In [2]:
```
pip install --upgrade Tensorflow
```

Requirement already satisfied: Tensorflow in c:\users\vikas pawar\anaconda
3\lib\site-packages (2.14.0)
Requirement already satisfied: tensorflow-intel==2.14.0 in c:\users\vikas
pawar\anaconda3\lib\site-packages (from Tensorflow) (2.14.0)
Requirement already satisfied: absl-py>=1.0.0 in c:\users\vikas pawar\anac
onda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (2.0.
0)
Requirement already satisfied: astunparse>=1.6.0 in c:\users\vikas pawar\a
naconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (1.
6.3)Note: you may need to restart the kernel to use updated packages.
Requirement already satisfied: flatbuffers>=23.5.26 in c:\users\vikas pawa
r\anaconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow)
(23.5.26)
Requirement already satisfied: gast!=0.5.0,!=0.5.1,!=0.5.2,>=0.2.1 in c:\u
sers\vikas pawar\anaconda3\lib\site-packages (from tensorflow-intel==2.14.
0->Tensorflow) (0.5.4)

Requirement already satisfied: google-pasta>=0.1.1 in c:\users\vikas pawar
\anaconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow)
(0.2.0)

[notice] A new release of pip is available: 23.1.2 -> 23.3.1
[notice] To update, run: python.exe -m pip install --upgrade pip

