In [1]:
```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_squared_error
```

In [2]:
```
# Load the dataset (replace with actual file path)
data = pd.read_csv(r"C:\Users\ACER\Downloads\train.csv")
```

In [3]:
```
# Select relevant features
X = data[["GrLivArea", "BedroomAbvGr", "FullBath"]]
y = data["SalePrice"]
```

In [4]:
```
# Split data into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3, random_state=58)
```

In [5]:
```
# Initialize and train the linear regression model
model = LinearRegression()
model.fit(X_train, y_train)
```

Out[5]:
```
LinearRegression()
```

In [6]:
```
# Make predictions
y_pred = model.predict(X_test)
```

In [7]:
```
# Evaluate the model
rmse = mean_squared_error(y_test, y_pred, squared= False)
print(f"Root Mean Squared Error: {rmse:.2f}")
```

```
Root Mean Squared Error: 51464.06
```

In [8]:
```
#prediction for a new house
new_house = pd.DataFrame([[2000, 3, 2]], columns=["GrLivArea", "BedroomAbvGr", "FullBath"])
predicted_price = model.predict(new_house)
print(f"Predicted price for the new house: ${predicted_price[0]:,.2f}")
```

```
Predicted price for the new house: $240,333.29
```

In [9]:
```
#prediction for a new house
new_house_01 = pd.DataFrame([[2300, 3, 3]], columns=["GrLivArea", "BedroomAbvGr", "FullBath"])
predicted_price_01 = model.predict(new_house_01)
print(f"Predicted price for the new house: ${predicted_price_01[0]:,.2f}")
```

```
Predicted price for the new house: $302,265.14
```

In [10]:
```
#prediction for a new house
new_house_02 = pd.DataFrame([[3000, 5, 4]], columns=["GrLivArea", "BedroomAbvGr", "FullBath"])
predicted_price_02 = model.predict(new_house_02)
print(f"Predicted price for the new house: ${predicted_price_02[0]:,.2f}")
```

```
Predicted price for the new house: $351,983.10
```

In [13]:
```
#prediction for a new house
new_house_02 = pd.DataFrame([[4000, 9, 8]], columns=["GrLivArea", "BedroomAbvGr", "FullBath"])
predicted_price_02 = model.predict(new_house_02)
print(f"Predicted price for the new house: ${predicted_price_02[0]:,.2f}")
```

```
Predicted price for the new house: $472,155.51
```

In [ ]:
```

```