1. **Customer Churn Prediction:**
    - **Objective:** Predict which customers are likely to leave a service or subscription.
    - **Data Sources:** Customer interaction logs, transaction history, demographic data.
    - **Techniques:** Classification algorithms (e.g., decision trees, logistic regression), survival analysis.
2. **Credit Scoring:**
    - **Objective:** Assess the creditworthiness of loan applicants.
    - **Data Sources:** Credit history, loan repayment records, demographic information.
    - **Techniques:** Logistic regression, decision trees, ensemble methods (e.g., random forests).
3. **Market Basket Analysis:**
    - **Objective:** Identify product purchase patterns to improve cross-selling and up-selling strategies.
    - **Data Sources:** Transaction data from retail stores.
    - **Techniques:** Association rule mining, Apriori algorithm.
4. **Fraud Detection:**
    - **Objective:** Detect fraudulent transactions in financial systems.
    - **Data Sources:** Transaction logs, user behavior data.
    - **Techniques:** Anomaly detection, clustering, supervised learning (e.g., support vector machines).
5. **Sentiment Analysis:**
    - **Objective:** Analyze customer reviews to gauge sentiment towards products or services.
    - **Data Sources:** Social media posts, online reviews.
    - **Techniques:** Natural language processing (NLP), sentiment analysis models (e.g., VADER, BERT).
6. **Predictive Maintenance:**
    - **Objective:** Predict when equipment or machinery is likely to fail.
    - **Data Sources:** Sensor data from machines, maintenance records.

- **Techniques:** Time series analysis, machine learning (e.g., regression models, neural networks).

7. **Recommendation Systems:**
    - **Objective:** Suggest products or content to users based on their preferences.
    - **Data Sources:** User interaction data, product metadata.
    - **Techniques:** Collaborative filtering, content-based filtering, hybrid methods.
8. **Healthcare Analytics:**
    - **Objective:** Predict patient outcomes and personalize treatment plans.
    - **Data Sources:** Electronic health records (EHR), patient demographics, medical history.
    - **Techniques:** Predictive modeling, survival analysis, clustering.
9. **Stock Market Prediction:**
    - **Objective:** Forecast stock prices or market trends.
    - **Data Sources:** Historical stock prices, financial news, economic indicators.
    - **Techniques:** Time series forecasting, machine learning (e.g., LSTM, ARIMA).
10. **Image Classification:**
    - **Objective:** Classify images into different categories (e.g., medical images, wildlife species).
    - **Data Sources:** Image datasets (e.g., CIFAR-10, ImageNet).
    - **Techniques:** Convolutional neural networks (CNNs), transfer learning.