**1. Mobile Price prediction Using Random Forest (Ensemble)**

* **Description**: Detect fraudulent credit card transactions using atleast 3 ensemble methods( Stacking, bagging and boosting) . This project involves creating a classifier that can distinguish between normal and fraudulent transactions based on transaction attributes.
* **Dataset** Mobile Price Prediction Dataset
* **Key Tasks**: Data preprocessing (handling imbalanced data), feature engineering, training the Random Forest model, and evaluating with metrics like precision, recall, and F1-score. Create a chart in python to compare the results of 3 algorithms used

**2. Image Classification Using Convolutional Neural Networks (CNN)**

* **Description**: Classify images of animals (such as cats and dogs) using a CNN model. This project focuses on deep learning techniques for image processing.
* **Dataset**: Dogs vs Cats Dataset
* **Key Tasks**: Preprocessing the images, building a CNN architecture, training the model, and testing the classifier’s performance.

**3. Customer Segmentation Using K-Means Clustering and any new algorithm of your choice in classifications**

* **Description**: Segment customers based on their purchasing behavior using unsupervised learning (K-Means clustering and any one classification algorithm of your choice). The goal is to identify different customer groups for targeted marketing.
* **Dataset**: E-Commerce Customer Segmentation Dataset
* **Key Tasks**: Data cleaning, feature extraction, applying K-Means clustering and one more classifier, and analyzing customer segments using visualizations.

**4. Bike Sharing Prediction**

* **Description**: Predict house prices using ensemble learning method XGBoost and anyone of your choice
* **Dataset**: https://www.kaggle.com/datasets/lakshmi25npathi/bike-sharing-dataset
* **Key Tasks**: Data preprocessing, feature engineering, handling missing data, training the XGBoost model, and evaluating predictions using Mean Absolute Error (MAE) or Root Mean Squared Error (RMSE).

**5. Predicting Titanic Survival**

* Problem: Predict whether a passenger survived the Titanic disaster based on features such as age, gender, and class. Ensemble algorithms like Random Forest Ada and Gradient Boosting can improve accuracy in capturing the interactions between these variables.
* **Dataset: Titanic Dataset**

6 . **classification:**

For the dataset available in https://archive.ics.uci.edu/ml/machine-learning-databases/breast-cancer-wisconsin/wdbc.data", do the ensemble learning ( any 3 models) and compare the results using a chart and colourful confusion matrix

breast cancer dataset

7. **classification:**

For the dataset available in git hub for **Telco Customer Churn** do the ensemble learning ( any 3 models) and compare the results using a chart and colourful confusion matrix

https://www.kaggle.com/datasets/blastchar/telco-customer-churn