Spyder (Python 3.12)

File Edit Selection View Go ML

EXPLORER

ML

slr.py

tempCodeRunnerFile.py

Figure 1

(x, y) = (8.57, 4.21e+04)


```
[Done] exited with code=0 in 2.972 seconds

[Running] python -u "c:\Users\DELL\Desktop\VS_code\ML\tempCodeRunnerFile.py"
```

CHAT

Build with agent mode.

AI responses may be inaccurate.

Add Context... slr.py:1-66

Add context (#), extensions (@), com

Agent

OUTLINE

TIMELINE

27°C Mostly cloudy ENG 12:53 PM

Spyder (Python 3.12)

File Edit Selection View Go ML

EXPLORER

ML

slr.py

tempCodeRunnerFile.py

Figure 1

(x, y) = (9.36, 7.80e+04)


```
[Done] exited with code=0 in 2.972 seconds

[Running] python -u "c:\Users\DELL\Desktop\VS_code\ML\tempCodeRunnerFile.py"
```

CHAT

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Add Context... slr.py:1-66

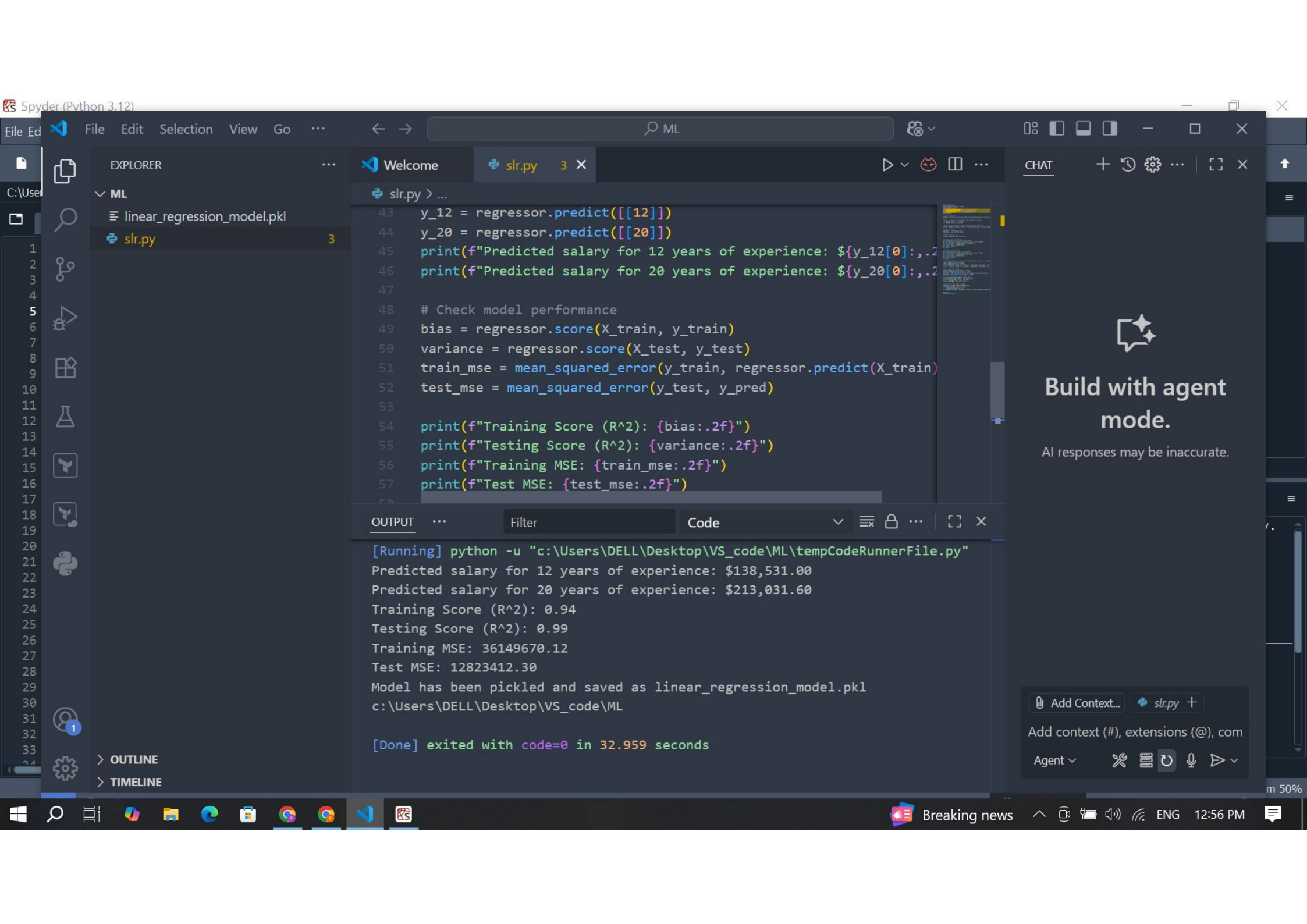
Add context (#), extensions (@), com

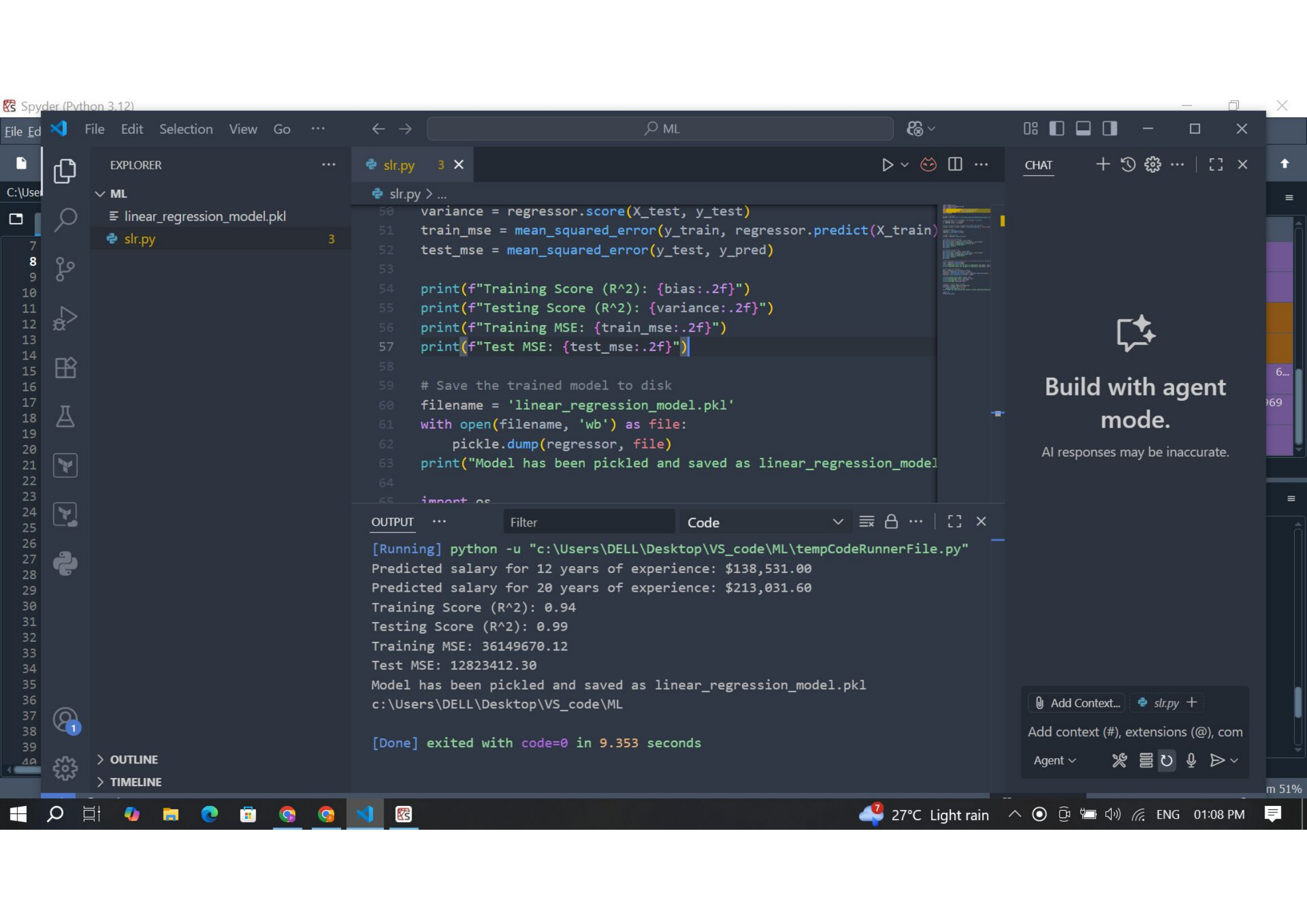
Agent

OUTLINE

TIMELINE

27°C Mostly cloudy ENG 12:54 PM


Spyder (Python 3.12)
File Edit Selection View Go
ML
EXPLORER
ML
linear_regression_model.pkl
slr.py 3
Welcome
slr.py 3
slr.py > ...
y_12 = regressor.predict([[12]])
y_20 = regressor.predict([[20]])
