```
"cells": [
 "cell_type": "code",
 "execution count": 22,
 "id": "f86316b7",
 "metadata": {},
  "outputs": [],
  "source": [
  "from keras.preprocessing.image import ImageDataGenerator"
 ]
 },
 "cell type": "code",
 "execution count": 23,
  "id": "fe4bb9e0",
  "metadata": {},
  "outputs": [],
  "source": [
  "from keras.preprocessing import image"
 ]
} ,
 "cell_type": "code",
 "execution count": 24,
  "id": "160\overline{9}34a5",
  "metadata": {},
  "outputs": [],
  "source": [
  "from flask import Flask, render template, request"
},
  "cell type": "code",
  "execution count": 25,
  "id": "eab6055e",
  "metadata": {},
  "outputs": [],
  "source": [
  "import os"
 ]
 },
 "cell type": "code",
  "execution count": 26,
  "id": "3624454f",
 "metadata": {},
  "outputs": [],
  "source": [
  "import numpy as np"
 ]
 },
 "cell_type": "code",
 "execution_count": 27,
  "id": "544\overline{8}29f4",
  "metadata": {},
  "outputs": [],
```

```
"source": [
   "from tensorflow.keras.models import load model"
  },
  "cell type": "code",
  "execution count": 28,
   "id": "df07eee4",
   "metadata": {},
   "outputs": [],
   "source": [
    "from tensorflow.keras.preprocessing import image"
   ]
  },
   "cell type": "code",
   "execution count": 29,
   "id": "fdf\overline{179}ff",
   "metadata": {},
   "outputs": [],
   "source": [
   "import requests"
   1
  },
   "cell type": "code",
   "execution count": 30,
   "id": "cde4b0cc",
   "metadata": {},
   "outputs": [],
   "source": [
   "app = Flask(__name__,template_folder=\"templates\")"
  },
   "cell_type": "code",
   "execution count": 31,
   "id": "585313c6",
   "metadata": {},
   "outputs": [
     "name": "stdout",
     "output type": "stream",
     "text": [
     "WARNING: tensorflow: No training configuration found in the save
file, so the model was *not* compiled. Compile it manually.\n"
     ]
   }
   ],
   "source": [
   "model=load model('nutrition.h5')"
  },
  "cell_type": "code",
   "execution count": 32,
   "id": "e3888077",
   "metadata": {},
```

```
"outputs": [
     "name": "stdout",
     "output_type": "stream",
     "text": [
      "loaded model from disk\n"
    }
   ],
   "source": [
    "print(\"loaded model from disk\")"
  },
   "cell type": "code",
   "execution count": 33,
   "id": "b1da8083",
   "metadata": {},
   "outputs": [],
   "source": [
    "def home():\n",
        return render template ('home.html') #rendering the home page\n",
    "\n",
    "\n"
   ]
  },
   "cell type": "code",
   "execution count": 34,
   "id": "68d7dd55",
   "metadata": {},
   "outputs": [],
   "source": [
    "@app.route('/image', methods=['GET', 'POST']) # routes to the index
html\n",
    "def image():\n",
         return render template(\"image.html\")"
   ]
  },
   "cell_type": "code",
   "execution count": 35,
   "id": "847\overline{3}5861",
   "metadata": {},
   "outputs": [],
   "source": [
    "@app.route('/predict', methods=['GET', 'POST']) # route to show the
predictions in a web UI\n",
    "def launch():\n",
         if request.method=='POST':\n",
             f=request.files[''] #requesting the file\n",
             basepath=os.path.dirname(' file ')#storing the file
directory\n",
filepath=os.path.join(basepath,\"uploads\",f.filename) #storing the file
in uploads folder\n",
             f.save('') #saving the file\n",
```

```
]
  },
  "cell type": "code",
  "execution count": 36,
   "id": "5edd7210",
   "metadata": {},
   "outputs": [],
   "source": [
