

```
index.html x app.py C:\...Desktop .git house_price_prediction.pkl app.py \ app.py C:\...Yashvi Gor
templates > index.html > html > body > form > br
2 <html>
6 <body>
8 <form action="/predict" method="post">
29 <input type="text" name="AGE"><br>
30
31 <label>DIS:</label><br>
32 <input type="text" name="DIS"><br>
33
34 <label>RAD:</label><br>
35 <input type="text" name="RAD"><br>
36
37 <label>TAX:</label><br>
38 <input type="text" name="TAX"><br>
39
40 <label>PTRATIO:</label><br>
41 <input type="text" name="PTRATIO"><br>
42
43 <label>B:</label><br>
44 <input type="text" name="B"><br>
45
46 <label>LSTAT:</label><br>
47 <input type="text" name="LSTAT"><br>
48
49 <br>
50 <input type="submit" value="Predict">
51
52 </form>
53
54 {% if prediction_text %}
55 <h3>{{ prediction_text }}</h3>
56 {% endif %}
```

```
File Edit Selection View Go Run ... Housefileprediction
EXPLORER
HOUSEFILEPREDICTION
  templates
  index.html
  venv
  _pycache_
  scripts
  templates
  _init_.py
  _main_.py
  app.py
  house_price_prediction.pkl
  OUTLINE
  TIMELINE
venv > _init_.py > ...
1 """
2 Virtual environment (venv) package for Python. Based on PEP 405.
3
4 Copyright (C) 2011-2014 Vinay Sajip.
5 Licensed to the PSF under a contributor agreement.
6 """
7 import logging
8 import os
9 import shutil
10 import subprocess
11 import sys
12 import sysconfig
13 import types
14 import shlex
15
16
17 CORE_VENV_DEPS = ('pip', 'setuptools')
18 logger = logging.getLogger(__name__)
19
20
21 class EnvBuilder:
22     """
23     This class exists to allow virtual environment creation to be
24     customized. The constructor parameters determine the builder's
25     behaviour when called upon to create a virtual environment.
26
27     By default, the builder makes the system (global) site-packages dir
28     *un*available to the created environment.
29
30     If invoked using the Python -m option, the default is to use copying
31     on Windows platforms but symlinks elsewhere. If instantiated some
32     other way, the default is to *not* use symlinks.
```

The screenshot shows the Visual Studio Code editor interface. The Explorer panel on the left displays the project structure for 'HOUSEFILEPREDICTION', including folders for 'templates', 'venv', and files like 'index.html', 'app.py', and 'house\_price\_prediction.pkl'. The file '\_main\_.py' is selected and open in the editor. The code in '\_main\_.py' is as follows:

```
1 import sys
2 from . import main
3
4 rc = 1
5 try:
6     main()
7     rc = 0
8 except Exception as e:
9     print('Error: %s' % e, file=sys.stderr)
10 sys.exit(rc)
11
```

The status bar at the bottom indicates the current position is 'Ln 1, Col 1' with 'Spaces: 4', 'UTF-8' encoding, 'LF' line endings, and 'Python' language. The system tray shows the time as 21:40 on 13-06-2025.

The screenshot shows the Visual Studio Code editor interface with the 'app.py' file open. The Explorer panel on the left shows the project structure, with 'app.py' selected. The code in 'app.py' is as follows:

```
1 from flask import Flask, render_template, request
2 import pickle
3 import numpy as np
4
5 app = Flask(__name__)
6
7 with open('house_price_prediction.pkl', 'rb') as f:
8     model = pickle.load(f)
9
10 @app.route('/')
11 def home():
12     return render_template('index.html')
13
14 @app.route('/predict', methods=['POST'])
15 def predict():
16     features = [
17         float(request.form['CRIM']),
18         float(request.form['ZN']),
19         float(request.form['INDUS']),
20         float(request.form['CHAS']),
21         float(request.form['NOX']),
22         float(request.form['RM']),
23         float(request.form['AGE']),
24         float(request.form['DIS']),
25         float(request.form['RAD']),
26         float(request.form['TAX']),
27         float(request.form['PTRATIO']),
28         float(request.form['B']),
29         float(request.form['LSTAT']),
30     ]
31     features_array = np.array([features])
```

The status bar at the bottom indicates the current position is 'Ln 1, Col 1' with 'Spaces: 4', 'UTF-8' encoding, 'CRLF' line endings, and 'Python' language. The system tray shows the time as 21:40 on 13-06-2025.

