clustering / Association / Reinforcement type |
| **4** | **Create content to increase client interaction.** | Classification / Regression / Clustering / Association / Reinforcement type |
| **5** | **Collect and analyze customer problems to solve and recommend solutions.** | Clustering / Association |

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| **S.No** | **Your Problems** | **Type** |
| **1** | **Help me organize my time and prioritize my to-do list.** | Classification / Clustering / Association |
| **2** | **Assist me in reducing information and news overlap and summarizing** | Classification / Clustering / Association |
| **3** | **Every aspect of my income and work-life balance should be improved.** | Classification / Regression / Clustering / Association / Reinforcement |
| **4** | **Plan my nutrition and food, as well as your sleep and transportation.** | Regression / Clustering / Association / Reinforcement |
| **5** | **Provide advice on phycology and mental health, as well as lifestyle recommendations.** | Classification / Regression / Clustering / Association / Reinforcement |