   "from tensorflow.keras.models import load model"
 },
   "cell type": "code",
   "execution count": 37,
   "id": "a19\overline{8}923d",
   "metadata": {},
   "outputs": [],
   "source": [
   "from keras.preprocessing import image"
 },
  "cell type": "code",
   "execution count": 38,
   "id": "1486f60d",
   "metadata": {},
   "outputs": [],
   "source": [
    "from tensorflow.keras.models import load model"
  ]
  },
   "cell type": "code",
   "execution count": 40,
   "id": "f7ef03af",
   "metadata": {},
   "outputs": [
     "ename": "AttributeError",
     "evalue": "module 'keras.preprocessing.image' has no attribute
'load img'",
     "output_type": "error",
     "traceback": [
     "\u001b[1;31m----
     ----\u001b[0m",
     "\u001b[1;31mAttributeError\u001b[0m
Traceback (most recent call last)",
      "Input \u001b[1;32mIn [40]\u001b[0m, in \u001b[0;36m<cell line:
1>\u001b[1;34m()\u001b[0m\n\u001b[1;32m----> 1\u001b[0m img]]
\u001b[38;5;241m=\u001b[39m
\u001b[43mimage\u001b[49m\u001b[38;5;241;43m.\u001b[39;49m\u001b[43mload
img\u001b[49m(\u001b[38;5;124mr\u001b[39m\u001b[38;5;124m\"\u001b[39m\u00
1b [38;5;124mE: \u001b [39m\u001b [38;5;124m\\\\\\\\\\\\\\\)
\u001b[39m\u001b[38;5;124m\u001b[39m\u001b[38;5;124mSample Images-
20221104T061454Z-
001\u001b[39m\u001b[38;5;124m\\\u001b[39m\u001b[38;5;124mSample Images\u0
```

```
01b[39m\u001b[38;5;124m\u001b[39m\u001b[38;5;124mTest Image1.jpg\u001b[
39m\u001b[38;5;124m\"\u001b[39m,target size\u001b[38;5;241m=\u001b[39m(\u
001b[38;5;241m64\u001b[39m,\u001b[38;5;241m64\u001b[39m))
\u001b[38;5;66;03m#load and reshaping the
                                     2\u001b[0m x
image\u001b[39;00m\n\u001b[0;32m
\u001b[38;5;241m=\u001b[39m
image\u001b[38;5;241m.\u001b[39mimg to array(img)\u001b[38;5;66;03m#conve
rting image to an array\u001b[39;00m\n\u001b[0;32m]
                                                      3\u001b[0m x
\u001b[38;5;241m=\u001b[39m
np\u001b[38;5;241m.\u001b[39mexpand dims(x,axis]]
\u001b[38;5;241m=\u001b[39m]\u001b[38;5;241m0\u001b[39m]\n",
      "\u001b[1;31mAttributeError\u001b[0m: module
'keras.preprocessing.image' has no attribute 'load img'"
    }
   ],
   "source": [
    "img = image.load img(r\"E:\\Flask\\Sample Images-20221104T061454Z-
001\\Sample Images\\Test Image1.jpg\",target size=(64,64)) #load and
reshaping the image\n",
    "x = image.img_to_array(img)#converting image to an arrayn",
    "x = np.expand dims(x,axis = 0) n",
    "pred = np.argmax(model.predict(x)) \n",
    "pred"
   ]
  },
  {
   "cell type": "code",
   "execution count": 43,
   "id": "15fc85c1",
   "metadata": {},
   "outputs": [
     "ename": "NameError",
     "evalue": "name 'x' is not defined",
     "output type": "error",
     "traceback": [
     "\u001b[1;31m------
----\u001b[0m",
     "\u001b[1;31mNameError\u001b[0m
Traceback (most recent call last)",
      "Input \u001b[1;32mIn [43]\u001b[0m, in \u001b[0;36m<cell line:
1>\u001b[1;34m()\u001b[0m\n\u001b[1;32m----> 1\u001b[0m
pred\u001b[38;5;241m=\u001b[39mnp\u001b[38;5;241m.\u001b[39margmax(model\
u001b[38;5;241m.\u001b[39mpredict(\u001b[43mx\u001b[49m),
axis\u001b[38;5;241m=\u001b[39m\u001b[38;5;241m1\u001b[39m)\n\u001b[0;32m]
2\u001b[0m
\u001b[38;5;28mprint\u001b[39m(\u001b[38;5;124m\"\u001b[39m\u001b[38;5;12
4mprediction\u001b[39m\u001b[38;5;124m\"\u001b[39m,pred)\u001b[38;5;66;03
m#printing the prediction\u001b[39;00m\n\u001b[0;32m
                                                        3\u001b[0m