Requirement already satisfied: h5py>=2.9.0 in c:\users\vikas pawar\anacond
a3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (3.6.0)
Requirement already satisfied: libclang>=13.0.0 in c:\users\vikas pawar\an
aconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (16.
0.6)
Requirement already satisfied: ml-dtypes==0.2.0 in c:\users\vikas pawar\an
aconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (0.
2.0)
Requirement already satisfied: numpy>=1.23.5 in c:\users\vikas pawar\anaco
nda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (1.26.
1)
Requirement already satisfied: opt-einsum>=2.3.2 in c:\users\vikas pawar\a
naconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (3.
3.0)
Requirement already satisfied: packaging in c:\users\vikas pawar\anaconda3
\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (21.3)
Requirement already satisfied: protobuf!=4.21.0,!=4.21.1,!=4.21.2,!=4.21.
3,!=4.21.4,!=4.21.5,<5.0.0dev,>=3.20.3 in c:\users\vikas pawar\anaconda3\l
ib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (4.24.4)
Requirement already satisfied: setuptools in c:\users\vikas pawar\anaconda
3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (61.2.0)
Requirement already satisfied: six>=1.12.0 in c:\users\vikas pawar\anacond
a3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (1.16.0)
Requirement already satisfied: termcolor>=1.1.0 in c:\users\vikas pawar\an
aconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow) (2.
3.0)
Requirement already satisfied: typing-extensions>=3.6.6 in c:\users\vikas
pawar\anaconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorfl
ow) (4.1.1)
Requirement already satisfied: wrapt<1.15,>=1.11.0 in c:\users\vikas pawar
\anaconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow)
(1.12.1)
Requirement already satisfied: tensorflow-io-gcs-filesystem>=0.23.1 in
c:\users\vikas pawar\anaconda3\lib\site-packages (from tensorflow-intel==
2.14.0->Tensorflow) (0.31.0)
Requirement already satisfied: grpcio<2.0,>=1.24.3 in c:\users\vikas pawar
\anaconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow)
(1.59.0)
Requirement already satisfied: tensorboard<2.15,>=2.14 in c:\users\vikas p
awar\anaconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflo
w) (2.14.1)
Requirement already satisfied: tensorflow-estimator<2.15,>=2.14.0 in c:\us
ers\vikas pawar\anaconda3\lib\site-packages (from tensorflow-intel==2.14.0
->Tensorflow) (2.14.0)
Requirement already satisfied: keras<2.15,>=2.14.0 in c:\users\vikas pawar
\anaconda3\lib\site-packages (from tensorflow-intel==2.14.0->Tensorflow)
(2.14.0)
Requirement already satisfied: wheel<1.0,>=0.23.0 in c:\users\vikas pawar
\anaconda3\lib\site-packages (from astunparse>=1.6.0->tensorflow-intel==2.
14.0->Tensorflow) (0.37.1)
Requirement already satisfied: google-auth<3,>=1.6.3 in c:\users\vikas paw
ar\anaconda3\lib\site-packages (from tensorboard<2.15,>=2.14->tensorflow-i
ntel==2.14.0->Tensorflow) (2.23.3)
Requirement already satisfied: google-auth-oauthlib<1.1,>=0.5 in c:\users
\vikas pawar\anaconda3\lib\site-packages (from tensorboard<2.15,>=2.14->te
nsorflow-intel==2.14.0->Tensorflow) (1.0.0)
Requirement already satisfied: markdown>=2.6.8 in c:\users\vikas pawar\ana
conda3\lib\site-packages (from tensorboard<2.15,>=2.14->tensorflow-intel==
2.14.0->Tensorflow) (3.3.4)
Requirement already satisfied: requests<3,>=2.21.0 in c:\users\vikas pawar

```
\anaconda3\lib\site-packages (from tensorboard<2.15,>=2.14->tensorflow-int
el==2.14.0->Tensorflow) (2.27.1)
Requirement already satisfied: tensorboard-data-server<0.8.0,>=0.7.0 in
c:\users\vikas pawar\anaconda3\lib\site-packages (from tensorboard<2.15,>=
2.14->tensorflow-intel==2.14.0->Tensorflow) (0.7.1)
Requirement already satisfied: werkzeug>=1.0.1 in c:\users\vikas pawar\ana
conda3\lib\site-packages (from tensorboard<2.15,>=2.14->tensorflow-intel==
2.14.0->Tensorflow) (2.0.3)
Requirement already satisfied: pyparsing!=3.0.5,>=2.0.2 in c:\users\vikas
pawar\anaconda3\lib\site-packages (from packaging->tensorflow-intel==2.14.
0->Tensorflow) (3.0.4)
Requirement already satisfied: cachetools<6.0,>=2.0.0 in c:\users\vikas pa
war\anaconda3\lib\site-packages (from google-auth<3,>=1.6.3->tensorboard<
2.15,>=2.14->tensorflow-intel==2.14.0->Tensorflow) (4.2.2)
Requirement already satisfied: pyasn1-modules>=0.2.1 in c:\users\vikas paw
ar\anaconda3\lib\site-packages (from google-auth<3,>=1.6.3->tensorboard<2.
15,>=2.14->tensorflow-intel==2.14.0->Tensorflow) (0.2.8)
Requirement already satisfied: rsa<5,>=3.1.4 in c:\users\vikas pawar\anaco
nda3\lib\site-packages (from google-auth<3,>=1.6.3->tensorboard<2.15,>=2.1
4->tensorflow-intel==2.14.0->Tensorflow) (4.7.2)
Requirement already satisfied: requests-oauthlib>=0.7.0 in c:\users\vikas
pawar\anaconda3\lib\site-packages (from google-auth-oauthlib<1.1,>=0.5->te
nsorboard<2.15,>=2.14->tensorflow-intel==2.14.0->Tensorflow) (1.3.1)
Requirement already satisfied: urllib3<1.27,>=1.21.1 in c:\users\vikas paw
ar\anaconda3\lib\site-packages (from requests<3,>=2.21.0->tensorboard<2.1
5,>=2.14->tensorflow-intel==2.14.0->Tensorflow) (1.26.9)
Requirement already satisfied: certifi>=2017.4.17 in c:\users\vikas pawar
\anaconda3\lib\site-packages (from requests<3,>=2.21.0->tensorboard<2.15,>
=2.14->tensorflow-intel==2.14.0->Tensorflow) (2021.10.8)
Requirement already satisfied: charset-normalizer~=2.0.0 in c:\users\vikas
pawar\anaconda3\lib\site-packages (from requests<3,>=2.21.0->tensorboard<
2.15,>=2.14->tensorflow-intel==2.14.0->Tensorflow) (2.0.4)
Requirement already satisfied: idna<4,>=2.5 in c:\users\vikas pawar\anacon
da3\lib\site-packages (from requests<3,>=2.21.0->tensorboard<2.15,>=2.14->
tensorflow-intel==2.14.0->Tensorflow) (3.3)
Requirement already satisfied: pyasn1<0.5.0,>=0.4.6 in c:\users\vikas pawa
r\anaconda3\lib\site-packages (from pyasn1-modules>=0.2.1->google-auth<3,>
=1.6.3->tensorboard<2.15,>=2.14->tensorflow-intel==2.14.0->Tensorflow) (0.
4.8)
Requirement already satisfied: oauthlib>=3.0.0 in c:\users\vikas pawar\ana
conda3\lib\site-packages (from requests-oauthlib>=0.7.0->google-auth-oauth
lib<1.1,>=0.5->tensorboard<2.15,>=2.14->tensorflow-intel==2.14.0->Tensorfl
ow) (3.2.2)
```

