

```
!pip install streamlit
```

```
Collecting streamlit
```

```
  Downloading streamlit-1.34.0-py2.py3-none-any.whl (8.5 MB)
```

```
8.5/8.5 MB 22.9 MB/s eta 0:00:00
```

```
Requirement already satisfied: altair<6,>=4.0 in /usr/local/lib/python3.10/dist-packages (8.5.0)
Requirement already satisfied: blinker<2,>=1.0.0 in /usr/lib/python3/dist-packages (1.0.0)
Requirement already satisfied: cachetools<6,>=4.0 in /usr/local/lib/python3.10/dist-packages (5.3.0)
Requirement already satisfied: click<9,>=7.0 in /usr/local/lib/python3.10/dist-packages (8.1.7)
Requirement already satisfied: numpy<2,>=1.19.3 in /usr/local/lib/python3.10/dist-packages (1.26.4)
Requirement already satisfied: packaging<25,>=16.8 in /usr/local/lib/python3.10/dist-packages (24.0)
Requirement already satisfied: pandas<3,>=1.3.0 in /usr/local/lib/python3.10/dist-packages (2.1.4)
Requirement already satisfied: pillow<11,>=7.1.0 in /usr/local/lib/python3.10/dist-packages (10.4.0)
Requirement already satisfied: protobuf<5,>=3.20 in /usr/local/lib/python3.10/dist-packages (4.25.3)
Requirement already satisfied: pyarrow>=7.0 in /usr/local/lib/python3.10/dist-packages (15.0.2)
Requirement already satisfied: requests<3,>=2.27 in /usr/local/lib/python3.10/dist-packages (2.32.0)
Requirement already satisfied: rich<14,>=10.14.0 in /usr/local/lib/python3.10/dist-packages (13.7.1)
Requirement already satisfied: tenacity<9,>=8.1.0 in /usr/local/lib/python3.10/dist-packages (8.5.0)
Requirement already satisfied: toml<2,>=0.10.1 in /usr/local/lib/python3.10/dist-packages (0.10.2)
Requirement already satisfied: typing-extensions<5,>=4.3.0 in /usr/local/lib/python3.10/dist-packages (4.9.0)
Collecting gitpython!=3.1.19,<4,>=3.0.7 (from streamlit)
  Downloading GitPython-3.1.43-py3-none-any.whl (207 kB)
```

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207.3/207.3 kB 18.9 MB/s eta 0:00:00
```

```
Collecting pydeck<1,>=0.8.0b4 (from streamlit)
```

```
  Downloading pydeck-0.9.0-py2.py3-none-any.whl (6.9 MB)
```

```
6.9/6.9 MB 44.7 MB/s eta 0:00:00
```

```
Requirement already satisfied: tornado<7,>=6.0.3 in /usr/local/lib/python3.10/dist-packages (6.4.0)
Collecting watchdog>=2.1.5 (from streamlit)
```

```
  Downloading watchdog-4.0.0-py3-none-manylinux2014_x86_64.whl (82 kB)
```

```
83.0/83.0 kB 9.8 MB/s eta 0:00:00
```

```
Requirement already satisfied: entrypoints in /usr/local/lib/python3.10/dist-packages (0.4)
Requirement already satisfied: Jinja2 in /usr/local/lib/python3.10/dist-packages (3.1.3)
Requirement already satisfied: jsonschema>=3.0 in /usr/local/lib/python3.10/dist-packages (4.21.2)
Requirement already satisfied: toolz in /usr/local/lib/python3.10/dist-packages (0.12.1)
Collecting gitdb<5,>=4.0.1 (from gitpython!=3.1.19,<4,>=3.0.7->streamlit)
  Downloading gitdb-4.0.11-py3-none-any.whl (62 kB)
```

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62.7/62.7 kB 8.0 MB/s eta 0:00:00
```

```
Requirement already satisfied: python-dateutil>=2.8.2 in /usr/local/lib/python3.10/dist-packages (2.9.0)
Requirement already satisfied: pytz>=2020.1 in /usr/local/lib/python3.10/dist-packages (2024.1)
Requirement already satisfied: tzdata>=2022.1 in /usr/local/lib/python3.10/dist-packages (2024.1)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.10/dist-packages (3.3.2)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.10/dist-packages (3.6)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.10/dist-packages (2.2.3)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.10/dist-packages (2024.7.4)
Requirement already satisfied: markdown-it-py>=2.2.0 in /usr/local/lib/python3.10/dist-packages (3.0.0)
Requirement already satisfied: pygments<3.0.0,>=2.13.0 in /usr/local/lib/python3.10/dist-packages (2.18.1)
Collecting smmap<6,>=3.0.1 (from gitdb<5,>=4.0.1->gitpython!=3.1.19,<4,>=3.0.7->streamlit)
  Downloading smmap-5.0.1-py3-none-any.whl (24 kB)
```

```
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.10/dist-packages (2.1.5)
Requirement already satisfied: attrs>=22.2.0 in /usr/local/lib/python3.10/dist-packages (24.2.0)
Requirement already satisfied: jsonschema-specifications>=2023.03.6 in /usr/local/lib/python3.10/dist-packages (2024.10.1)
Requirement already satisfied: referencing>=0.28.4 in /usr/local/lib/python3.10/dist-packages (0.35.1)
Requirement already satisfied: rpds-py>=0.7.1 in /usr/local/lib/python3.10/dist-packages (0.18.0)
Requirement already satisfied: mdurl<0.1 in /usr/local/lib/python3.10/dist-packages (0.1.2)
Requirement already satisfied: six>=1.5 in /usr/local/lib/python3.10/dist-packages (1.16.0)
Installing collected packages: watchdog, smmap, pydeck, gitdb, gitpython, streamlit
Successfully installed gitdb-4.0.11 gitpython-3.1.43 pydeck-0.9.0 smmap-5.0.1 streamlit-1.34.0
```

```
!wget -q -O - ipv4.icanhazip.com
```

```
34.16.167.231
```

```
! streamlit run main.py & npx localtunnel --port 8501
```

```
Collecting usage statistics. To deactivate, set browser.gatherUsageStats to false.
```

```
You can now view your Streamlit app in your browser.
```

```
Network URL: http://172.28.0.12:8501
```

```
External URL: http://34.16.167.231:8501
```

```
npx: installed 22 in 5.024s
```

```
your url is: https://cute-ants-add.local.lt
```

```
2024-05-10 07:47:38.288606: E external/local_xla/xla/stream_executor/cuda/cuda_cuda_runtime.cc:397] cudaRuntimeOpenExe: cudaErrorInvalidDeviceFunction: an illegal instruction was executed
2024-05-10 07:47:38.288695: E external/local_xla/xla/stream_executor/cuda/cuda_cuda_runtime.cc:397] cudaRuntimeOpenExe: cudaErrorInvalidDeviceFunction: an illegal instruction was executed
```

```
main.py X
```

```
1 import streamlit as st
2 import tensorflow as tf
3 import numpy as np
4
5 # Tensorflow Model Prediction
6 def model_prediction(test_image):
7     model = tf.keras.models.load_model("/content/food_classification_model.h5")
8     image = tf.keras.preprocessing.image.load_img(test_image, target_size=(224, 224))
9     input_arr = tf.keras.preprocessing.image.img_to_array(image)
10    input_arr = np.array([input_arr]) # Convert single image to a batch
11    predictions = model.predict(input_arr)
12    return np.argmax(predictions) # Return index with highest probability
13
14 # Sidebar
15 st.sidebar.title("Dashboard")
16 app_mode = "Prediction" # Setting default page
17
18 # Main Page
19 if app_mode == "Prediction":
20     st.header("Model Prediction")
21     test_image = st.file_uploader("Choose an Image")
22     if st.button("Show Image") and test_image is not None:
23         st.image(test_image, width=200, use_column_width=True)
24     # Predict button
25     if st.button("Predict") and test_image is not None:
26         st.write("Our Prediction")
27         result_index = model_prediction(test_image)
28         # Reading Labels
29         with open("/content/labels.txt") as f:
30             content = f.readlines()
31             label = [i.strip() for i in content]
32             st.success("Model predicts it's a {}".format(label[result_index]))
33
```

```
2024-05-10 07:47:38.294530: E external/local_xla/xla/stream_executor/cuda/cuda_t
2024-05-10 07:47:38.321986: I tensorflow/core/platform/cpu_feature_guard.cc:182
To enable the following instructions: AVX2 FMA, in other operations, rebuild Ter
2024-05-10 07:47:40.325981: W tensorflow/compiler/tf2tensorrt/utils/py_utils.cc:
```

