Random Forest Classification

1. What is the overall percentage of **accuracy** for the Random Forest model?

   Answer → 0.90

2. What is the percentage of correct classification for "not purchased" instances compared to the total number of "**not purchased**" inputs in the test set?

   Answer → 0.92

3. What is the percentage of correct classification for "purchased" instances compared to the total number of "**purchased**" inputs in the test set?

   Answer → 0.88

4. What is the percentage of correct classification for "**not purchased**" instances compared to the sum of correctly classified "not purchased" and incorrectly classified "not purchased" instances in the test set?

   Answer → 0.93

5. What is the percentage of correct classification for "**purchased**" instances compared to the sum of correctly classified "purchased" and incorrectly classified "purchased" instances in the test set?

   Answer → 0.86

6. What is the overall performance of the "**not purchased**" classification?

   Answer → 0.92

7. What is the overall performance of the "**purchased**" classification?

   Answer → 0.87

8. What is the average performance of **precision** for correctly and incorrectly classified instances?

   Answer → 0.89

9. What is the average performance of **recall** for correctly and incorrectly classified instances?

   Answer → 0.90

10. What is the average performance of **F1 measure** for correctly and incorrectly classified instances?

    Answer → 0.90

11. What is the sum of the product of the precision rate (weight) of each class?

    Answer → 0.90

12. What is the sum of the product of the recall rate (weight) of each class?

Answer → 0.90

13. What is the sum of the proportion rate (weight) of each class?

    Answer → 0.90

14. What is the total number of test data instances classified as "not purchased"?

    Answer → 85

15. What is the total number of test data instances classified as "purchased"?

    Answer → 49

16. What is the total performance of the model on the entire test data (overall performance)?

    Answer → 134

17. What is the total average performance of the model on the test data?

    Answer → 134

18. What is the total proportion rate for all instances in the test data?

    Answer → 134

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In [18]: print(clf_report)
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	precision	recall	f1-score	support
0	0.93	0.92	0.92	85
1	0.86	0.88	0.87	49
accuracy			0.90	134
macro avg	0.89	0.90	0.90	134
weighted avg	0.90	0.90	0.90	134