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advanced-ml-techniques - main.ipynb

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portal code > day2 > concept > 5. ML470_Sprint02_Support_Vector_Machines_Concept_Q5 > main.ipynb > def plot_moons_dataset(X, y):

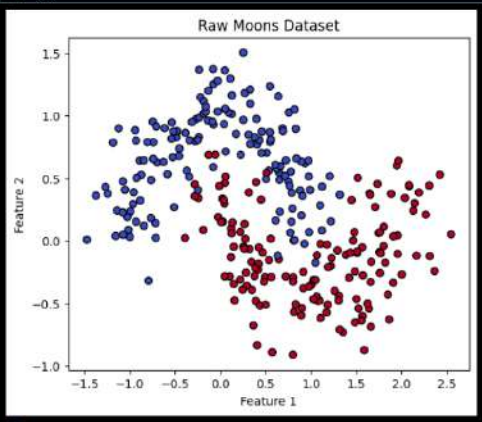
+ Code + Markdown | Run All | Restart | Clear All Outputs | Jupyter Variables | Outline ... .venv (Python 3.12.10)

```
X, y = make_moons(
    n_samples=300,
    noise=0.2,
    random_state=42
)
```

[4] ✓ 0.0s Python

```
plot_moons_dataset(X, y)
```

[5] ✓ 0.5s Python



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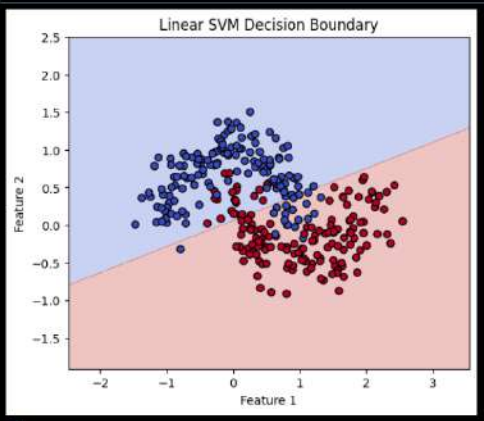
portal code > day2 > concept > 5. ML470_Sprint02_Support_Vector_Machines_Concept_Q5 > main.ipynb > def plot_moons_dataset(X, y):

+ Code + Markdown | Run All | Restart | Clear All Outputs | Jupyter Variables | Outline ... .venv (Python 3.12.10)

```
linear_svm = SVC(kernel='linear')
linear_svm.fit(X, y)

plot_svm_decision_boundary(
    linear_svm,
    X,
    y,
    title="Linear SVM Decision Boundary"
)
```

[6] ✓ 0.4s Python



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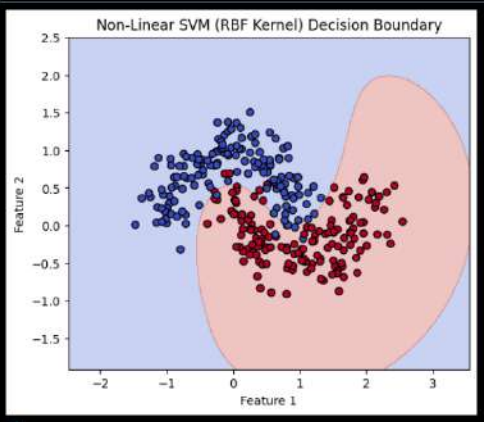
+ Code + Markdown | Run All | Restart | Clear All Outputs | Jupyter Variables | Outline ... .venv (Python 3.12.10)

```
rbf_svm = SVC(kernel='rbf', gamma='scale')
rbf_svm.fit(X, y)

plot_svm_decision_boundary(
    rbf_svm,
    X,
    y,
    title="Non-Linear SVM (RBF Kernel) Decision Boundary"
)
```

[7] ✓ 1.2s Python



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