File Edit Selection View Go Run ... Search

boston.csv

C:\Users\Yashvi Gor\Downloads> boston.csv

```
1 CRIM, ZN, INDUS, CHAS, NOX, RM, AGE, DIS, RAD, TAX, PTRATIO, B, LSTAT, MEDV
2 0.00632, 18.00, 2.310, 0, 0.5380, 6.5750, 65.20, 4.0900, 1, 296.0, 15.30, 396.90, 4.98, 24.00
3 0.02731, 0.00, 7.070, 0, 0.4690, 6.4210, 78.90, 4.9671, 2, 242.0, 17.80, 396.90, 9.14, 21.60
4 0.02729, 0.00, 7.070, 0, 0.4690, 7.1850, 61.10, 4.9671, 2, 242.0, 17.80, 392.83, 4.03, 34.70
5 0.03237, 0.00, 2.180, 0, 0.4580, 6.9980, 45.80, 6.0622, 3, 222.0, 18.70, 394.63, 2.94, 33.40
6 0.06905, 0.00, 2.180, 0, 0.4580, 7.1470, 54.20, 6.0622, 3, 222.0, 18.70, 396.90, 5.33, 36.20
7 0.02985, 0.00, 2.180, 0, 0.4580, 6.4300, 58.70, 6.0622, 3, 222.0, 18.70, 394.12, 5.21, 28.70
8 0.08829, 12.50, 7.870, 0, 0.5240, 6.0120, 66.60, 5.5605, 5, 311.0, 15.20, 395.60, 12.43, 22.90
9 0.14455, 12.50, 7.870, 0, 0.5240, 6.1720, 96.10, 5.9505, 5, 311.0, 15.20, 396.90, 19.15, 27.10
10 0.21124, 12.50, 7.870, 0, 0.5240, 5.6310, 100.00, 6.0821, 5, 311.0, 15.20, 386.63, 29.93, 16.50
11 0.17004, 12.50, 7.870, 0, 0.5240, 6.0040, 85.90, 6.5921, 5, 311.0, 15.20, 386.71, 17.10, 18.90
12 0.22489, 12.50, 7.870, 0, 0.5240, 6.3770, 94.30, 6.3467, 5, 311.0, 15.20, 392.52, 20.45, 15.00
13 0.11747, 12.50, 7.870, 0, 0.5240, 6.0090, 82.90, 6.2267, 5, 311.0, 15.20, 396.90, 13.27, 18.90
14 0.09378, 12.50, 7.870, 0, 0.5240, 5.8890, 39.00, 5.4509, 5, 311.0, 15.20, 390.50, 15.71, 21.70
15 0.62976, 0.00, 8.140, 0, 0.5380, 5.9490, 61.80, 4.7075, 4, 307.0, 21.00, 396.90, 8.26, 20.40
16 0.63796, 0.00, 8.140, 0, 0.5380, 6.0960, 84.50, 4.4619, 4, 307.0, 21.00, 388.02, 10.26, 18.20
17 0.62739, 0.00, 8.140, 0, 0.5380, 5.8340, 56.50, 4.4986, 4, 307.0, 21.00, 395.62, 8.47, 19.90
18 1.05393, 0.00, 8.140, 0, 0.5380, 5.9350, 29.30, 4.4986, 4, 307.0, 21.00, 386.85, 6.58, 23.10
19 0.78420, 0.00, 8.140, 0, 0.5380, 5.9900, 81.70, 4.2579, 4, 307.0, 21.00, 386.75, 14.67, 17.50
20 0.80271, 0.00, 8.140, 0, 0.5380, 5.4560, 36.60, 3.7965, 4, 307.0, 21.00, 288.99, 11.69, 20.20
21 0.72580, 0.00, 8.140, 0, 0.5380, 5.7270, 69.50, 3.7965, 4, 307.0, 21.00, 390.95, 11.28, 18.20
22 1.25179, 0.00, 8.140, 0, 0.5380, 5.5700, 98.10, 3.7979, 4, 307.0, 21.00, 376.57, 21.02, 13.60
23 0.85204, 0.00, 8.140, 0, 0.5380, 5.9650, 89.20, 4.0123, 4, 307.0, 21.00, 392.53, 13.83, 19.60
24 1.23247, 0.00, 8.140, 0, 0.5380, 6.1420, 91.70, 3.9769, 4, 307.0, 21.00, 396.90, 18.72, 15.20
25 0.98843, 0.00, 8.140, 0, 0.5380, 5.8130, 100.00, 4.0952, 4, 307.0, 21.00, 394.54, 19.88, 14.50
26 0.75026, 0.00, 8.140, 0, 0.5380, 5.9240, 94.10, 4.3996, 4, 307.0, 21.00, 394.33, 16.30, 15.60
27 0.84054, 0.00, 8.140, 0, 0.5380, 5.5990, 85.70, 4.4546, 4, 307.0, 21.00, 303.42, 16.51, 13.90
28 0.67191, 0.00, 8.140, 0, 0.5380, 5.8130, 90.30, 4.6820, 4, 307.0, 21.00, 376.88, 14.81, 16.60
29 0.95577, 0.00, 8.140, 0, 0.5380, 6.0470, 88.80, 4.4534, 4, 307.0, 21.00, 306.38, 17.28, 14.80
30 0.77299, 0.00, 8.140, 0, 0.5380, 6.4950, 94.40, 4.4547, 4, 307.0, 21.00, 387.94, 12.80, 18.40
31 1.00245, 0.00, 8.140, 0, 0.5380, 6.6740, 87.30, 4.2390, 4, 307.0, 21.00, 380.23, 11.98, 21.00
32 1.13081, 0.00, 8.140, 0, 0.5380, 5.7130, 94.10, 4.2330, 4, 307.0, 21.00, 360.17, 22.60, 12.70
```

