In [1]:

```
import numpy as np
from sklearn.linear_model import LinearRegression
from sklearn.model_selection import train_test_split
from sklearn.metrics import mean_squared_error
# Simple dataset (features: Area (sqft), Number of Rooms, Age (years
# Example data
X = np.array([
    [1000, 2, 10],  # Area: 1000 sqft, Rooms: 2, Age: 10 years
    [1500, 3, 5],   # Area: 1500 sqft, Rooms: 3, Age: 5 years
    [2000, 4, 1],   # Area: 2000 sqft, Rooms: 4, Age: 1 year
    [2500, 5, 15],  # Area: 2500 sqft, Rooms: 5, Age: 15 years
    [3000, 6, 8]    # Area: 3000 sqft, Rooms: 6, Age: 8 years
])
y = np.array([1200, 1800, 2400, 3000, 3600])  # Corresponding rents
# Split the dataset into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=
# Create and train the model
model = LinearRegression()
model.fit(X_train, y_train)
# Get user input
area = float(input("Enter the area of the house in square feet: "))
rooms = int(input("Enter the number of rooms in the house: "))
age = float(input("Enter the age of the house in years: "))
# Make a prediction
predicted_rent = model.predict([[area, rooms, age]])
print(f"Predicted rent for a house with {area} sqft, {rooms} rooms, 
# Evaluate the model on the test set
y_pred = model.predict(X_test)
mse = mean_squared_error(y_test, y_pred)
print(f"Mean Squared Error on the test set: {mse:.2f}")
```

```
Enter the area of the house in square feet: 2000
Enter the number of rooms in the house: 4
Enter the age of the house in years: 1
Predicted rent for a house with 2000.0 sqft, 4 rooms, and age 1.0 years is: $2400.00
Mean Squared Error on the test set: 0.00
```