ML Practical List

1. The advertising dataset captures the sales revenue generated with respect to advertisement costs across multiple channels like Radio, TV, and Newspapers.
   Objectives:
   i. Understand the Dataset & cleanup (if required).
   ii. Build Regression model to predict the sales w.r.t Radio features.
   iii. Also evaluate the model using scores RMSE

2. The advertising dataset captures the sales revenue generated with respect to advertisement costs across multiple channels like radio, tv, and newspapers.
   Objectives:
   i. Understand the Dataset & cleanup (if required).
   ii. Build Regression model to predict the sales w.r.t attribute tv.
   iii. Also evaluate the model using scores RMSE

3. The advertising dataset captures the sales revenue generated with respect to advertisement costs across multiple channels like radio, tv, and newspapers.
   Objectives:
   i. Understand the Dataset & cleanup (if required).
   ii. Build Regression model to predict the sales w.r.t attribute newspaper.
   iii. Also evaluate the model using scores RMSE

4. The advertising dataset captures the sales revenue generated with respect to advertisement costs across multiple channels like radio, tv, and newspapers.
   Objectives:
   i. Understand the Dataset & cleanup (if required).
   ii. Build Regression model to predict the sales w.r.t Radio and TV
   iii. Also evaluate the model using scores RMSE

5. The advertising dataset captures the sales revenue generated with respect to advertisement costs across multiple channels like radio, tv, and newspapers.
   Objectives:
   i. Understand the Dataset & cleanup (if required).
   ii. Build Regression model to predict the sales w.r.t Newspaper and TV
   iii. Also evaluate the model using scores RMSE

6. The advertising dataset captures the sales revenue generated with respect to advertisement costs across multiple channels like radio, tv, and newspapers.
   Objectives:
   i. Understand the Dataset & cleanup (if required).
   ii. Build Regression model to predict the sales w.r.t Newspaper and Radio
   iii. Also evaluate the model using scores RMSE

7. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
   Objectives:
   i. Understand the Dataset & cleanup (if required).
   ii. Build Regression model to predict the selling prices w.r.t year brought
   iii. Also evaluate the model using scores RMSE

8. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
   Objectives:
   i. Understand the Dataset & cleanup (if required).
   ii. Build Regression model to predict the selling prices w.r.t km_driven
   iii. Also evaluate the model using scores RMSE

9. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
   Objectives:
   i. Understand the Dataset & cleanup (if required).
   ii. Build Regression model to predict the selling prices w.r.t transmission
   iii. Also evaluate the model using scores RMSE

10. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Build Regression model to predict the selling prices w.r.t owner
    iii. Also evaluate the model using scores RMSE

11. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Build Regression model to predict the selling prices w.r.t year brought and km_driven
    iii. Also evaluate the model using scores RMSE

12. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Build Regression model to predict the selling prices w.r.t year brought and transmission
    iii. Also evaluate the model using scores RMSE

13. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Build Regression model to predict the selling prices w.r.t year brought and owner
    iii. Also evaluate the model using scores RMSE

14. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Build Regression model to predict the selling prices w.r.t year brought and owner
    iii. Also evaluate the model using scores RMSE

15. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Build Regression models to predict the selling prices w.r.t km driven and transmission
    iii. Also evaluate the model using scores RMSE

16. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Build Regression models to predict the selling prices w.r.t km driven and owner
    iii. Also evaluate the model using scores RMSE

17. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Build Regression models to predict the selling prices w.r.t transmission and owner
    iii. Also evaluate the model using scores RMSE
18. The car dataset captures the selling price of the used cars with respect to features like year_bought, km_driven, transmission and owner.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Build Regression models to predict the selling prices w.r.t transmission and owner
    iii. Also evaluate the model using scores RMSE

19. A social network dataset is a categorical dataset to determine whether a user purchased a particular product based on gender, age and estimated salary.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to classify whether a user purchased a car or not? (**Use Linear Kernel)**
    iii. Create a confusion matrix and evaluate the model using accuracy
20. A social network dataset is a categorical dataset to determine whether a user purchased a particular product based on gender, age and estimated salary.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to classify whether a user purchased a car or not**? (Use Linear Kernel)**
    iii. Create a confusion matrix and evaluate the model using Recall.

21. A social network dataset is a categorical dataset to determine whether a user purchased a particular product based on gender, age and estimated salary.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to classify whether a user purchased a car or not? **(Use Linear Kernel)**
    iii. Create a confusion matrix and evaluate the model using Precision

22. A social network dataset is a categorical dataset to determine whether a user purchased a particular product based on gender, age and estimated salary.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to classify whether a user purchased a car or not**? (Use RBF Kernel)**
    iii. Create a confusion matrix and evaluate the model using F1-Measure

23. A social network dataset is a categorical dataset to determine whether a user purchased a particular product based on gender, age and estimated salary.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to classify whether a user purchased a car or not? (**Use RBF Kernel)**
    iii. Create a confusion matrix and evaluate the model using accuracy

24. A social network dataset is a categorical dataset to determine whether a user purchased a particular product based on gender, age and estimated salary.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to classify whether a user purchased a car or not**? (Use RBF Kernel)**
    iii. Create a confusion matrix and evaluate the model using Recall.

25. A social network dataset is a categorical dataset to determine whether a user purchased a particular product based on gender, age and estimated salary.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to classify whether a user purchased a car or not? **(Use RBF Kernel)**
    iii. Create a confusion matrix and evaluate the model using Precision

26. A social network dataset is a categorical dataset to determine whether a user purchased a particular product based on gender, age and estimated salary.
    Objectives:
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to classify whether a user purchased a car or not**? (Use RBF Kernel)**
    iii. Create a confusion matrix and evaluate the model using F1-Measure

27. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant. One class is linearly separable from the other 2; the latter are NOT linearly separable from each other.
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to predict the iris plant category**? (Use Linear Kernel)**
    iii. Create a confusion matrix and evaluate the model using Precision.

28. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant. One class is linearly separable from the other 2; the latter are NOT linearly separable from each other.
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to predict the iris plant category**? (Use Linear Kernel)**
    iii. Create a confusion matrix and evaluate the model using Recall.

29. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant. One class is linearly separable from the other 2; the latter are NOT linearly separable from each other.
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to predict the iris plant category**? (Use Linear Kernel)**
    iii. Create a confusion matrix and evaluate the model using Accuracy.

30. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant. One class is linearly separable from the other 2; the latter are NOT linearly separable from each other.
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to predict the iris plant category**? (Use Linear Kernel)**
    iii. Create a confusion matrix and evaluate the model using F1-Measure.

31. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant. One class is linearly separable from the other 2; the latter are NOT linearly separable from each other.
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to predict the iris plant category**? (Use RBF Kernel)**
    iii. Create a confusion matrix and evaluate the model using Precision.

32. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant. One class is linearly separable from the other 2; the latter are NOT linearly separable from each other.
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to predict the iris plant category**? (Use RBF Kernel)**

iii. Create a confusion matrix and evaluate the model using Recall.

33. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant. One class is linearly separable from the other 2; the latter are NOT linearly separable from each other.
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to predict the iris plant category**? (Use RBF Kernel)**
    iii. Create a confusion matrix and evaluate the model using Accuracy.

34. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant. One class is linearly separable from the other 2; the latter are NOT linearly separable from each other.
    i. Understand the Dataset & cleanup (if required).
    ii. Use a SVM to predict the iris plant category**? (Use RBF Kernel)**
    iii. Create a confusion matrix and evaluate the model using F1-Measure.

35. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant.
    i. Understand the Dataset & cleanup (if required).
    ii. Build a decision tree classifier to predict the iris plant category**? (Use GINI INDEX criteria, use max_depth=4, min_samples_split=2)**
    iii. Evaluate the model using Accuracy.

36. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant.
    i. Understand the Dataset & cleanup (if required).
    ii. Build a decision tree classifier to predict the iris plant category**? (Use Entropy criteria, use max_depth=4, min_samples_split=2)**
    iii. Evaluate the model using Accuracy.

37. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant.
    i. Understand the Dataset & cleanup (if required).
    ii. Build a decision tree classifier to predict the iris plant category**? (Use log loss criteria, use max_depth=4, min_samples_split=2)**
    iii. Evaluate the model using Accuracy.

38. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant.
    i. Understand the Dataset & cleanup (if required).
    ii. Build a logistic Regression classifier to predict the iris plant category**?**
    iii. Evaluate the model using Accuracy.

39. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant.
    i. Understand the Dataset & cleanup (if required).
    ii. Build a **Bagging Classifier** model to predict the iris plant category**?**
    iii. Evaluate the model using Accuracy.

40. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant.
    i. Understand the Dataset & cleanup (if required).
    ii. Build a **Random Forest Classifier** model to predict the iris plant category**?**
    iii. Evaluate the model using Accuracy.

41. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant.
    i. Understand the Dataset & cleanup (if required).
    ii. Build a **Gradient Boost Classifier** model to predict the iris plant category**?**
    iii. Evaluate the model using Accuracy

42. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant.
    i. Understand the Dataset & cleanup (if required).
    ii. Build a **AdaBoost Classifier** model to predict the iris plant category**?**

iii. Evaluate the model using Accuracy

43. The Iris data set contains 3 classes of 50 instances each, where each class refers to a type of iris plant. Apply Principal Component Analysis on the Iris dataset.
    i. Understand the Dataset & cleanup (if required).
    ii. Build any one classifier of your choice on the dataset to predict the Iris plant category. (Without Applying PCA)
    iii. Apply **PCA** technique for dimensionality reduction. And build the same classifier that you have chosen in step ii to predict the Iris plant category. Compare the results**.**