Machine Learning Project on House Price Pediction

In [1]:
```
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
from sklearn.linear_model import LinearRegression
```

In [2]:
```
data = pd.read_csv('house_data.csv')
```

In [3]:
```
data
```

Out[3]:

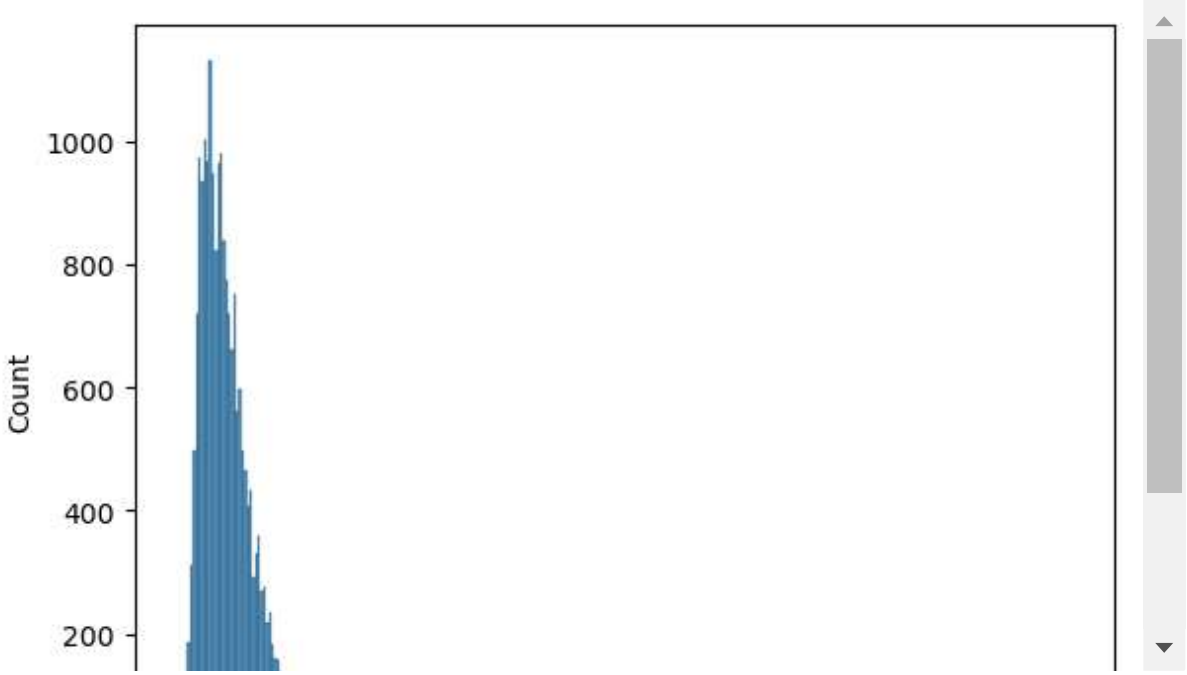
	id	date	price	bedrooms	bathrooms	sqft_living	sqft_lot	floors
0	7129300520	20141013T000000	221900	3	1.00	1180	5650	1.0
1	6414100192	20141209T000000	538000	3	2.25	2570	7242	2.0
2	5631500400	20150225T000000	180000	2	1.00	770	10000	1.0
3	2487200875	20141209T000000	604000	4	3.00	1960	5000	1.0
4	1954400510	20150218T000000	510000	3	2.00	1680	8080	1.0
...	...	...	...	...	...	...	...	...
21608	263000018	20140521T000000	360000	3	2.50	1530	1131	3.0
21609	6600060120	20150223T000000	400000	4	2.50	2310	5813	2.0
21610	1523300141	20140623T000000	402101	2	0.75	1020	1350	2.0
21611	291310100	20150116T000000	400000	3	2.50	1600	2388	2.0
21612	1523300157	20141015T000000	325000	2	0.75	1020	1076	2.0

21613 rows × 21 columns

In [4]:
```
import pandas as pd
from sklearn.model_selection import train_test_split
from sklearn.linear_model import LinearRegression

data = pd.read_csv('house_data.csv')

X = data[['bedrooms','bathrooms']]
y = data['price']

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, randc

model = LinearRegression()
model.fit(X_train, y_train)

new_data = pd.DataFrame({'bedrooms': [3], 'bathrooms': [2]})
predicted_price = model.predict(new_data)

print("Predicted price:",predicted_price)
```

```
Predicted price: [503727.91473193]
```

In [5]:
```
sns.histplot(data['price'])
plt.show()
```



In [9]:
```
import tkinter as tk
from sklearn.linear_model import LinearRegression

class HousePriceApp(tk.Tk):
    def __init__(self):
        super().__init__()
        self.title("House Price Prediction")

        self.label_bedrooms = tk.Label(self, text="Bedrooms:")
        self.label_bedrooms.pack()

        self.entry_bedrooms = tk.Entry(self)
        self.entry_bedrooms.pack()

        self.label_bathrooms = tk.Label(self, text="Bathrooms:")
        self.label_bathrooms.pack()

        self.entry_bathrooms = tk.Entry(self)
        self.entry_bathrooms.pack()

        self.button_predict = tk.Button(self, text="Predict", command=self.pre
        self.button_predict.pack()

        self.label_result = tk.Label(self, text="")
        self.label_result.pack()

        self.model = LinearRegression()
        self.model.fit(X_train, y_train)

    def predict(self):

        bedrooms = int(self.entry_bedrooms.get())
        bathrooms = int(self.entry_bathrooms.get())

        new_data = [[bedrooms, bathrooms]]
        predicted_price = self.model.predict(new_data)

        self.label_result.configure(text="Predicted price: ₹%.2f" % predicted_

if __name__ == "__main__":
    app = HousePriceApp()
    app.mainloop()
```

```
C:\Users\hp\anaconda3\lib\site-packages\sklearn\base.py:420: UserWarning: X d
oes not have valid feature names, but LinearRegression was fitted with featur
e names
  warnings.warn(
```

In [ ]:
```
```