# Analysis of Classifiers without Cluster ID

## Initial Values:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Random Forrest** | **Decision Tree** | **KNN** | **Naïve Bayes** | **SVC** |
| **Accuracy** | 0.45757593025243604 | 0.40982392159097386 | 0.4457803863468004 | 0.5286341102057097 | 0.4450965867000969 |
| **F1 Score** | 0.43665658841356303 | 0.412654803634187 | 0.4052913082091328 | 0.36562578396916195 | 0.3730537206521399 |

## Tuning of KNN and Random Forrest:

|  |  |  |
| --- | --- | --- |
|  | **Random Forrest** | **KNN** |
| **Avg. Accuracy on Training Data** | 54.19586985710618% | 51.517621856629404% |
| **Accuracy on Test Data** | 53.43324405949057% | 51.60408000455866% |
| **F1 Score** | 42.44380412662057% | 39.42884289004468% |

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| --- | --- | --- | --- | --- | --- |
|  | **Random Forrest** | **Decision Tree** | **KNN** | **Naïve Bayes** | **SVC** |
| **Accuracy** | 0.5017983720000841 | 0.45769093241907327 | 0.5066571314389079 | 0.4168647329785668 | 0.28679300843446986 |
| **F1 Score** | 0.48638186202436773 | 0.4573674890970003 | 0.4844383817235384 | 0.2694179699884696 | 0.2821108136581546 |

## Tuning of KNN and Random Forrest:

|  |  |  |
| --- | --- | --- |
|  | **Random Forrest** | **KNN** |
| **Avg. Accuracy on Training Data** | 51.7563797877268% | 49.73568261312045% |
| **Accuracy on Test Data** | 51.74894306207013% | 50.66571314389079% |
| **F1 Score** | 46.69620780886967% | 48.44383817235384% |