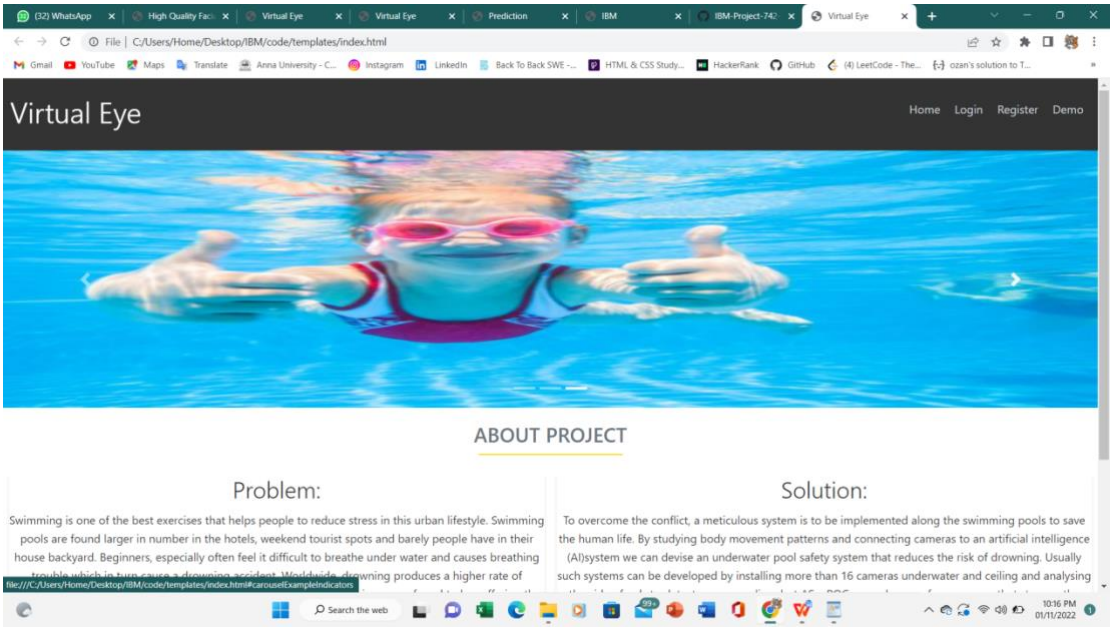
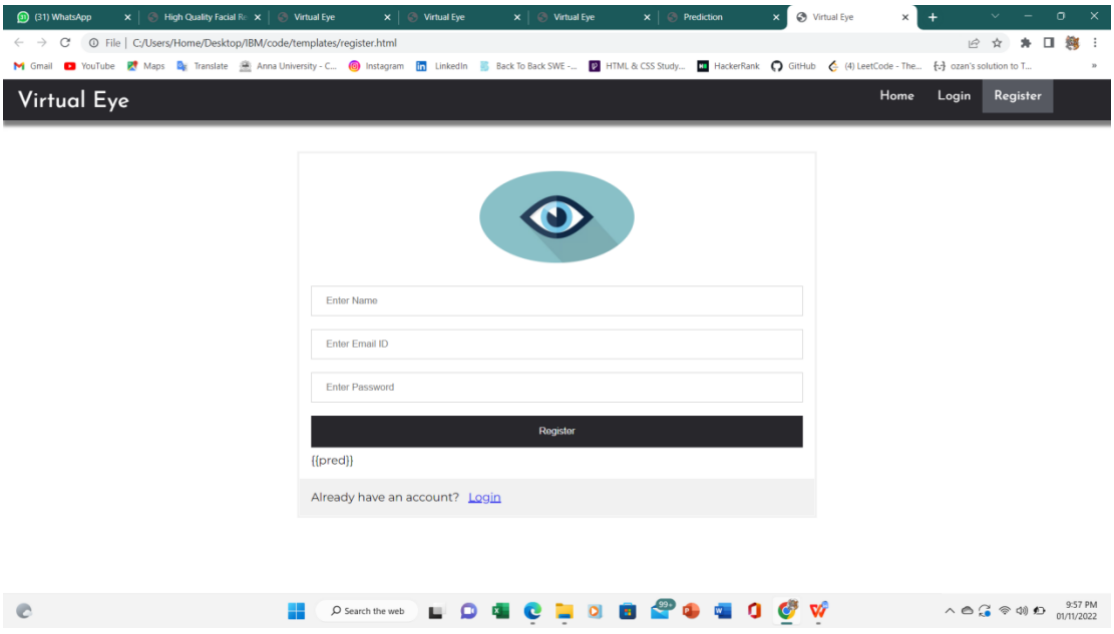
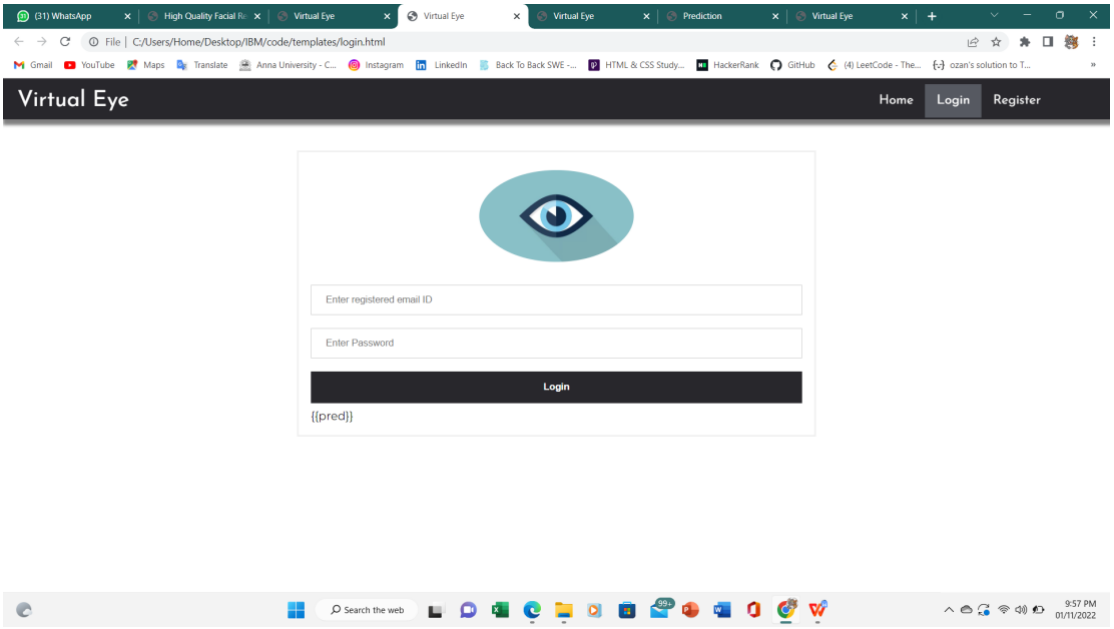
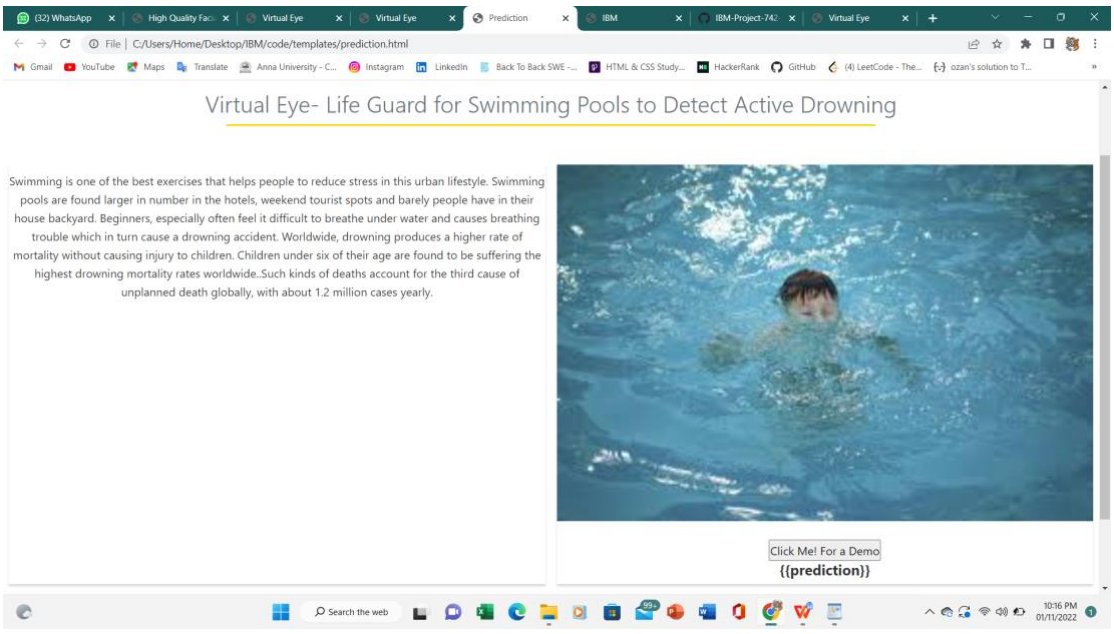
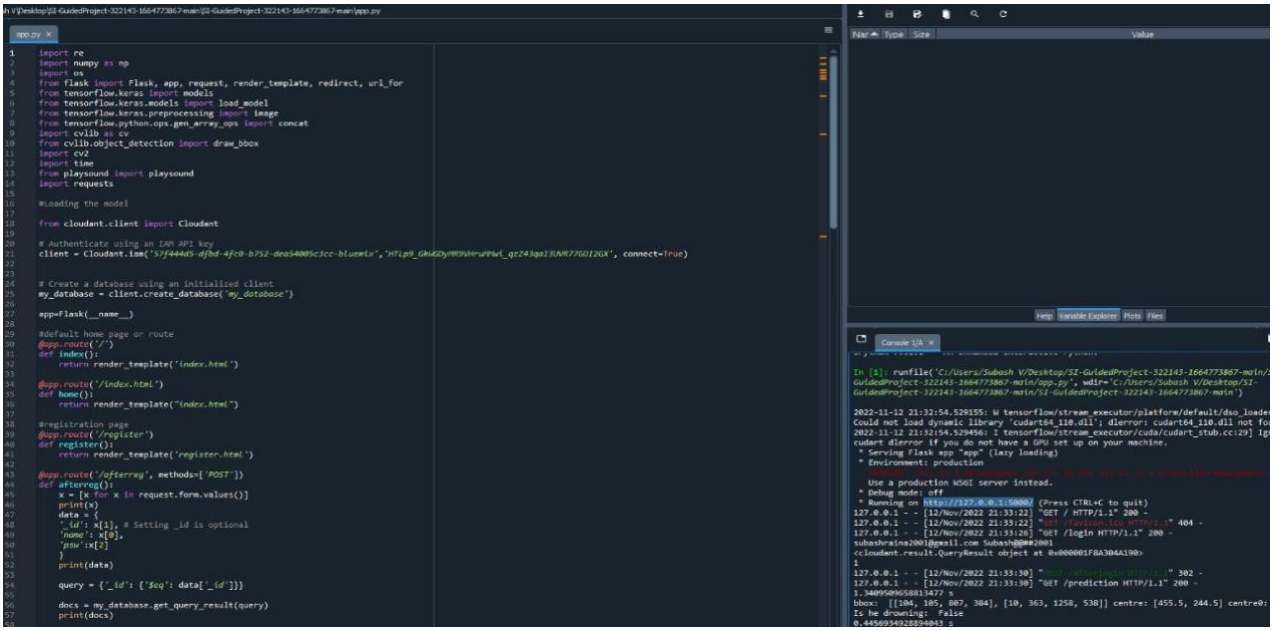

Virtual Eye
Home
Login
Register
Demo
ABOUT PROJECT
Problem:
Swimming is one of the best exercises that helps people to reduce stress in this urban lifestyle. Swimming pools are found larger in number in the hotels, weekend tourist spots and barely people have in their house backyard. Beginners, especially often feel it difficult to breathe under water and causes breathing
Solution:
To overcome the conflict, a meticulous system is to be implemented along the swimming pools to save the human life. By studying body movement patterns and connecting cameras to an artificial intelligence (AI)system we can devise an underwater pool safety system that reduces the risk of drowning. Usually such systems can be developed by installing more than 16 cameras underwater and ceiling and analysing


Virtual Eye
Home
Login
Register
Enter Name
Enter Email ID
Enter Password
Register
{{pred}}
Already have an account? Login


Virtual Eye
Home
Login
Register
Enter registered email ID
Enter Password
Login
{{pred}}

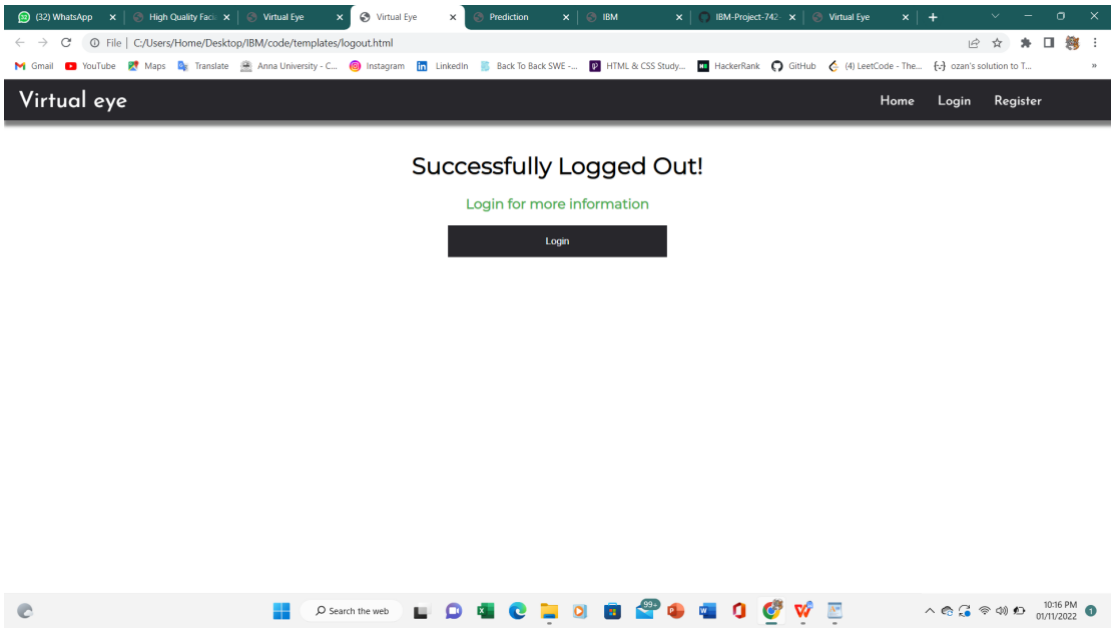



Virtual Eye- Life Guard for Swimming Pools to Detect Active Drowning
Swimming is one of the best exercises that helps people to reduce stress in this urban lifestyle. Swimming pools are found larger in number in the hotels, weekend tourist spots and barely people have in their house backyard. Beginners, especially often feel it difficult to breathe under water and causes breathing trouble which in turn cause a drowning accident. Worldwide, drowning produces a higher rate of mortality without causing injury to children. Children under six of their age are found to be suffering the highest drowning mortality rates worldwide..Such kinds of deaths account for the third cause of unplanned death globally, with about 1.2 million cases yearly.
Click Me! For a Demo
{{prediction}}

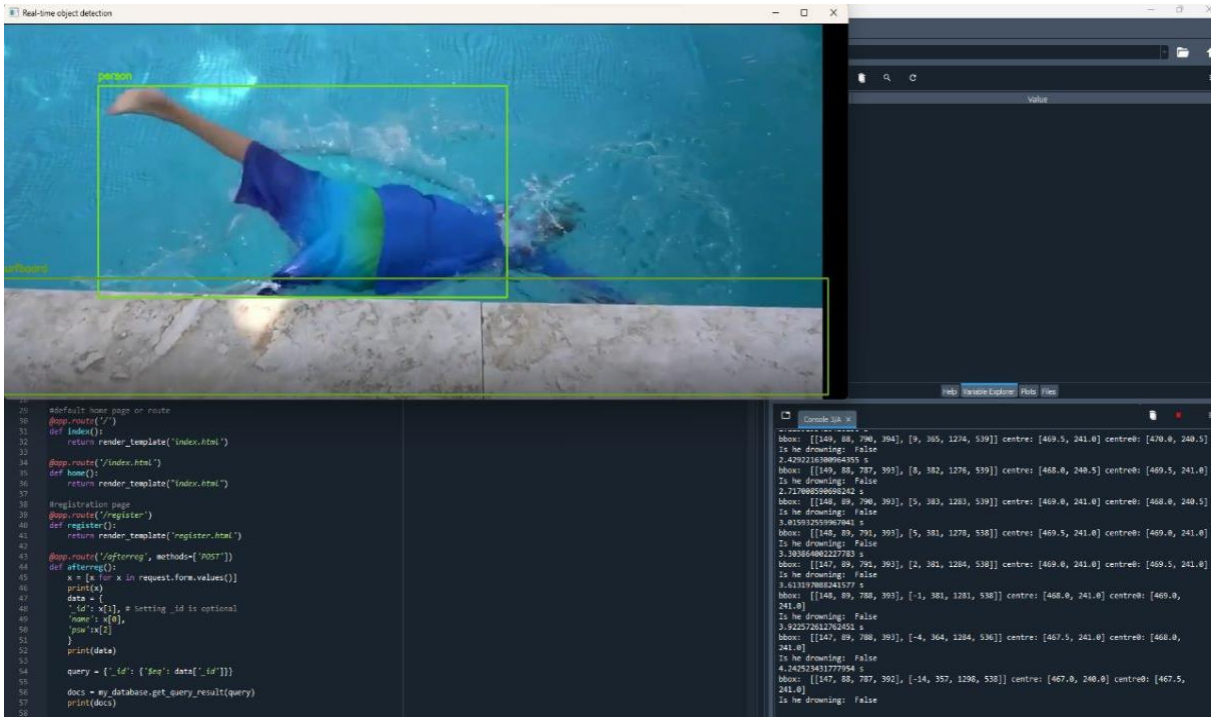


```
import re
import numpy as np
import os
from flask import Flask, app, request, render_template, redirect, url_for
from tensorflow.keras import models
from tensorflow.keras.models import load_model
from tensorflow.keras.preprocessing import image
from tensorflow.python.ops.gen_array_ops import concat
import cvlib as cv
from cvlib.object_detection import draw_bbox
import cv2
import time
from playsound import playsound
import requests

#Loading the model

from cloudant.client import Cloudant

# Authenticate using an IAM API key
client = Cloudant.iam('37f444d5-dfbd-4fc0-b752-dea54005c3cc-bluemix','HTLp9_GHdGDyMR9vHruP8wl_qz243qaI3UNR77GOI2GK', connect=True)


# Create a database using an initialized client
my_database = client.create_database('my_database')

app=Flask(__name__)

#default home page or route
@app.route('/')
def index():
    return render_template('index.html')

@app.route('/index.html')
def home():
    return render_template("index.html")

#registration page
@app.route('/register')
def register():
    return render_template('register.html')

@app.route('/afterreg', methods=['POST'])
def afterreg():
    x = [x for x in request.form.values()]
    print(x)
    data = {
    '_id': x[1], # Setting _id is optional
    'name': x[0],
    'psw':x[2]
    }
    print(data)

    query = {'_id': {'$eq': data['_id']}}

    docs = my_database.get_query_result(query)
    print(docs)
```

```
In [1]: runfile('C:/Users/Subash V/Desktop/SI-GuidedProject-322143-1664773867-main/SI-GuidedProject-322143-1664773867-main/app.py', wdir='C:/Users/Subash V/Desktop/SI-GuidedProject-322143-1664773867-main/SI-GuidedProject-322143-1664773867-main')

2022-11-12 21:32:54.529155: W tensorflow/stream_executor/platform/default/dso_loader
Could not load dynamic library 'cudart64_110.dll'; dlerror: cudart64_110.dll not fo
2022-11-12 21:32:54.529456: I tensorflow/stream_executor/cuda/cudart_stub.cc:29] Ig
cudart dlerror if you do not have a GPU set up on your machine.
 * Serving Flask app "app" (lazy loading)
 * Environment: production
   Use a production WSGI server instead.
 * Debug mode: off
 * Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
127.0.0.1 - - [12/Nov/2022 21:33:22] "GET / HTTP/1.1" 200 -
127.0.0.1 - - [12/Nov/2022 21:33:22] "GET /favicon.ico HTTP/1.1" 404 -
127.0.0.1 - - [12/Nov/2022 21:33:26] "GET /login HTTP/1.1" 200 -
subashraina2001@gmail.com Subash@###2001
<cloudant.result.QueryResult object at 0x000001F8A3044190>
1
127.0.0.1 - - [12/Nov/2022 21:33:30] "GET /afterlogin HTTP/1.1" 302 -
127.0.0.1 - - [12/Nov/2022 21:33:30] "GET /prediction HTTP/1.1" 200 -
1.3409509658813477 s
bbox:  [[104, 105, 807, 384], [10, 363, 1258, 538]] centre: [455.5, 244.5] centre0:
Is he drowning:  False
0.4456934928894043 s
```




rown_video


Real-time object detection
person
#default home page or route
@app.route('/')
def index():
return render_template('index.html')
@app.route('/index.html')
def home():
return render_template("index.html")
#registration page
@app.route('/register')
def register():
return render_template('register.html')
@app.route('/afterreg', methods=['POST'])
def afterreg():
x = [x for x in request.form.values()]
print(x)
data = {
'_id': x[1], # setting _id is optional
'name': x[0],
'psw':x[2]
}
print(data)
query = {'_id': {'$eq': data['_id']}}
docs = my_database.get_query_result(query)
print(docs)
Value
Help
Variable Explorer
Plots
Files
Console 3/A
bbox: [[149, 88, 790, 394], [9, 365, 1274, 539]] centre: [469.5, 241.0] centre0: [470.0, 240.5]
Is he drowning: False
2.4292216300964355 s
bbox: [[149, 88, 787, 393], [8, 382, 1276, 539]] centre: [468.0, 240.5] centre0: [469.5, 241.0]
Is he drowning: False
2.7170085906982422 s
bbox: [[148, 89, 790, 393], [5, 383, 1283, 539]] centre: [469.0, 241.0] centre0: [468.0, 240.5]
Is he drowning: False
3.0159325599670041 s
bbox: [[148, 89, 791, 393], [5, 381, 1278, 538]] centre: [469.5, 241.0] centre0: [469.0, 241.0]
Is he drowning: False
3.3038640022277283 s
bbox: [[147, 89, 791, 393], [2, 381, 1284, 538]] centre: [469.0, 241.0] centre0: [469.5, 241.0]
Is he drowning: False
3.613197088241577 s
bbox: [[148, 89, 788, 393], [-1, 381, 1281, 538]] centre: [468.0, 241.0] centre0: [469.0,
241.0]
Is he drowning: False
3.922572612762451 s
bbox: [[147, 89, 788, 393], [-4, 364, 1284, 536]] centre: [467.5, 241.0] centre0: [468.0,
241.0]
Is he drowning: False
4.2425234317779541 s
bbox: [[147, 88, 787, 392], [-14, 357, 1298, 538]] centre: [467.0, 240.0] centre0: [467.5,
241.0]
Is he drowning: False

```
Is he drowning:  False
6.324376583099365 s
bbox:  [[158, 193, 931, 524]] centre: [544.5, 358.5] centre0: [544.0, 358.5]
Is he drowning:  False
6.622994661331177 s
bbox:  [[156, 193, 932, 524]] centre: [544.0, 358.5] centre0: [544.5, 358.5]
Is he drowning:  False
6.92524790763855 s
bbox:  [[158, 193, 931, 524]] centre: [544.5, 358.5] centre0: [544.0, 358.5]
Is he drowning:  False
7.2313385009765625 s
bbox:  [[156, 193, 932, 524]] centre: [544.0, 358.5] centre0: [544.5, 358.5]
Is he drowning:  False
7.54045557975769 s
bbox:  [[158, 193, 931, 524]] centre: [544.5, 358.5] centre0: [544.0, 358.5]
Is he drowning:  False
7.851455211639404 s
bbox:  [[156, 193, 932, 524]] centre: [544.0, 358.5] centre0: [544.5, 358.5]
Is he drowning:  False
8.150441646575928 s
bbox:  [[158, 193, 931, 524]] centre: [544.5, 358.5] centre0: [544.0, 358.5]
Is he drowning:  False
8.452259063720703 s
bbox:  [[156, 193, 932, 524]] centre: [544.0, 358.5] centre0: [544.5, 358.5]
Is he drowning:  False
8.756284713745117 s
bbox:  [[158, 193, 931, 524]] centre: [544.5, 358.5] centre0: [544.0, 358.5]
Is he drowning:  False
9.065996885299683 s
bbox:  [[156, 193, 932, 524]] centre: [544.0, 358.5] centre0: [544.5, 358.5]
Is he drowning:  False
9.358615636825562 s
bbox:  [[158, 193, 931, 524]] centre: [544.5, 358.5] centre0: [544.0, 358.5]
Is he drowning:  False
9.663218021392822 s
bbox:  [[156, 193, 932, 524]] centre: [544.0, 358.5] centre0: [544.5, 358.5]
Is he drowning:  False
9.964755535125732 s
bbox:  [[158, 193, 931, 524]] centre: [544.5, 358.5] centre0: [544.0, 358.5]
Is he drowning:  False
10.273132085800171 s
bbox:  [[156, 193, 932, 524]] centre: [544.0, 358.5] centre0: [544.5, 358.5]
Is he drowning:  True

    Error 263 for command:
        close alarm.mp3
    The specified device is not open or is not recognized by MCI.
Failed to close the file: alarm.mp3
127.0.0.1 - - [12/Nov/2022 22:34:21] "POST /result HTTP/1.1" 200 -
```