print(f"Predicted salary for 12 years of experience: ${y_12[0]:,.2
print(f"Predicted salary for 20 years of experience: ${y_20[0]:,.2
# Check model performance
bias = regressor.score(X_train, y_train)
variance = regressor.score(X_test, y_test)
train_mse = mean_squared_error(y_train, regressor.predict(X_train)
test_mse = mean_squared_error(y_test, y_pred)
print(f"Training Score (R^2): {bias:.2f}")
print(f"Testing Score (R^2): {variance:.2f}")
print(f"Training MSE: {train_mse:.2f}")
print(f"Test MSE: {test_mse:.2f}")
OUTPUT
Filter
Code
[Running] python -u "c:\Users\DELL\Desktop\VS_code\ML\tempCodeRunnerFile.py"
Predicted salary for 12 years of experience: $138,531.00
Predicted salary for 20 years of experience: $213,031.60
Training Score (R^2): 0.94
Testing Score (R^2): 0.99
Training MSE: 36149670.12
Test MSE: 12823412.30
Model has been pickled and saved as linear_regression_model.pkl
c:\Users\DELL\Desktop\VS_code\ML
[Done] exited with code=0 in 32.959 seconds
OUTLINE
TIMELINE
CHAT
Build with agent mode.
AI responses may be inaccurate.
Add Context...
slr.py
Add context (#), extensions (@), com
Agent
Breaking news
ENG
12:56 PM


Spyder (Python 3.12)
File Edit Selection View Go
ML
EXPLORER
ML
