

LEVEL 2: INTERMEDIATE TASKS

Task 1: Regression (Stock Prices - Predict Close from Open)

```
In [2]: import pandas as pd
# Check actual column names

df = pd.read_csv("stock_prices_cleaned.csv")
# Use actual column names based on the print above
X = df[['open']] # <-- adjust if needed
y = df['close']  # <-- adjust if needed

# Proceed as usual
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression
from sklearn.metrics import r2_score, mean_squared_error

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

model = LinearRegression()
model.fit(X_train, y_train)

y_pred = model.predict(X_test)

print("R² Score:", r2_score(y_test, y_pred))
print("MSE:", mean_squared_error(y_test, y_pred))
```

R² Score: 0.9997557128611664

MSE: 2.5520126539477554

In []: