```html
<body>
<h1 class="main" style="color: ■rgb(193, 207, 207);">
  <br>
    <span>HAND    GESTURE    RECOGNITION OF RADIOLOGY    IMAGES THROUGH </span>
  </br>
    <span>STERILE    BROWSING</span>

</h1>
<div class="header">
<div style="width:50%;float:left;font-size:2vw;text-align:left;color:■#f4f5f4; padding-top:1%;padding-left:5%;"><b>HAND GESTURE RECOGNITION</b><
  <div class="topnav-right"style="padding-top:0.5%;color:white">
    <a  class="active" href="{{ url_for('home')}}"><u>Home</u></a>
    <a  class="active" href="{{ url_for('intro')}}">Introduction</a>
    <a  class="active" href="{{ url_for('image1')}}">Launch</a>
  </div>
</div>

</body>

</html>
```
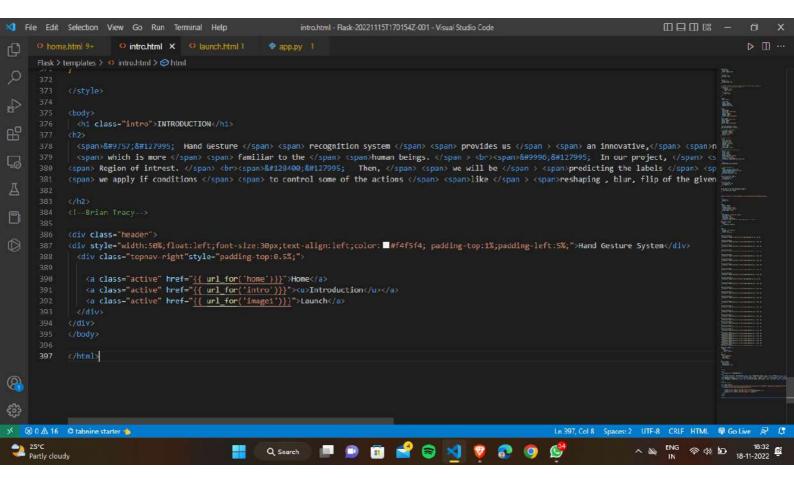
```html
372      }
373    </style>
374
375    <body>
376      <h1 class="intro">INTRODUCTION</h1>
377    <h2>
378      <span>&#9757;&#127995;  Hand Gesture </span> <span> recognition system </span> <span> provides us </span > <span> an innovative,</span> <span>n
379      <span> which is more </span> <span> familiar to the </span> <span>human beings. </span > <br><span>&#9996;&#127995;  In our project, </span> <s
380    <span> Region of intrest. </span> <br><span>&#128400;&#127995;   Then, </span> <span> we will be </span > <span>predicting the labels </span> <sp
381    <span> we apply if conditions </span> <span> to control some of the actions </span> <span>like </span > <span>reshaping , blur, flip of the given
382
383    </h2>
384    <!--Brian Tracy-->
385
386    <div class="header">
387    <div style="width:50%;float:left;font-size:30px;text-align:left;color: #f4f5f4; padding-top:1%;padding-left:5%;">Hand Gesture System</div>
388      <div class="topnav-right"style="padding-top:0.5%;">
389
390      <a class="active" href="{{ url_for('home')}}">Home</a>
391      <a class="active" href="{{ url_for('intro')}}"><u>Introduction</u></a>
392      <a class="active" href="{{ url_for('image1')}}">Launch</a>
393    </div>
394    </div>
395    </body>
396
397    </html>
```
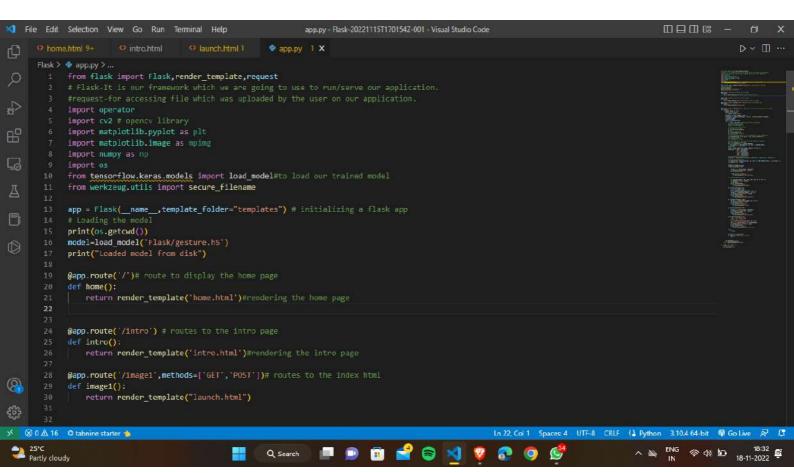
```
263     </head>
264
265     <body>
266     <div class="header">
267     <div style="width:50%;float:left;font-size:2vw;text-align:left;color:#c1e2d9; padding-top:1%;padding-left:5%;">Hand Gesture System</div>
268       <div class="topnav-right"style="padding-top:0.5%;">
269
270         <a class="active" href="{{ url_for('home')}}">Home</a>
271         <a class="active" href="{{ url_for('intro')}}">Introduction</a>
272         <a class="active" href="{{ url_for('image1')}}"><u>Launch</u></a>
273       </div>
274     </div>
275     <br>
276
277       <div1 style=""><h1><font color="Black" size="6" font-family="Roboto">Hand Gesture Recognition</h1><br>
278       <p><i><font color="Black" size="4" fonr-family="sans-serif"></i>Provide an image for which you want to perform various operations</p>
279       <br>
280         <div>
281           <h4>Upload Image Here</h4>
282       <form action = "http://localhost:5000/" id="upload-file" method="post" enctype="multipart/form-data">
283         <label for="imageUpload" class="upload-label">
284           Choose...
285         </label>
286         <input type="file" name="image" id="imageUpload" accept=".png, .jpg, .jpeg,.pdf">
287       </form>
288           <center>
289       <div class="image-section" style="display:none;">
290         <div class="img-preview">
291           <div id="imagePreview">
292           </div>
293         </div>
294         <div>
```

```python
from flask import Flask,render_template,request
# Flask-It is our framework which we are going to use to run/serve our application.
#request-for accessing file which was uploaded by the user on our application.
import operator
import cv2 # opencv library
import matplotlib.pyplot as plt
import matplotlib.image as mpimg
import numpy as np
import os
from tensorflow.keras.models import load_model#to load our trained model
from werkzeug.utils import secure_filename

app = Flask(__name__,template_folder="templates") # initializing a flask app
# Loading the model
print(os.getcwd())
model=load_model('Flask/gesture.h5')
print("Loaded model from disk")

@app.route('/')# route to display the home page
def home():
    return render_template('home.html')#rendering the home page


@app.route('/intro') # routes to the intro page
def intro():
    return render_template('intro.html')#rendering the intro page

@app.route('/image1',methods=['GET','POST'])# routes to the index html
def image1():
    return render_template("launch.html")
```

home.html 9+   intro.html   launch.html 1   ● app.py   1 ✕

Flask > ● app.py > ...
```
1    from flask import Flask,render_template,request
2    💡Flask-It is our framework which we are going to use to run/serve our application.
3    #request-for accessing file which was uploaded by the user on our application.
```

PROBLEMS 16   DEBUG CONSOLE   OUTPUT   TERMINAL   JUPYTER   COMMENTS   Code

```
 * Serving Flask app 'app'
 * Debug mode: off
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit

[Done] exited with code=1 in 14.98 seconds

[Running] python -u "c:\Users\pmani\Desktop\Flask-20221115T170154Z-001\Flask\app.py"
2022-11-18 18:32:28.837386: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'cudart64_110.dll'; dlerror: cudart64_110.
dll not found
2022-11-18 18:32:28.837692: I tensorflow/stream_executor/cuda/cudart_stub.cc:29] Ignore above cudart dlerror if you do not have a GPU set up on your machine.
c:\Users\pmani\Desktop\Flask-20221115T170154Z-001
2022-11-18 18:32:32.097451: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'nvcuda.dll'; dlerror: nvcuda.dll not found
2022-11-18 18:32:32.097755: W tensorflow/stream_executor/cuda/cuda_driver.cc:263] failed call to cuInit: UNKNOWN ERROR (303)
2022-11-18 18:32:32.102222: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:169] retrieving CUDA diagnostic information for host: LAPTOP-9IKNADME
2022-11-18 18:32:32.102737: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:176] hostname: LAPTOP-9IKNADME
2022-11-18 18:32:32.103247: I tensorflow/core/platform/cpu_feature_guard.cc:193] This TensorFlow binary is optimized with oneAPI Deep Neural Network Library (oneDNN)
to use the following CPU instructions in performance-critical operations:  AVX AVX2
To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
Loaded model from disk
 * Serving Flask app 'app'
 * Debug mode: off
WARNING: This    Follow link (ctrl + click)    er. Do not use it in a production deployment. Use a production WSGI server instead.
 * Running on http://127.0.0.1:5000
Press CTRL+C to quit
```

Ln 1, Col 1 (575 selected)   Spaces: 4   UTF-8   CRLF   Python   3.10.4 64-bit   Go Live

INTRODUCTION

👆 Hand Gesture recognition system provides us an innovative, natural, user friendly way of interaction with the computer which is more familiar to the human beings.

👆 In our project, the hand region is extracted from the background by using Region of intrest.

✋ Then, we will be predicting the labels based on the CNN trained model weights of hand gestures using that predicted labels we apply if conditions to control some of the actions