

```

!pip install gradio

import pandas as pd
import numpy as np
from sklearn.model_selection import train_test_split
from sklearn.ensemble import RandomForestClassifier
from sklearn.metrics import accuracy_score, classification_report
import gradio as gr

url = "https://raw.githubusercontent.com/jbrownlee/Datasets/master/pima-indians-diabetes.data.csv"
columns = ['Pregnancies', 'Glucose', 'BloodPressure', 'SkinThickness', 'Insulin', 'BMI', 'DiabetesPedigreeFunction', 'Age', 'Outcome']
df = pd.read_csv(url, names=columns)

df[['Glucose', 'BloodPressure', 'SkinThickness', 'Insulin', 'BMI']] = df[['Glucose', 'BloodPressure', 'SkinThickness', 'Insulin', 'BMI']]
df.fillna(df.mean(), inplace=True)

X = df.drop('Outcome', axis=1)
y = df['Outcome']
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2, random_state=42)

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

y_pred = model.predict(X_test)
print("Model Accuracy:", accuracy_score(y_test, y_pred))
print(classification_report(y_test, y_pred))

def predict_diabetes(input_data):
    input_df = pd.DataFrame([input_data])
    prediction = model.predict(input_df)
    return "Diabetic" if prediction[0] == 1 else "Non-Diabetic"

def gradio_predict(Pregnancies, Glucose, BloodPressure, SkinThickness, Insulin, BMI, DiabetesPedigreeFunction, Age):
    input_data = {
        'Pregnancies': Pregnancies,
        'Glucose': Glucose,
        'BloodPressure': BloodPressure,
        'SkinThickness': SkinThickness,
        'Insulin': Insulin,
        'BMI': BMI,
        'DiabetesPedigreeFunction': DiabetesPedigreeFunction,
        'Age': Age
    }
    return predict_diabetes(input_data)

interface = gr.Interface(
    fn=gradio_predict,
    inputs=[
        gr.Number(label="Pregnancies"),
        gr.Number(label="Glucose"),
        gr.Number(label="Blood Pressure"),
        gr.Number(label="Skin Thickness"),
        gr.Number(label="Insulin"),
        gr.Number(label="BMI"),
        gr.Number(label="Diabetes Pedigree Function"),
        gr.Number(label="Age"),
    ],
    outputs="text",
    title="AI-Powered Diabetes Prediction",
    description="Enter medical details to check for diabetes using a trained ML model."
)

interface.launch()

```

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Model Accuracy: 0.7402597402597403

```

	precision	recall	f1-score	support
0	0.80	0.80	0.80	99
1	0.64	0.64	0.64	55
accuracy			0.74	154
macro avg	0.72	0.72	0.72	154
weighted avg	0.74	0.74	0.74	154

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

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

* Running on public URL: <https://0e286a789d8f1196cc.gradio.live>

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

AI-Powered Diabetes Prediction

Enter medical details to check for diabetes using a trained ML model.

Pregnancies <input type="text" value="0"/>	output <input type="text"/>
Glucose <input type="text" value="0"/>	
Blood Pressure <input type="text" value="0"/>	

Flag