index\u001b[38;5;241m=\u001b[39m[\u001b[38;5;124m'\u001b[39m\u001b[38;5;1
24mAPPLES\u001b[39m\u001b[38;5;124m'\u001b[39m,\u001b[38;5;124m'\u001b[39
m\u001b[38;5;124mBANANA\u001b[39m\u001b[38;5;124m'\u001b[39m,\u001b[38;5;
124m'\u001b[39m\u001b[38;5;124mORANGE\u001b[39m\u001b[38;5;124m'\u001b[39
m,\u001b[38;5;124m'\u001b[39m\u001b[38;5;124mPINEAPPLE\u001b[39m\u001b[38
;5;124m'\u001b[39m,\u001b[38;5;124m'\u001b[39m\u001b[38;5;124mWATERMELON\
u001b[39m\u001b[38;5;124m'\u001b[39m]\n",
      "\u001b[1;31mNameError\u001b[0m: name 'x' is not defined"
```

```
]
    }
  ],
   "source": [
    " pred=np.argmax(model.predict(x), axis=1)\n",
    " print(\"prediction\",pred) #printing the prediction\n",
    " index=['APPLES','BANANA','ORANGE','PINEAPPLE','WATERMELON']\n",
    **
      \n",
    11
         \n",
    " result=str(index[pred[0]])\n",
                \n",
    " x=result\n",
   " print(x)\n",
    " result=nutrition(result)\n",
    " print(result)\n",
   " return
render template(\"0.html\", showcase=(result), showcase1=(x))\n"
  },
  "cell type": "code",
  "execution count": null,
   "id": "02980762",
   "metadata": {},
   "outputs": [
     "name": "stdout",
     "output type": "stream",
     "text": [
      " * Serving Flask app \" main \" (lazy loading)\n",
      " * Environment: production\n",
      "\u001b[31m
                   WARNING: This is a development server. Do not use it
in a production deployment.\u001b[0m\n",
      "\u001b[2m Use a production WSGI server instead.\u001b[0m\n",
      " * Debug mode: off\n"
     ]
    },
    "name": "stderr",
     "output type": "stream",
     "text": [
     " * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)\n"
     1
    }
   ],
   "source": [
    "def nutrition(index):\n",
    "\n",
    "\n",
         url = \"https://calorieninjas.p.rapidapi.com/v1/nutrition\"\n",
    "
         querystring = {\"query\":tomato}\n",
    **
         \n",
    "
         headers = \{ n'',
             'x-rapidapi-key':
\"5d797ab107mshe668f26bd044e64p1ffd34jsnf47bfa9a8ee4\",\n",
             'x-rapidapi-host': \"calorieninjas.p.rapidapi.com\"\n",
    "
             }\n",
```

```
\n",
         response = requests.request(\"GET\", url, headers=headers,
params=querystring) \n",
         \n",
    **
        print(response.text)
                                 \n",
        return response.json()['items']\n",
    "if __name__ == \"__main__\":\n",
        # running the app\n",
        app.run(debug=False)\n"
   ]
  },
   "cell_type": "code",
   "execution count": null,
   "id": "fe5d99b3",
   "metadata": {},
   "outputs": [],
   "source": [
    " \n",
    "\n"
   ]
  },
   "cell type": "code",
   "execution count": null,
   "id": "a06\overline{3}5d29",
   "metadata": {},
   "outputs": [],
   "source": []
   "cell type": "code",
   "execution_count": null,
   "id": "b64\overline{9}242c",
   "metadata": {},
   "outputs": [],
   "source": []
  },
   "cell type": "code",
   "execution count": null,
   "id": "b881fa11",
   "metadata": {},
   "outputs": [],
   "source": []
  }
 ],
 "metadata": {
  "kernelspec": {
   "display name": "Python 3 (ipykernel)",
   "language": "python",
   "name": "python3"
  },
  "language info": {
   "codemirror mode": {
    "name": "ipython",
    "version": 3
   },
```

```
"file_extension": ".py",
   "mimetype": "text/x-python",
   "name": "python",
   "nbconvert_exporter": "python",
   "pygments_lexer": "ipython3",
   "version": "3.9.12"
   }
},
   "nbformat": 4,
   "nbformat_minor": 5
```