ML Classification ASG

1.Random Forest:

- What is the accuracy score in RF?

    Accuracy - 0.91

	X	Y
X	73	6
Y	5	36
TX		73
TY		36
FX		5
FY		6
Accuracy	TX+TY/TX+TY+FX+FY	
Accuracy		0.91

- What is the Precision purchased Score?

    Precision - 0.86

	X	Y
X	73	6
Y	5	36
TX		73
TY		36
FX		5
FY		6
Precision	TY/FX+TY	
Precision		0.86

- What is the Precision not purchased Score?

    Precision - 0.94

	X	Y
X	73	6
Y	5	36
TX		73
TY		36
FX		5
FY		6
Precision	TX/TX+FY	
Precision		0.94

- What is the correctly purchased score?

    recall - 0.88

	X	Y
X	73	6
Y	5	36
TX		73
TY		36
FX		5
FY		6
Recall	TY/TY+FY	
Recall		0.88

- What is the correctly and incorrectly purchased score?

Precision - 0.86

- What is the f1 score in 0?

  f1 score - 0.93

F1 Score	2*Recall*Precision/ Recall+precision
Precision	0.94
Recall	0.92
F1 Score	0.93

- What is the macro avg score in recall?

  recall - 0.90

macro avg	Precision(X)+Precision(Y)/ 2
Precision(X)	0.94
Precision(Y))	0.86
macro avg	0.90

2.Decision Tree:

- What is the Precision score of 1?

  Precision - 0.81
- What is the overall performance score?

  Accuracy - 0.88
- What is the test data count of 1?

  support - 41
- What is the test data count of 0?

  Support - 79
- What is the f1 score in purchased?

  f1 score - 0.83
- What is the f1 score in not purchased?

  f1 score - 0.91

3.SVM:

- What is the recall score of not purchased?

  recall - 0.97
- What is the recall score of 1?

  Recall - 0.46
- What is the accuracy score in SVM?

  Accuracy - 0.80
- What is the total count of test data?

  Support - 120
- What is the weighted avg in precision?

  weighted avg - 0.82

weighted avg	Precision(X)*Total count of X/Total count of X & Y+Precision(Y)*Total count of Y/Total count of X & Y
Precision (X)	0.78
Precision (Y)	0.90
Total count of X	79.00
Total count of Y	41.00
Total count of X & Y	120.00
weighted avg	0.82

- What is the macro avg in precision?

  macro avg - 0.84

4.Logistic Regression:

- What is the precision of 0?

  precision - 0.90
- What is the f1 score in 1?

  F1 score - 0.84
- What is the correctly and incorrectly purchased score?

  precision - 0.87
- What is the correctly not purchased score?

  Recall - 0.94
- What is the accuracy of Logistic Regression?

  Accuracy - 0.89
- What is the macro avg in f1-score?

  macro avg - 0.88