In [*]:

```python
from tensorflow.keras.preprocessing.image import load_img
from tensorflow.keras.preprocessing.image import img_to_array
from keras.applications.vgg16 import preprocess_input
from keras.applications.vgg16 import decode_predictions
from keras.applications.vgg16 import VGG16

# load an image from file
image = load_img('C:/Users/vikas pawar/Desktop/download.jpg', target_size=(

# convert the image pixels to a numpy array
image = img_to_array(image)

# reshape data for the model
image = image.reshape((1, image.shape[0], image.shape[1], image.shape[2]))


# prepare the image for the VGG model
image = preprocess_input(image)

# load the VGG16 model
model = VGG16()

# predict the probability across all output classes
yhat = model.predict(image)

# convert the probabilities to class labels
label = decode_predictions(yhat)

# retrieve the most likely result, e.g. highest probability
label = label[0][0]

# print the classification
print('%s (%.2f%%)' % (label[1], label[2]*100))
```

```
C:\Users\vikas pawar\anaconda3\lib\site-packages\scipy\__init__.py:146: Us
erWarning: A NumPy version >=1.16.5 and <1.23.0 is required for this versi
on of SciPy (detected version 1.26.1
  warnings.warn(f"A NumPy version >={np_minversion} and <{np_maxversion}"

Downloading data from https://storage.googleapis.com/tensorflow/keras-appl
ications/vgg16/vgg16_weights_tf_dim_ordering_tf_kernels.h5 (https://storag
e.googleapis.com/tensorflow/keras-applications/vgg16/vgg16_weights_tf_dim_
ordering_tf_kernels.h5)
346742784/553467096 [=================>............] - ETA: 15:34
```

In [*]:
```python
# load an image from file
image = load_img('C:/Users/vikas pawar/Downloads/download2.png', target_size
# convert the image pixels to a numpy array
image = img_to_array(image)
# reshape data for the model
image = image.reshape((1, image.shape[0], image.shape[1], image.shape[2]))
# prepare the image for the VGG model
image = preprocess_input(image)
# load the model
model = VGG16()
# predict the probability across all output classes
yhat = model.predict(image)
# convert the probabilities to class labels
label = decode_predictions(yhat)
# retrieve the most likely result, e.g. highest probability
label = label[0][0]
# print the classification
print('%s (%.2f%%)' % (label[1], label[2]*100))
```

In [*]:
```python
# load an image from file
image = load_img('C:/Users/vikas pawar/Downloads/download3.jpg', target_size
# convert the image pixels to a numpy array
image = img_to_array(image)
# reshape data for the model
image = image.reshape((1, image.shape[0], image.shape[1], image.shape[2]))
# prepare the image for the VGG model
image = preprocess_input(image)
# load the model
model = VGG16()
# predict the probability across all output classes
yhat = model.predict(image)
# convert the probabilities to class labels
label = decode_predictions(yhat)
# retrieve the most likely result, e.g. highest probability
label = label[0][0]
# print the classification
print('%s (%.2f%%)' % (label[1], label[2]*100))
```

In [ ]: