# Studio-3

## Summary Table

After performing the tasks, as outlined in Studio 3, the following is a summary table of the accuracy value of all the SVM models developed so far.

|  |  |  |
| --- | --- | --- |
| **SVM Model** | **Train-Test Split** | **Cross Validation** |
| **Original Features** | 89.71% | 89.17% |
| **With Hyperparameter Tuning** | 84.04% | 83.60% |
| **With Feature Selection and Hyperparameter Tuning** | 84.29% | 83.80% |
| **With PCA and Hyperparameter Tuning** | 84.15% | 83.64% |

## Statistics with other Classifiers

After performing the train-test split and cross-validation on the original set of data with other available forms of classifiers, as listed, these are the observations in the form of a table below.

|  |  |  |
| --- | --- | --- |
| **Model** | **Train-Test Split** | **Cross Validation** |
| **SVM** | 89.08% | 89.20% |
| **SGD** | 75.47% | 88.06% |
| **RandomForest** | 92.32% | 92.61% |
| **MLP** | 88.48% | 88.39% |