**RANDOM FOREST CLASSIFIER**

**Accuracy model Questions:**

Q1. What is the percentage of correct classification to the total input of the test set?

**Ans: Accuracy🡪0.92**

Q2. What is the overall performance of the model percentage?

**Ans: Accuracy🡪0.92**

**Q3.** Which paramaeter is used for the overall performance of the Random forest model?

Ans: Criterian-gini, max\_features-log2,n\_estimators-50

**Recall model Questions:**

Q4.what is the correct classification of not purchased?

**Ans: Recall🡪0.93**

Q5.what is the Recall not purchased percentage?

**Ans: Recall🡪0.93**

Q6. What is the correct classification of purchased?

**Ans: Recall🡪0.90**

Q7. What is the Recall purchased percentage?

**Ans: Recall🡪0.90**

**Precision model Questions:**

Q8. What is the Precision of purchased percentage?

**Ans: Precision🡪0.88**

Q9. What is the correct classification Precision of purchased percentage?

**Ans: Precision🡪0.88**

Q10. What is the Precision of not purchased percentage?

**Ans: Precision🡪0.94**

Q11. What is the correct classification of Precision of not purchased percentage?

**Ans: Precision🡪0.94**

**F1-Score model Questions:**

Q12. What is the F1-score of purchased percentage?

**Ans: F1-Score🡪0.89**

Q13. Correct classification is the F1-score of purchased percentage?

**Ans: F1-Score🡪0.89**

Q14. What is the F1-score of not purchased percentage?

**Ans: F1-Score🡪0.93**

Q15. Correct classification is the F1-score of not purchased percentage?

**Ans: F1-Score🡪0.93**

**Support input Class Questions:**

Q16. What is total input of not purchased class?

**Ans: Support🡪85**

Q17. What is total input of purchased class?

**Ans: Support🡪49**

**Macro Average Questions:**

Q18. Classify the Correct performance of Macro average for Precision, Recall and F1-Score?

**Ans: Precision🡪0.91, Recall🡪0.91, F1-Score🡪0.91**

**Weighted Average Questions:**

Q19. Classify the Correct performance of Macro average for Precision, Recall and F1-Score?

**Ans: Precision🡪0.92, Recall🡪0.92, F1-Score🡪0.92**

**DECISION TREE CLASSIFIER**

**Accuracy model Questions:**

Q1. What is the percentage of correct classification to the total input of the test set?

**Ans: Accuracy🡪0.88**

Q2. What is the overall performance of the model percentage?

**Ans: Accuracy🡪0.88**

**Q3.** Which paramaeter is used for the overall performance of the DecisionTreeClassifier model?

Ans: Criterian-gini, max\_features-log2,Splittere=best

**Recall model Questions:**

Q4.what is the correct classification of not purchased?

**Ans: Recall🡪0.90**

Q5.what is the Recall not purchased percentage?

**Ans: Recall🡪0.90**

Q6. What is the correct classification of purchased?

**Ans: Recall🡪0.85**

Q7. What is the Recall purchased percentage?

**Ans: Recall🡪0.85**

**Precision model Questions:**

Q8. What is the Precision of purchased percentage?

**Ans: Precision🡪0.81**

Q9. What is the correct classification Precision of purchased percentage?

**Ans: Precision🡪0.81**

Q10. What is the Precision of not purchased percentage?

**Ans: Precision🡪0.92**

Q11. What is the correct classification of Precision of not purchased percentage?

**Ans: Precision🡪0.92**

**F1-Score model Questions:**

Q12. What is the F1-score of purchased percentage?

**Ans: F1-Score🡪0.83**

Q13. Correct classification is the F1-score of purchased percentage?

**Ans: F1-Score🡪0.83**

Q14. What is the F1-score of not purchased percentage?

**Ans: F1-Score🡪0.91**

Q15. Correct classification is the F1-score of not purchased percentage?

**Ans: F1-Score🡪0.91**

**Support input Class Questions:**

Q16. What is total input of not purchased class?

**Ans: Support🡪79**

Q17. What is total input of purchased class?

**Ans: Support🡪41**

**Macro Average Questions:**

Q18. Classify the Correct performance of Macro average for Precision, Recall and F1-Score?

**Ans: Precision🡪0.87, Recall🡪0.88, F1-Score🡪0.87**

**Weighted Average Questions:**

Q19. Classify the Correct performance of Macro average for Precision, Recall and F1-Score?

**Ans: Precision🡪0.89, Recall🡪0.88, F1-Score🡪0.88**

**SVM MODLE CLASSIFIER**

**Accuracy model Questions:**

Q1. What is the percentage of correct classification to the total input of the test set?

**Ans: Accuracy🡪0.72**

Q2. What is the overall performance of the model percentage?

**Ans: Accuracy🡪0.72**

**Q3.** Which paramaeter is used for the overall performance of the DecisionTreeClassifier model?

Ans: Kernel=rbf, degree=3, C=1

**Recall model Questions:**

Q4.what is the correct classification of not purchased?

**Ans: Recall🡪0.99**

Q5.what is the Recall not purchased percentage?

**Ans: Recall🡪0.99**

Q6. What is the correct classification of purchased?

**Ans: Recall🡪0.20**

Q7. What is the Recall purchased percentage?

**Ans: Recall🡪0.20**

**Precision model Questions:**

Q8. What is the Precision of purchased percentage?

**Ans: Precision🡪0.89**

Q9. What is the correct classification Precision of purchased percentage?

**Ans: Precision🡪0.89**

Q10. What is the Precision of not purchased percentage?

**Ans: Precision🡪0.70**

Q11. What is the correct classification of Precision of not purchased percentage?

**Ans: Precision🡪0.70**

**F1-Score model Questions:**

Q12. What is the F1-score of purchased percentage?

**Ans: F1-Score🡪0.32**

Q13. Correct classification is the F1-score of purchased percentage?

**Ans: F1-Score🡪0.32**

Q14. What is the F1-score of not purchased percentage?

**Ans: F1-Score🡪0.82**

Q15. Correct classification is the F1-score of not purchased percentage?

**Ans: F1-Score🡪0.82**

**Support input Class Questions:**

Q16. What is total input of not purchased class?

**Ans: Support🡪79**

Q17. What is total input of purchased class?

**Ans: Support🡪41**

**Macro Average Questions:**

Q18. Classify the Correct performance of Macro average for Precision, Recall and F1-Score?

**Ans: Precision🡪0.80, Recall🡪0.59, F1-Score🡪0.57**

**Weighted Average Questions:**

Q19. Classify the Correct performance of Macro average for Precision, Recall and F1-Score?

**Ans: Precision🡪0.77, Recall🡪0.72, F1-Score🡪0.65**

|  |
| --- |
| **RANDOM FOREST CLASSIFIER**  **Ans: Accuracy🡪0.92**  Ans: Criterian-gini, max\_features-log2,n\_estimators-50  Random Forest Classifier is the best model |
| **DECISION TREE CLASSIFIER**  **Accuracy🡪0.88**  Criterian-gini, max\_features-log2,Splittere=best |
| **SVM MODLE CLASSIFIER**  **Accuracy🡪0.72**  Kernel=rbf, degree=3, C=1 |