

```
import matplotlib.pyplot as plt  
from sklearn.metrics import confusion_matrix, classification_report, roc_curve, auc  
import itertools
```

#change the variable names as used in your code

```
y_pred_test_labels = (test_x_pred > 0.5).float()
cm = confusion_matrix(y_test, y_pred_test_labels)
plt.figure(figsize=(6, 6))
plt.imshow(cm, interpolation='nearest', cmap=plt.cm.Blues)
plt.title('Confusion Matrix')
plt.colorbar()
tick_marks = range(2)
plt.xticks(tick_marks, ['Loss', 'Win'], rotation=45)
plt.yticks(tick_marks, ['Loss', 'Win'])
thresh = cm.max() / 2
for i, j in itertools.product(range(cm.shape[0]), range(cm.shape[1])):
    plt.text(j, i, cm[i, j], horizontalalignment="center", color="white" if cm[i, j] > thresh else "black")

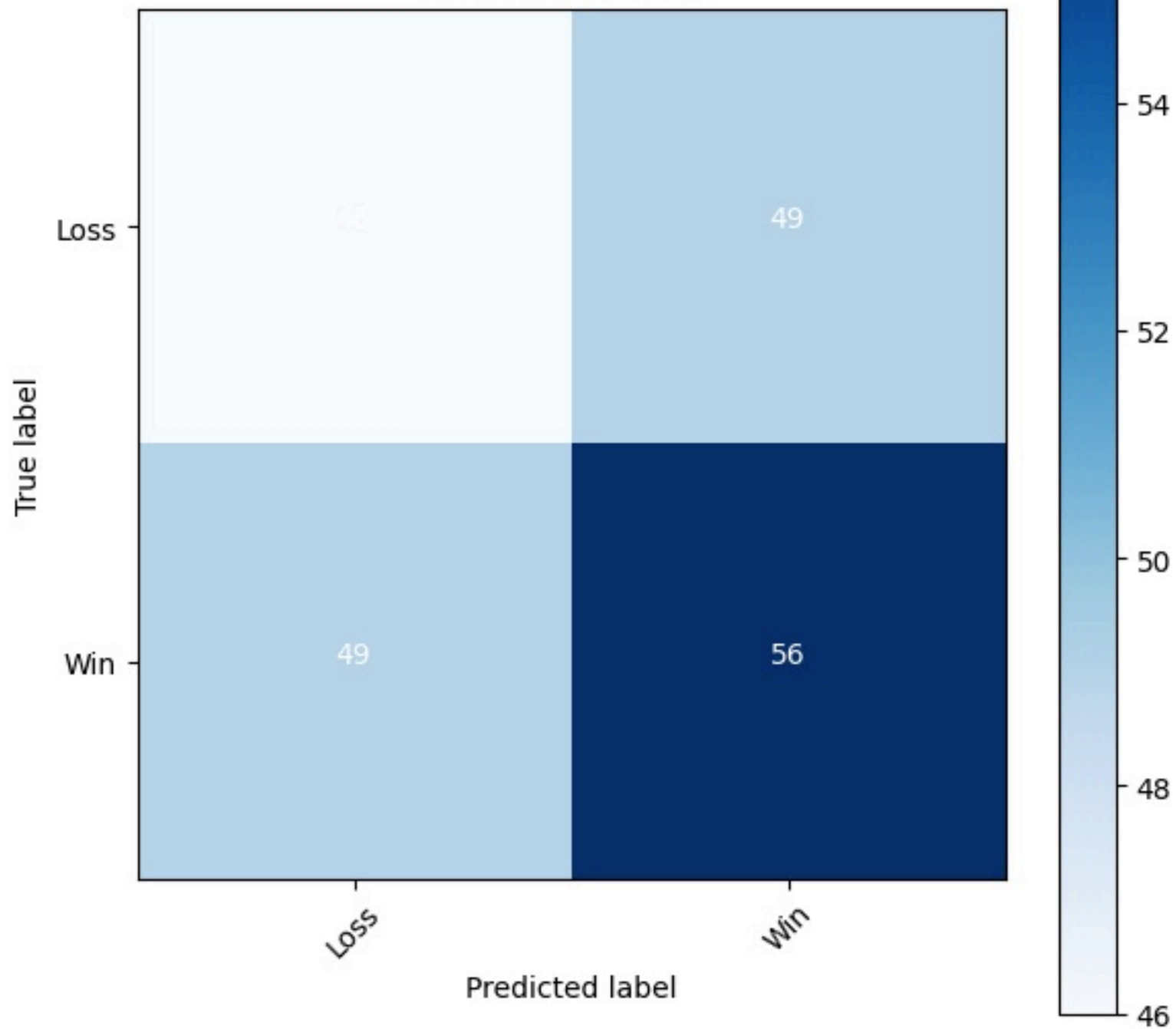
plt.tight_layout()
plt.ylabel('True label')
plt.xlabel('Predicted label')
plt.show()

# Print classification report
print("Classification Report:\n", classification_report(y_test, y_pred_test_labels, target_names=['Loss', 'Win']))

# Plot ROC curve
fpr, tpr, thresholds = roc_curve(y_test, test_x_pred)
roc_auc = auc(fpr, tpr)
plt.figure()
plt.plot(fpr, tpr, color='darkorange', lw=2, label=f'ROC curve (area = {roc_auc:.2f})')
plt.plot([0, 1], [0, 1], color='navy', lw=2, linestyle='--')
plt.xlim([0.0, 1.0])
plt.ylim([0.0, 1.05])
plt.xlabel('False Positive Rate')
plt.ylabel('True Positive Rate')
plt.title('Receiver Operating Characteristic (ROC)')
plt.legend(loc="lower right")
plt.show()
```

Collapse Output

Confusion Matrix



Classification Report:

	precision	recall	f1-score	support
Loss	0.48	0.48	0.48	95
Win	0.53	0.53	0.53	105
accuracy			0.51	200
macro avg	0.51	0.51	0.51	200
weighted avg	0.51	0.51	0.51	200

Receiver Operating Characteristic (ROC)

