

```
!pip install -q gradio scikit-learn pandas

import gradio as gr
import pandas as pd
from sklearn.datasets import fetch_california_housing
from sklearn.ensemble import RandomForestRegressor
from sklearn.model_selection import train_test_split

data = fetch_california_housing()
df = pd.DataFrame(data.data, columns=data.feature_names)
df['MedHouseVal'] = data.target # target is median house value in 100,000s

X = df.drop('MedHouseVal', axis=1)
y = df['MedHouseVal']

X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

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

def predict_house_price(MedInc, HouseAge, AveRooms, AveBedrms, Population, AveOccup, Latitude, Longitude):
    input_data = [[MedInc, HouseAge, AveRooms, AveBedrms, Population, AveOccup, Latitude, Longitude]]
    prediction = model.predict(input_data)[0]
    return f"Estimated House Price: ${prediction * 100000:.2f}"

inputs = [
    gr.Number(label="Median Income (10k USD)"),
    gr.Number(label="House Age"),
    gr.Number(label="Average Rooms"),
    gr.Number(label="Average Bedrooms"),
    gr.Number(label="Population"),
    gr.Number(label="Average Occupancy"),
    gr.Number(label="Latitude"),
    gr.Number(label="Longitude"),
]

iface = gr.Interface(
    fn=predict_house_price,
    inputs=inputs,
    outputs="text",
    title="California House Price Predictor",
    description="Enter house features to estimate price using Random Forest Regression."
)

iface.launch()
```



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```

It looks like you are running Gradio on a hosted a Jupyter notebook. For the Gradio app to work, sharing must be enabled. Automatica

Colab notebook detected. To show errors in colab notebook, set debug=True in launch()

* Running on public URL: <https://a4a71e0e277ade99c6.gradio.live>

This share link expires in 1 week. For free permanent hosting and GPU upgrades, run `gradio deploy` from the terminal in the working

California House Price Predictor

Enter house features to estimate price using Random Forest Regression.

Median Income (10k USD)

House Age