ML- LAB - SVM Classifier Lab

NAME: Nilay Srivastava

SRN: PES2UG23CS390

Moon Data Set :

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SVM with LINEAR Kernel <PES2UG23CS390>
              precision    recall  f1-score   support

           0       0.85      0.89      0.87        75
           1       0.89      0.84      0.86        75

    accuracy                           0.87       150
   macro avg       0.87      0.87      0.87       150
weighted avg       0.87      0.87      0.87       150


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SVM with RBF Kernel <PES2UG23CS390>
              precision    recall  f1-score   support

           0       0.95      1.00      0.97        75
           1       1.00      0.95      0.97        75

    accuracy                           0.97       150
   macro avg       0.97      0.97      0.97       150
weighted avg       0.97      0.97      0.97       150


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SVM with POLY Kernel <PES2UG23CS390>
...
weighted avg       0.89      0.89      0.89       150


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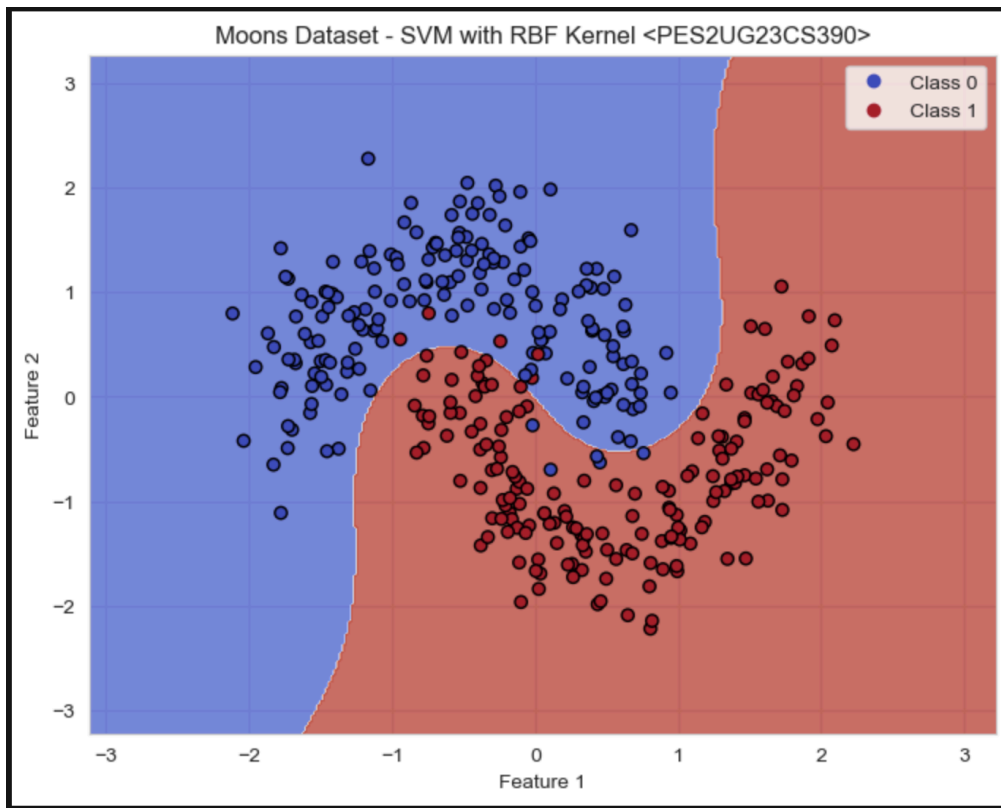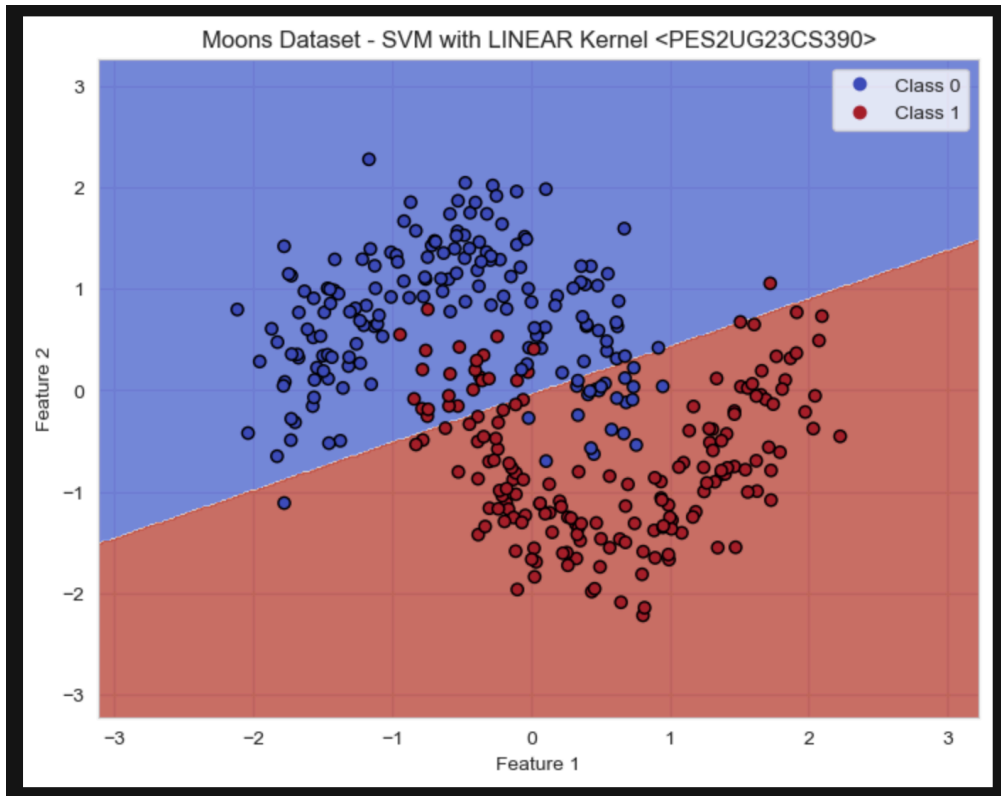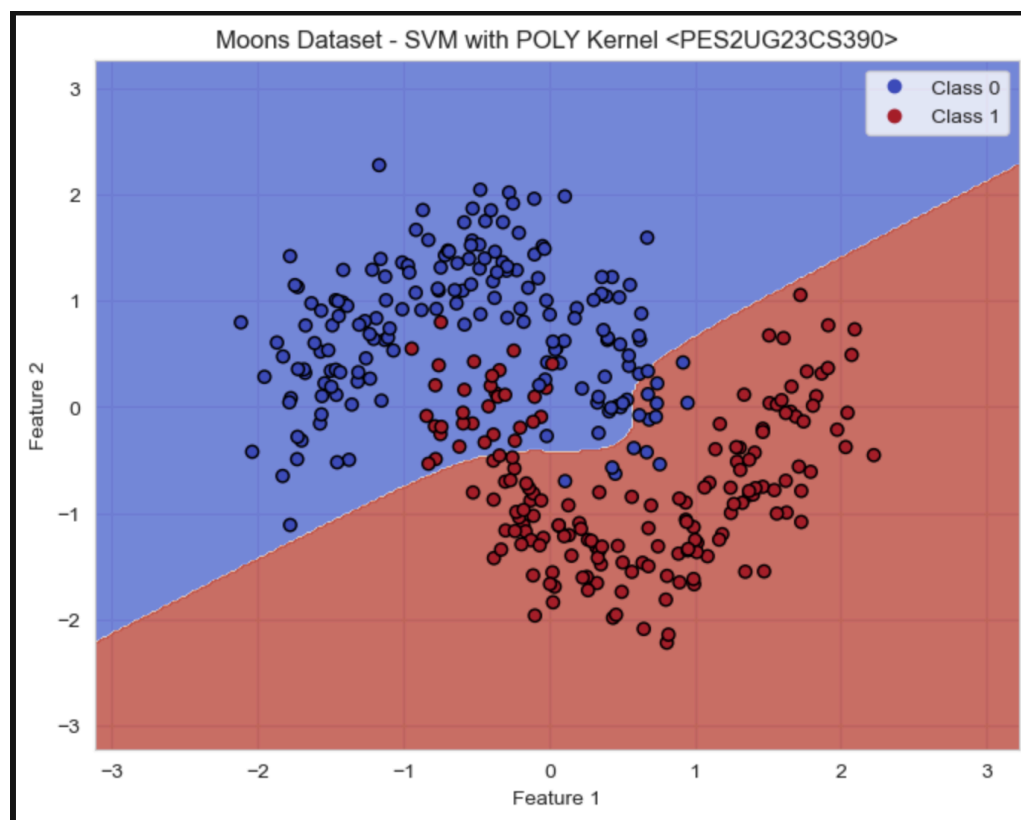
Moons Dataset - SVM with LINEAR Kernel <PES2UG23CS390>

