Real-World Cases and Implementation

Applications:

Spam Detection Medical Diagnosis Credit Scoring

Scikit-learn Implementation:

```
LogisticRegression(
    penalty='l2',
    C=1.0
)
```

Key Hyperparameters:

Regularization (C)

Solver

max_iter

Evaluation Metrics:

Accuracy Precision

Recall F1-score

ROC-AUC

Important Considerations:

Class imbalance: Use class_weight='balanced'

Feature scaling: Standardize for better convergence

Best Practices:

Cross-validation Calibration Threshold tuning