Ln 1, Col 1 Spaces: 4 UTF-8 LF Plain Text

House\_Price\_Prediction.ipynb

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House\_Price\_Prediction.ipynb

File Edit View Insert Runtime Tools Help

Q Commands + Code + Text Run all

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression
from sklearn import metrics
from xgboost import XGBRegressor
```

Double-click (or enter) to edit

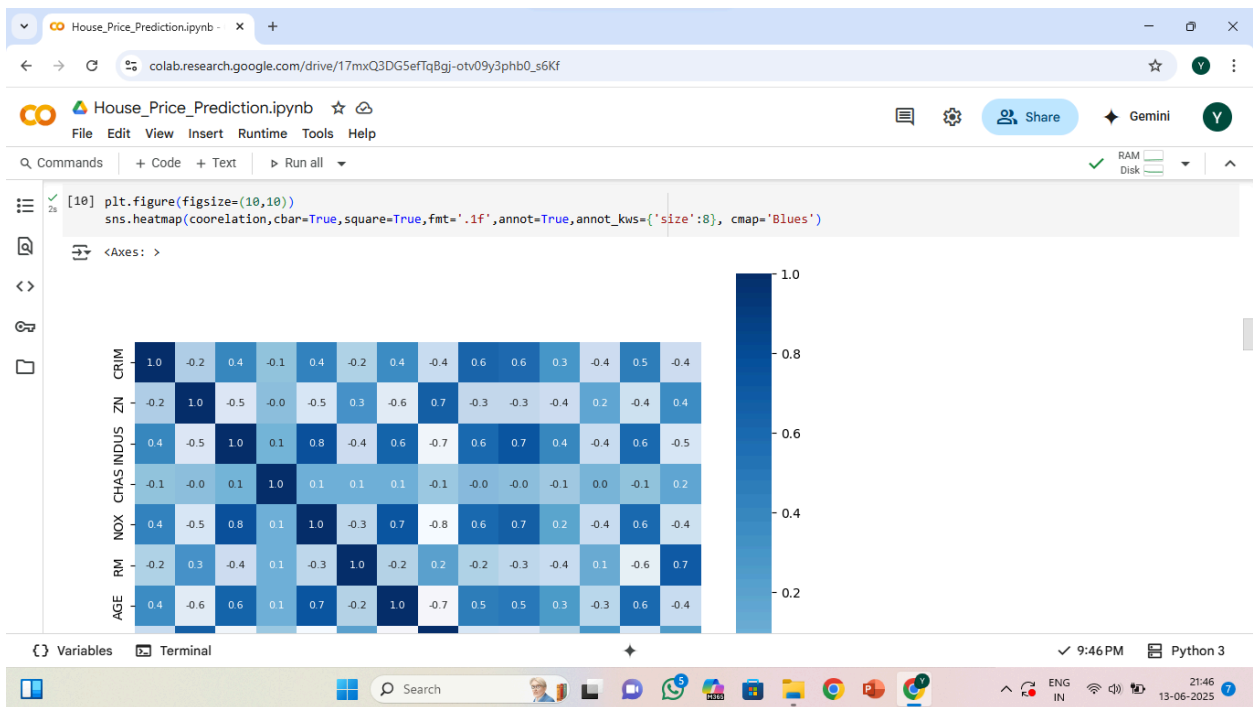
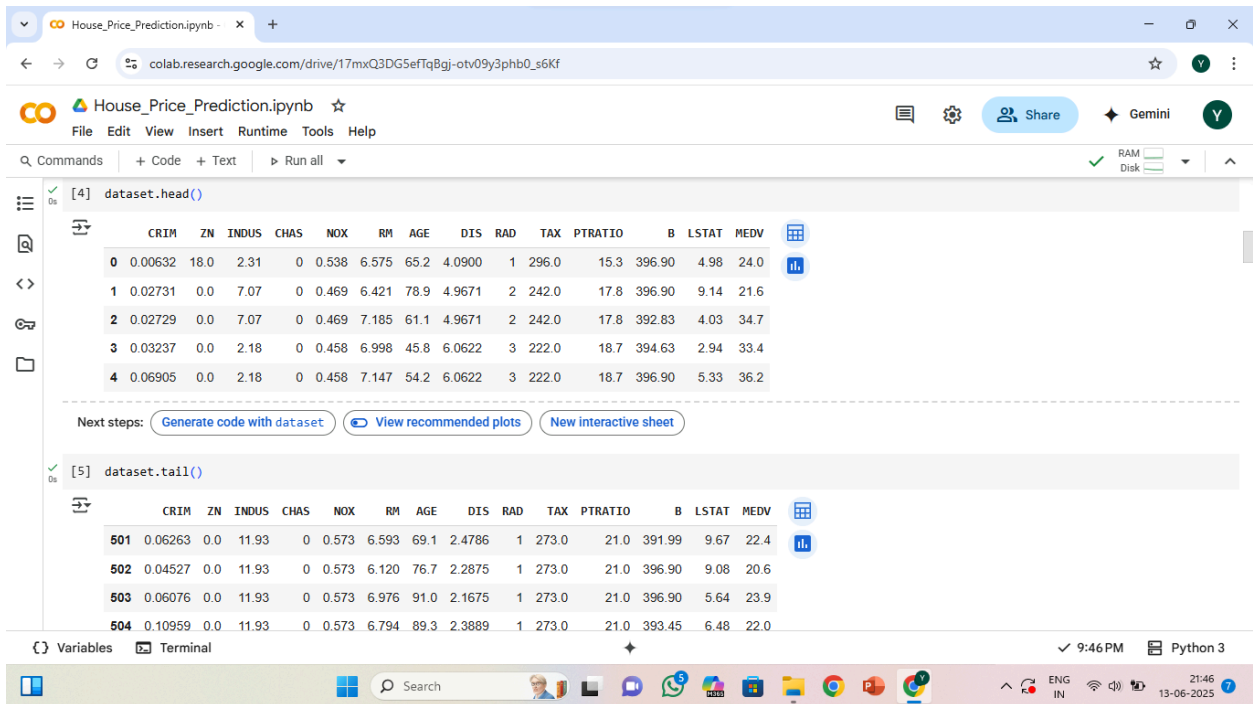
```
[2] dataset = pd.read_csv("/content/boston.csv")
```

```
[3] dataset
```

|   | CRIM    | ZN   | INDUS | CHAS | NOX   | RM    | AGE  | DIS    | RAD | TAX   | PTRATIO | B      | LSTAT | MEDV |
|---|---------|------|-------|------|-------|-------|------|--------|-----|-------|---------|--------|-------|------|
| 0 | 0.00632 | 18.0 | 2.31  | 0    | 0.538 | 6.575 | 65.2 | 4.0900 | 1   | 296.0 | 15.3    | 396.90 | 4.98  | 24.0 |
| 1 | 0.02731 | 0.0  | 7.07  | 0    | 0.469 | 6.421 | 78.9 | 4.9671 | 2   | 242.0 | 17.8    | 396.90 | 9.14  | 21.6 |
| 2 | 0.02729 | 0.0  | 7.07  | 0    | 0.469 | 7.185 | 61.1 | 4.9671 | 2   | 242.0 | 17.8    | 392.83 | 4.03  | 34.7 |

Variables Terminal

Executing (0s) Python 3



House\_Price\_Prediction.ipynb

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House\_Price\_Prediction.ipynb

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RAM Disk

[12] x

|     | CRIM    | ZN   | INDUS | CHAS | NOX   | RM    | AGE  | DIS    | RAD | TAX   | PTRATIO | B      | LSTAT |
|-----|---------|------|-------|------|-------|-------|------|--------|-----|-------|---------|--------|-------|
| 0   | 0.00632 | 18.0 | 2.31  | 0    | 0.538 | 6.575 | 65.2 | 4.0900 | 1   | 296.0 | 15.3    | 396.90 | 4.98  |
| 1   | 0.02731 | 0.0  | 7.07  | 0    | 0.469 | 6.421 | 78.9 | 4.9671 | 2   | 242.0 | 17.8    | 396.90 | 9.14  |
| 2   | 0.02729 | 0.0  | 7.07  | 0    | 0.469 | 7.185 | 61.1 | 4.9671 | 2   | 242.0 | 17.8    | 392.83 | 4.03  |
| 3   | 0.03237 | 0.0  | 2.18  | 0    | 0.458 | 6.998 | 45.8 | 6.0622 | 3   | 222.0 | 18.7    | 394.63 | 2.94  |
| 4   | 0.06905 | 0.0  | 2.18  | 0    | 0.458 | 7.147 | 54.2 | 6.0622 | 3   | 222.0 | 18.7    | 396.90 | 5.33  |
| ... | ...     | ...  | ...   | ...  | ...   | ...   | ...  | ...    | ... | ...   | ...     | ...    | ...   |
| 501 | 0.06263 | 0.0  | 11.93 | 0    | 0.573 | 6.593 | 69.1 | 2.4786 | 1   | 273.0 | 21.0    | 391.99 | 9.67  |
| 502 | 0.04527 | 0.0  | 11.93 | 0    | 0.573 | 6.120 | 76.7 | 2.2875 | 1   | 273.0 | 21.0    | 396.90 | 9.08  |
| 503 | 0.06076 | 0.0  | 11.93 | 0    | 0.573 | 6.976 | 91.0 | 2.1675 | 1   | 273.0 | 21.0    | 396.90 | 5.64  |
| 504 | 0.10959 | 0.0  | 11.93 | 0    | 0.573 | 6.794 | 89.3 | 2.3889 | 1   | 273.0 | 21.0    | 393.45 | 6.48  |
| 505 | 0.04741 | 0.0  | 11.93 | 0    | 0.573 | 6.030 | 80.8 | 2.5050 | 1   | 273.0 | 21.0    | 396.90 | 7.88  |

506 rows x 13 columns

Next steps: Generate code with Gemini, View recommended plots, View interactive chart

Variables Terminal

9:46 PM Python 3

Search

ENG IN 21:47 13-06-2025

House\_Price\_Prediction.ipynb

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House\_Price\_Prediction.ipynb

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Commands + Code + Text Run all

RAM Disk

(506, 13) (404, 13) (102, 13)

[16] model = LinearRegression()

[17] model.fit(X\_train,Y\_train)

LinearRegression

[18] model\_prediction = model.predict(X\_train)

[19] model\_prediction

|              |              |              |              |              |
