1. **Classification Tasks:**
    - **Logistic Regression:**
        - Linear model suitable for binary classification.
        - Interpretable and works well when features have a linear relationship with the target.
    - **Random Forest:**
        - Ensemble method effective for both binary and multi-class classification.
        - Handles non-linearity, interactions, and is robust to overfitting.
    - **Support Vector Machines (SVM):**
        - Effective for high-dimensional spaces and when a clear margin of separation exists.
        - Suitable for both binary and multi-class classification.
2. **Regression Tasks:**
    - **Linear Regression:**
        - Simple, interpretable, and effective when the relationship between features and target is linear.
    - **Gradient Boosting (e.g., XGBoost):**
        - Powerful ensemble method for regression tasks.
        - Handles non-linearity, captures complex relationships, and is less prone to overfitting.
    - **Lasso or Ridge Regression:**
        - Regularized linear models suitable for preventing overfitting in high-dimensional data.
3. **Clustering Tasks:**
    - **K-Means Clustering:**
        - Unsupervised method for partitioning data into clusters.
        - Assumes spherical clusters and is computationally efficient.
    - **Hierarchical Clustering:**
        - Builds a tree of clusters, suitable when the hierarchy of relationships is important.
        - Less sensitive to the initial choice of clusters.
4. **Natural Language Processing (NLP):**
    - **Naive Bayes:**
        - Simple probabilistic model effective for text classification tasks.
        - Assumes independence between features, making it efficient for NLP.
    - **Recurrent Neural Networks (RNN):**
        - Handles sequential data, suitable for tasks like sentiment analysis or language modeling.
        - Captures dependencies in sequences.
5. **Image Recognition:**
    - **Convolutional Neural Networks (CNN):**
        - Specialized for image-related tasks.
        - Utilizes convolutional layers to learn hierarchical representations.
6. **Time-Series Forecasting:**
    - **ARIMA (AutoRegressive Integrated Moving Average):**
        - Suitable for univariate time-series forecasting.
        - Incorporates autoregression, differencing, and moving averages.
    - **RNNs, Long Short-Term Memory (LSTM):**
        - Effective for capturing long-term dependencies in sequential data.

- Suitable for multivariate time-series forecasting.