Reports the confusion matrices for all of the classifiers' results (LDA, Logistic Regression, KNN, SVM).

LDA:

[[ 490. 6. 0. 0. 0. 0.]

[ 11. 460. 0. 0. 0. 0.]

[ 1. 14. 405. 0. 0. 0.]

[ 0. 1. 0. 434. 56. 0.]

[ 0. 0. 0. 22. 510. 0.]

[ 0. 0. 0. 0. 0. 537.]]

Precision for LDA: [97.61, 95.63, 100.0, 95.18, 90.11, 100.0]

Recall for LDA: [98.79, 97.66, 96.43, 88.39, 95.86, 100.0]

Accuracy for LDA: 96.23

Logistic Regression:

[[ 494. 0. 2. 0. 0. 0.]

[ 23. 448. 0. 0. 0. 0.]

[ 4. 9. 407. 0. 0. 0.]

[ 0. 4. 0. 432. 55. 0.]

[ 2. 0. 0. 13. 517. 0.]

[ 0. 0. 0. 0. 0. 537.]]

Precision for LR: [94.46, 97.18, 99.51, 97.08, 90.38, 100.0]

Recall for LR: [99.6, 95.12, 96.9, 87.98, 97.18, 100.0]

Accuracy for LR: 96.2

K-Neighbors Classifier:

[[ 486. 1. 9. 0. 0. 0.]

[ 42. 426. 3. 0. 0. 0.]

[ 51. 42. 327. 0. 0. 0.]

[ 0. 4. 0. 420. 67. 0.]

[ 0. 0. 0. 51. 481. 0.]

[ 0. 0. 0. 2. 1. 534.]]

Precision for KNN: [83.94, 90.06, 96.46, 88.79, 87.61, 100.0]

Recall for KNN: [97.98, 90.45, 77.86, 85.54, 90.41, 99.44]

Accuracy for KNN: 90.74.

SVM with kernel = 'rbf':

[[ 492. 0. 4. 0. 0. 0.]

[ 17. 452. 2. 0. 0. 0.]

[ 13. 29. 378. 0. 0. 0.]

[ 0. 2. 0. 424. 65. 0.]

[ 0. 0. 0. 44. 488. 0.]

[ 0. 0. 0. 0. 0. 537.]]

Precision: [94.25, 93.58, 98.44, 90.6, 88.25, 100.0]

Recall: [99.19, 95.97, 90.0, 86.35, 91.73, 100.0]

Accuracy: 94.03

SVM with kernel = 'linear':

[[ 492. 1. 3. 0. 0. 0.]

[ 18. 451. 2. 0. 0. 0.]

[ 4. 6. 410. 0. 0. 0.]

[ 0. 2. 0. 435. 54. 0.]

[ 0. 0. 0. 16. 516. 0.]

[ 0. 0. 0. 0. 0. 537.]]

Precision: [95.72, 98.04, 98.8, 96.45, 90.53, 100.0]

Recall: [99.19, 95.75, 97.62, 88.59, 96.99, 100.0]

Accuracy: 96.4

SVM with kernel = 'poly'

[[ 491. 0. 5. 0. 0. 0.]

[ 38. 424. 9. 0. 0. 0.]

[ 54. 44. 322. 0. 0. 0.]

[ 0. 4. 0. 410. 77. 0.]

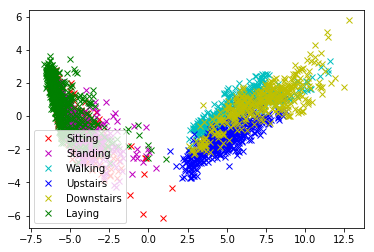
[ 0. 1. 0. 41. 490. 0.]

[ 0. 0. 0. 0. 0. 537.]]

Precision: [95.53, 92.17, 77.59, 90.91, 85.96, 100.0]

Recall: [98.99, 90.02, 76.67, 83.5, 92.11, 100.0]

Accuracy: 90.74



The test error rate of SVM with kernel = "linear" is 0.035968781812

The test error rate for 6 of SVM with kernel = "linear" is 0.0

The test error rate of LDA is 0.0376654224635

The test error rate for 6 of LDA is 0.0

The test error rate of Logistic Regression is 0.0380047505938

The test error rate for 6 of Logistic Regression is 0.0

The test error rate of K-Neighbors Classifier is 0.0926365795724

The test error rate for 6 of K-Neighbors Classifier is 0.00101798439091