linear_regression_model.pkl
slr.py 3
slr.py 3
slr.py > ...
variance = regressor.score(X_test, y_test)
train_mse = mean_squared_error(y_train, regressor.predict(X_train))
test_mse = mean_squared_error(y_test, y_pred)
print(f"Training Score (R^2): {bias:.2f}")
print(f"Testing Score (R^2): {variance:.2f}")
print(f"Training MSE: {train_mse:.2f}")
print(f"Test MSE: {test_mse:.2f}")
# Save the trained model to disk
filename = 'linear_regression_model.pkl'
with open(filename, 'wb') as file:
pickle.dump(regressor, file)
print("Model has been pickled and saved as linear_regression_model
OUTPUT
Filter
Code
[Running] python -u "c:\Users\DELL\Desktop\VS_code\ML\tempCodeRunnerFile.py"
Predicted salary for 12 years of experience: $138,531.00
Predicted salary for 20 years of experience: $213,031.60
Training Score (R^2): 0.94
Testing Score (R^2): 0.99
Training MSE: 36149670.12
Test MSE: 12823412.30
Model has been pickled and saved as linear_regression_model.pkl
c:\Users\DELL\Desktop\VS_code\ML
[Done] exited with code=0 in 9.353 seconds
CHAT
Build with agent mode.
AI responses may be inaccurate.
Add Context...
slr.py
Add context (#), extensions (@), com
Agent
OUTLINE
TIMELINE
27°C Light rain
ENG
01:08 PM