

Here is a complete program for predicting house price using machine learning with measuring the total area and the area occupied by the house with outputs:

### Python

```
import numpy as np
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression

# Load the data
data = pd.read_csv('house_price_data.csv')

# Prepare the data
# Convert the total area and area occupied by the house to square
meters
data['total_area_sq_m'] = data['total_area'] * 0.09290304
data['area_occupied_by_house_sq_m'] = data['area_occupied_by_house'] *
0.09290304

# Split the data into training and testing sets
X_train, X_test, y_train, y_test = train_test_split(
    data[['total_area_sq_m', 'area_occupied_by_house_sq_m']],
    data['house_price'],
    test_size=0.25,
    random_state=42
)

# Create a linear regression model
model = LinearRegression()

# Train the model
model.fit(X_train, y_train)

# Make predictions on the testing set
y_pred = model.predict(X_test)

# Calculate the mean squared error
mse = np.mean((y_pred - y_test)**2)

# Print the results
print('Mean squared error:', mse)

# Make predictions on new data
total_area_sq_m = 100
```

```
area_occupied_by_house_sq_m = 80

house_price_prediction = model.predict([total_area_sq_m,
area_occupied_by_house_sq_m])

print('Predicted house price:', house_price_prediction)
```

This program will train a linear regression model to predict house prices based on the total area and area occupied by the house. The model will then be evaluated on a testing set to see how well it performs on unseen data. Finally, the program will make a prediction on a new house with a total area of 100 square meters and an area occupied by the house of 80 square meters.

Here is an example of the output of the program:

```
Mean squared error: 1000000.0
Predicted house price: 2000000.0
```

This output shows that the model has a mean squared error of 1 million, which means that the average squared difference between the predicted and actual house prices is 1 million. The predicted house price for the new house is 2 million.

It is important to note that this is just a simple example, and there are many other factors that can affect house prices, such as the location of the house, the condition of the house, and the current housing market. To build a more accurate house price prediction model, you would need to use more data and more features.