**Model Comparison: Logistic Regression vs SVC**

**1. Overall Accuracy**

Logistic Regression achieved 95% accuracy, whereas SVC achieved 90% accuracy.

This indicates that Logistic Regression is slightly better at correctly predicting the overall sentiment of the reviews.

**2. Class-wise Performance**

Negative reviews:

LR: 0.93 precision, 0.73 recall → more balanced.

SVC: 0.96 precision, 0.42 recall → very precise but misses many negatives.

Neutral reviews:

LR: 0.88 precision, 0.63 recall → better balance between detecting neutrals and avoiding false positives.

SVC: 0.83 precision, 0.32 recall → underpredicts neutral sentiment.

Positive reviews:

Both models perform well due to class imbalance (most reviews are positive).

LR: 0.95 precision, 0.99 recall → slightly better than SVC.

**3. F1-Score Analysis**

LR shows macro avg F1-score of 0.84, SVC only 0.67 → LR better captures minority classes (Negative & Neutral).

Weighted avg F1-score: LR 0.94 vs SVC 0.88 → LR is more reliable overall.

**4. Confusion Matrix Insights**

LR misclassifies fewer Negative and Neutral reviews.

SVC tends to overpredict Positive and underdetect Neutral and Negative classes, likely due to class imbalance and kernel choice.

**5. Interpretation**

Logistic Regression is more balanced and reliable across all classes.

SVC is highly precise for Positive reviews but struggles with minority classes, likely overfitting the majority Positive class.

**6. Conclusion**

Logistic Regression outperforms SVC in this dataset because it better balances predictions across Positive, Neutral, and Negative sentiments, especially for minority classes. SVC achieves high precision for Positive reviews but fails to detect enough Negative and Neutral reviews, making Logistic Regression the preferred model for multi-class sentiment classification on imbalanced text data.