MACHINE LEARNING LAB-6 OUTPUTS

TO-DO-OUTPUTS:

```
RBF Kernel Accuracy: 1.0
RBF Confusion Matrix:
 [[10  0  0]
 [ 0  9  0]
 [ 0  0 11]]
Linear Kernel Accuracy: 1.0
Linear Confusion Matrix:
 [[10  0  0]
 [ 0  9  0]
 [ 0  0 11]]
```

```
<ipython-input-1-4690f60118ba>:12: FutureWarning: DataFrame.applymap has been deprecated. Use DataFrame.map instead.
  letters = letters[letters.iloc[:, 1:].applymap(lambda x: str(x).strip().replace('.', '', 1).isdigit()).all(axis=1)]
SVM Classifier on Letter Recognition Dataset
Accuracy: 0.9305
Confusion Matrix:
 [[144   0   1   0   0   0   1   0   0   0   1   0   1   0   0   0   0   0
    0   0   1   0   0   0   0   0]
 [  0 143   0   5   0   1   0   0   0   0   0   0   0   0   0   0   0   4
    0   0   0   0   0   0   0   0]
 [  0   0 123   0   2   0   3   1   0   0   1   0   0   0   4   0   0   2
    0   0   1   0   0   0   0   0]
 [  0   1   0 153   0   0   0   2   0   0   0   0   0   0   0   0   0   0
    0   0   0   0   0   0   0   0]
 [  0   3   1   0 130   0   5   0   0   0   0   0   0   0   0   0   1   0
    0   0   0   0   0   0   0   1]
 [  0   2   0   0   1 134   0   0   1   0   0   0   0   0   0   0   0   0
    1   1   0   0   0   0   0   0]
 [  1   0   1   4   0   0 149   0   0   0   2   0   0   0   0   0   0   2
    0   0   0   1   0   0   0   0]
 [  0   4   0   8   0   0   0 106   0   0   5   0   0   1   2   1   1  13
    0   0   2   0   0   0   1   0]
 [  0   0   0   1   0   2   0   0 134   7   0   0   0   0   0   0   0   0
    0   0   0   0   0   2   0   0]
 [  0   0   0   1   1   1   0   0   3 139   0   0   0   0   1   0   0   0
    3   0   0   0   0   0   0   0]
 [  0   0   0   2   0   0   0   1   0   0 112   0   0   0   0   0   0  12
    0   0   0   0   0   3   0   0]
 [  0   0   1   0   4   0   3   0   0   0   0 142   0   0   1   0   1   1
    2   0   0   0   0   0   0   0]
 [  0   2   0   0   0   0   0   0   0   0   0   0 164   0   0   0   0   2
    0   0   0   0   0   0   0   0]
 [  1   0   0   3   0   0   0   0   0   0   0   0   0 139   5   0   0   2
    0   0   0   0   1   0   0   0]
 [  0   0   0   4   0   0   0   0   0   0   0   0   1   0 134   0   2   0
    0   0   1   0   3   0   0   0]
 [  0   1   0   0   0  14   8   0   0   0   0   0   0   0   0 148   0   0
    0   0   0   0   0   2   0   0]
 [  0   3   0   1   3   0   0   0   0   0   0   0   0   0   0   0 159   0
    0   0   0   0   0   0   0   0]
 [  0   5   0   2   0   0   0   0   0   0   2   1   0   2   0   0   0 148
    0   0   0   0   0   0   0   0]
 [  0   2   0   0   1   0   0   0   0   0   0   0   0   0   0   0   0   0
  167   0   0   0   0   0   0   1]
 [  0   1   0   0   1   0   0   0   0   0   0   2   0   0   0   0   0   1
    0 153   1   0   0   2   1   1]
 [  0   0   0   0   0   0   0   0   0   0   0   2   0   4   0   2   0   0   0
    0   0 170   2   3   0   0   0]
 [  1   5   0   0   0   1   0   0   0   0   0   0   0   1   0   0   0   0   1
    0   0   0 147   2   0   0   0]
 [  0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
    0   0   3   0 145   0   0   0]
 [  0   1   0   2   0   0   0   0   0   0   0   1   0   0   0   0   0   0   0
    0   0   0   0   0 150   0   0]
 [  1   0   0   1   0   0   0   0   0   0   0   0   0   0   0   0   0   0   0
    0   1   0   1   0   0 164   0]
 [  1   0   0   0   0   0   0   0   0   0   1   0   0   0   0   0   0   0   1
    4   0   0   0   0   0   0 125]]
```