|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| For Random Forest | | | | | |
|  | No.of Test set | 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 |

Questions & Answers:-

1. What is the overall performance of the Random Forest? Accuracy 0.90
2. How many test samples used? Total 134
3. What is the precision score for 1? 0.86
4. How many test samples belong to class 1? 49
5. What is the macro average f1-score? 0.90
6. What is the weighted average precision? 0.90

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| For Decision Tree | | | | | |
|  | No.of Test set | precision | recall | f1-score | support |
|  | 0 | 0.90 | 0.89 | 0.90 | 85 |
|  | 1 | 0.82 | 0.84 | 0.83 | 49 |
| accuracy |  |  |  | 0.87 | 134 |
| macro avg |  | 0.86 | 0.87 | 0.86 | 134 |
| weighted avg |  | 0.87 | 0.87 | 0.87 | 134 |

Questions & Answers:-

1. What is the overall performance of the Decision Tree? Accuracy 0.87
2. How many test samples used? Total 134
3. What is the precision score for 1? 0.82
4. How many test samples belong to class 1? 49
5. What is the macro average f1-score? 0.86
6. What is the weighted average precision? 0.87

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| For Support Vector Machine | | | | | |
|  | No.of Test set | precision | recall | f1-score | support |
|  | 0 | 0.76 | 0.96 | 0.85 | 85 |
|  | 1 | 0.88 | 0.47 | 0.61 | 49 |
| accuracy |  |  |  | 0.78 | 134 |
| macro avg |  | 0.82 | 0.72 | 0.73 | 134 |
| weighted avg |  | 0.81 | 0.78 | 0.76 | 134 |

Questions & Answers:-

1. What is the overall performance of the SVM? Accuracy 0.78
2. How many test samples used? Total 134
3. What is the precision score for 1? 0.88
4. How many test samples belong to class 1? 49
5. What is the macro average f1-score? 0.73
6. What is the weighted average precision? 0.81

**So comparing all the three Algorithm we have concluded that Random Forest is declared as the Best Model**