Moons Dataset - SVM with RBF Kernel <PES2UG23CS390>

Moons Dataset - SVM with POLY Kernel <PES2UG23CS390>

Banknote Authentication

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SVM with LINEAR Kernel <PES2UG23CS390>
              precision    recall  f1-score   support

      Forged       0.90      0.88      0.89       229
     Genuine       0.86      0.88      0.87       183

    accuracy                           0.88       412
   macro avg       0.88      0.88      0.88       412
weighted avg       0.88      0.88      0.88       412


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SVM with RBF Kernel <PES2UG23CS390>
              precision    recall  f1-score   support

      Forged       0.96      0.91      0.94       229
     Genuine       0.90      0.96      0.93       183

    accuracy                           0.93       412
   macro avg       0.93      0.93      0.93       412
weighted avg       0.93      0.93      0.93       412


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SVM with POLY Kernel <PES2UG23CS390>
...
weighted avg       0.85      0.84      0.84       412


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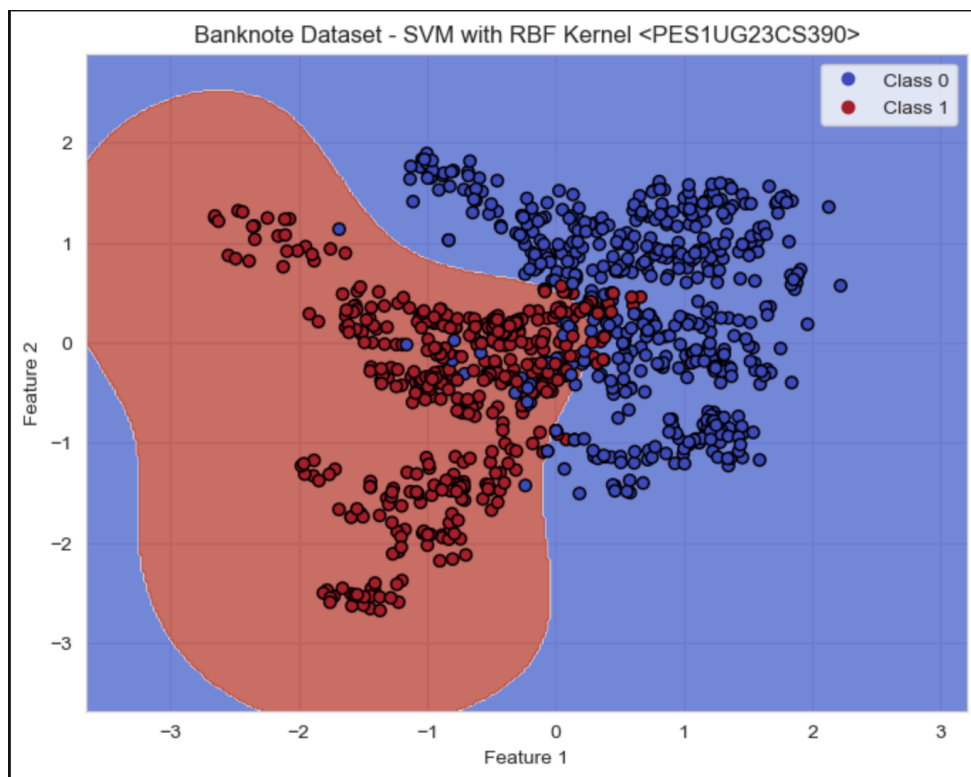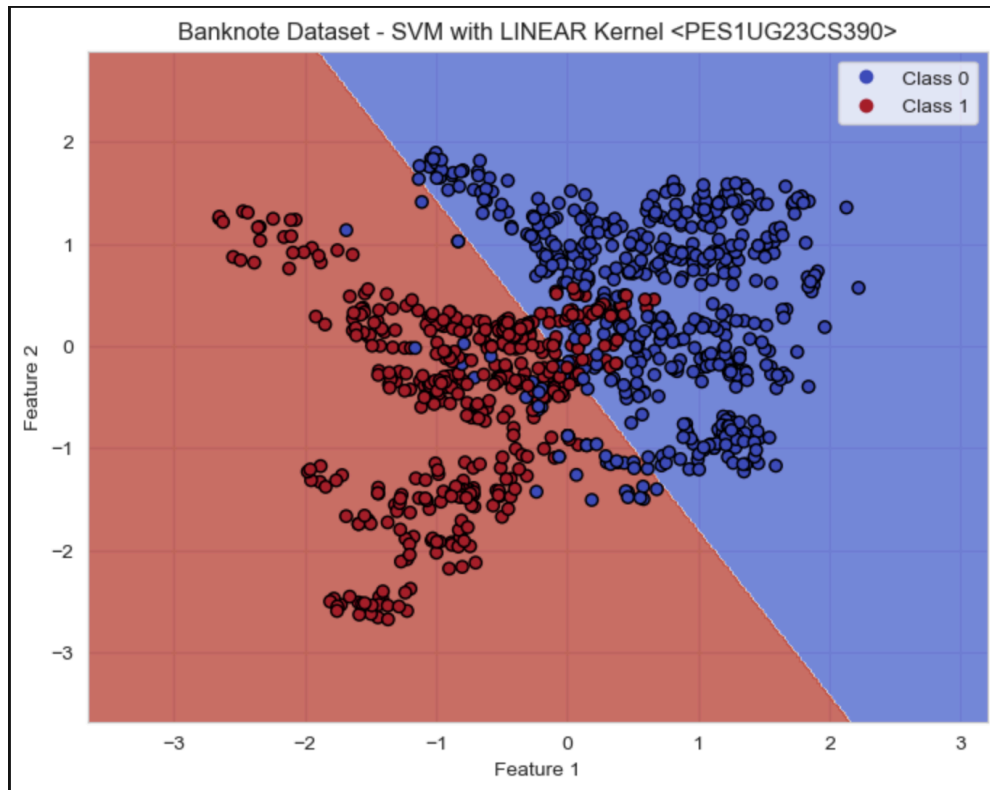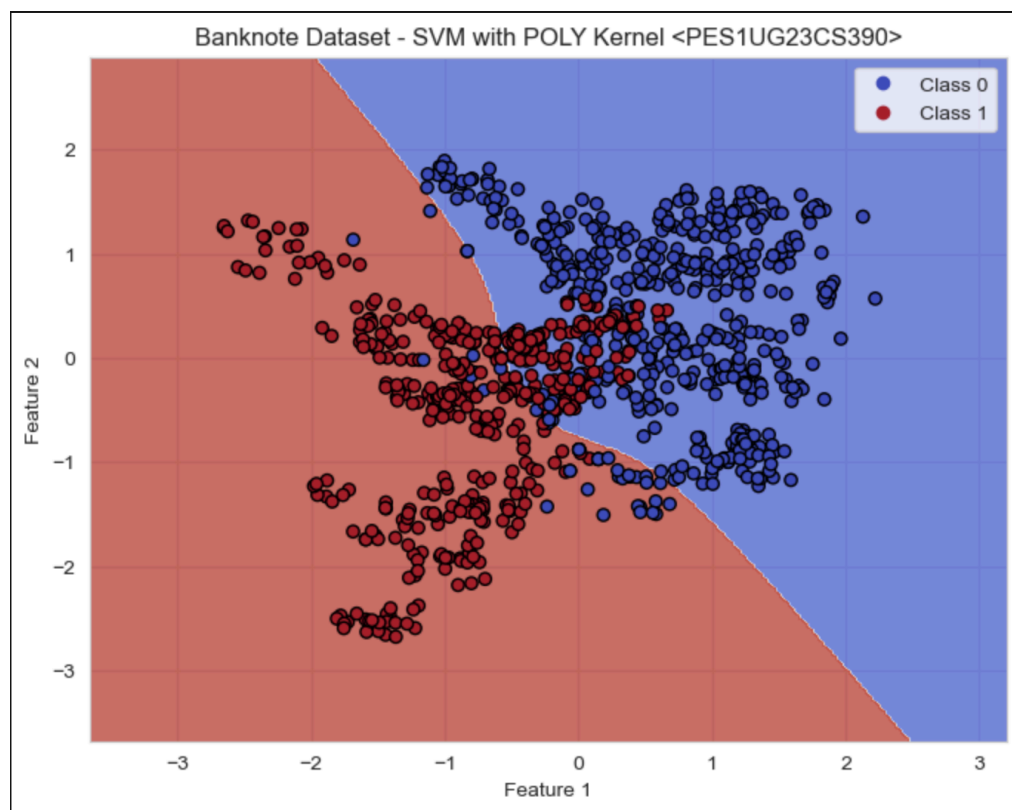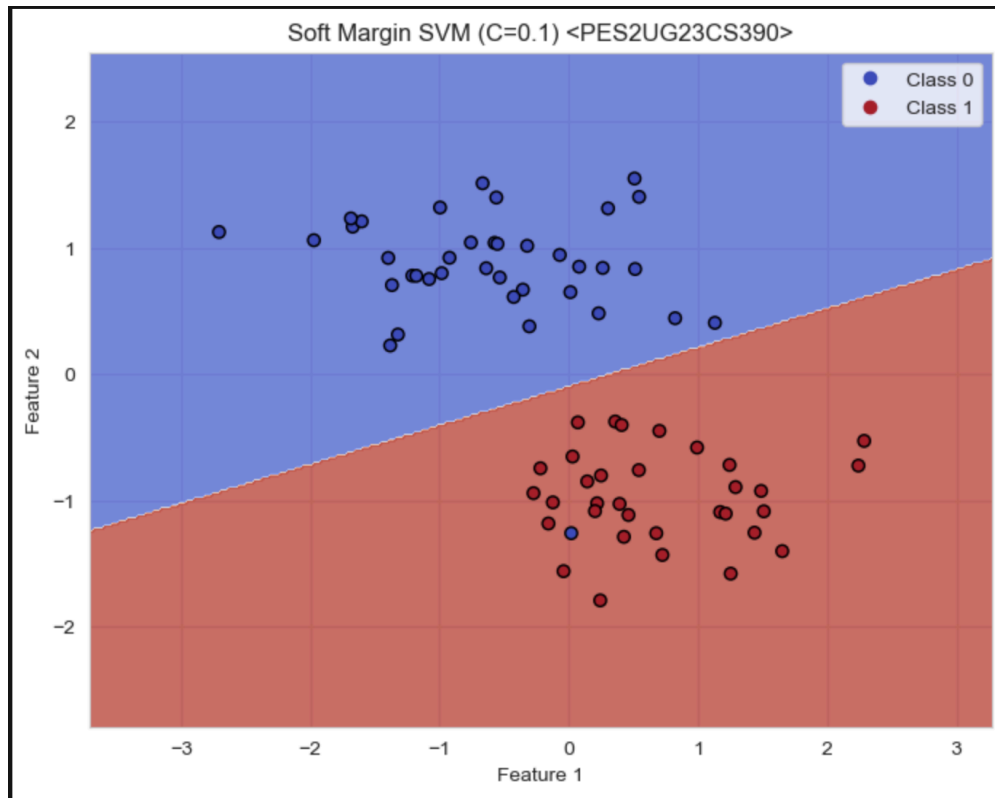
Banknote Dataset - SVM with LINEAR Kernel <PES1UG23CS390>

Banknote Dataset - SVM with RBF Kernel <PES1UG23CS390>

Banknote Dataset - SVM with POLY Kernel <PES1UG23CS390>

Hard and Soft Margin:

Soft Margin SVM (C=0.1) <PES2UG23CS390>

Hard Margin SVM (C=100) <PES2UG23CS390>