|--------------|--------------|--------------|--------------|--------------|
| 6.19615015,  | 21.71589448, | 22.1865478,  | 13.75887417, | 32.74650511, |
| 21.41923987, | 36.20387531, | 20.55047817, | 26.73319062, | 12.56311885, |
| 21.56156942, | 25.07194929, | 21.05704901, | 18.99616288, | 15.60952383, |
| 21.21579876, | 34.56673537, | 16.92863012, | 17.12180752, | 17.57678502, |
| 19.77156519, | 7.38827589,  | 17.63435084, | 19.48742123, | 17.20064676, |
| 13.36430405, | 18.99529356, | 26.70458291, | 28.99452247, | 23.26277954, |
| 31.71238487, | 28.66406811, | 7.76301037,  | 21.91346737, | 16.99771571, |
| 28.8055228,  | 32.92825747, | 24.85810044, | 33.65957962, | 13.06622423, |
| 14.29976615, | 36.98598662, | 6.43185673,  | 31.28821548, | 26.01020311, |
| 17.69132533, | 15.8270425,  | 33.00062476, | 27.62470019, | 27.26053943, |

Variables Terminal

9:46 PM Python 3

Search

ENG IN 21:47 13-06-2025

House\_Price\_Prediction.ipynb

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House\_Price\_Prediction.ipynb

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Commands + Code + Text Run all

model2 = XGBRegressor(n\_estimators=1000, learning\_rate=0.05)  
model2.fit(X\_train, Y\_train)

XGBRegressor

XGBRegressor(base\_score=None, booster=None, callbacks=None, colsample\_bylevel=None, colsample\_bynode=None, colsample\_bytree=None, device=None, early\_stopping\_rounds=None, enable\_categorical=False, eval\_metric=None, feature\_types=None, gamma=None, grow\_policy=None, importance\_type=None, interaction\_constraints=None, learning\_rate=0.05, max\_bin=None, max\_cat\_threshold=None, max\_cat\_to\_onehot=None, max\_delta\_step=None, max\_depth=None, max\_leaves=None, min\_child\_weight=None, missing=-nan, monotone\_constraints=None, multi\_strategy=None, n\_estimators=1000, n\_jobs=None, num\_parallel\_tree=None, random\_state=None, ...)

[23] model\_prediction = model2.predict(X\_train)

[24] score1 = metrics.r2\_score(model\_prediction, Y\_train)  
print("R2 score =", score1)

R2 score = 0.9999999219136214

Variables Terminal

9:46 PM Python 3

House\_Price\_Prediction.ipynb

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House\_Price\_Prediction.ipynb

File Edit View Insert Runtime Tools Help

Commands + Code + Text Run all

[23] model\_prediction = model2.predict(X\_train)

[24] score1 = metrics.r2\_score(model\_prediction, Y\_train)  
print("R2 score =", score1)

R2 score = 0.9999999219136214

[25] score2 = metrics.mean\_absolute\_error(model\_prediction, Y\_train)  
print("Mean Absolute Error =", score2)

Mean Absolute Error = 0.0018612269127722776

[26] input = np.array([[0.06263, 0.0, 11.93, 0, 0.573, 6.593, 69.1, 2.4786, 1, 273.0, 21.0, 391.99, 9.67]])  
model2.predict(input)

array([22.401365], dtype=float32)

[27] import pickle  
pickle.dump(model, open("house\_price\_prediction.pkl", "wb"))

Variables Terminal

9:46 PM Python 3