

Project Development Phase

Sprint 4 – Test Cases

DATE	17/11/2022
TEAM ID	PNT2022TMID06940
PROJECT NAME	Virtual Eye - Life Guard for Swimming Pools to Detect Active Drowning
MAX MARKS	4 MARKS

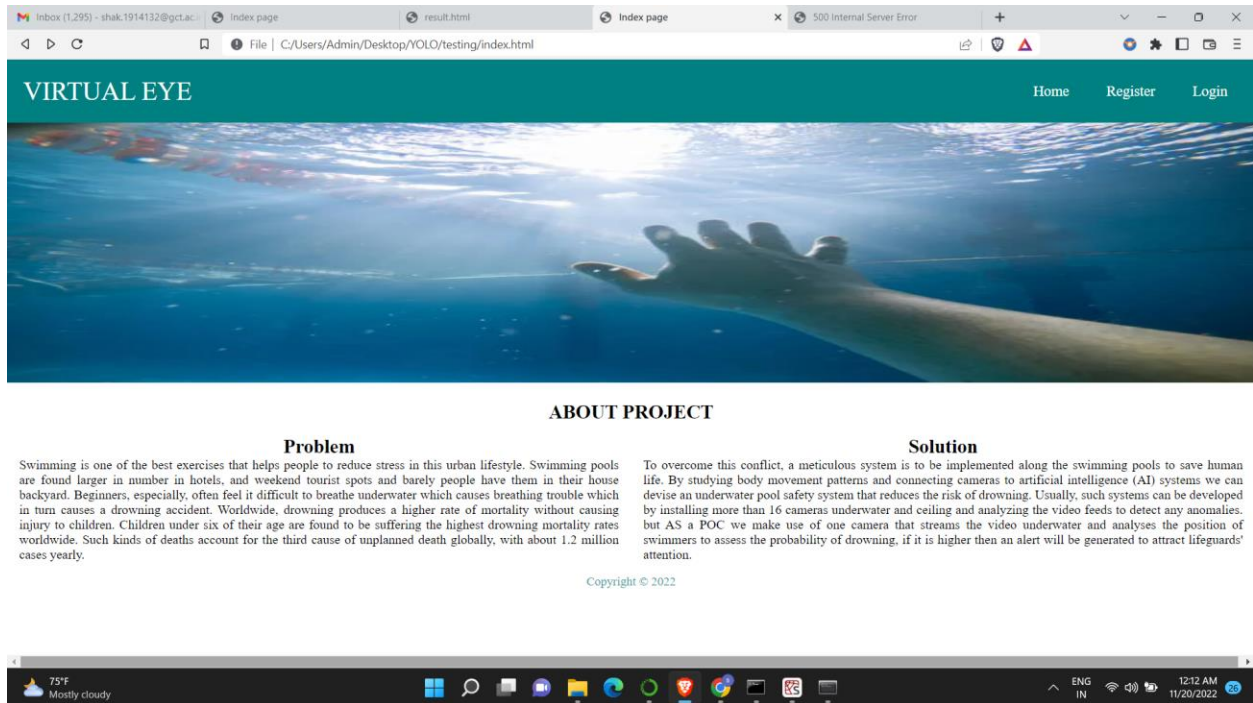
1: Run the application

In the command prompt, navigate to the folder in which the flask app is present. When the python file is executed, the localhost is activated on 5000 port (<http://127.0.0.1:5000/>) and can be accessed through it.

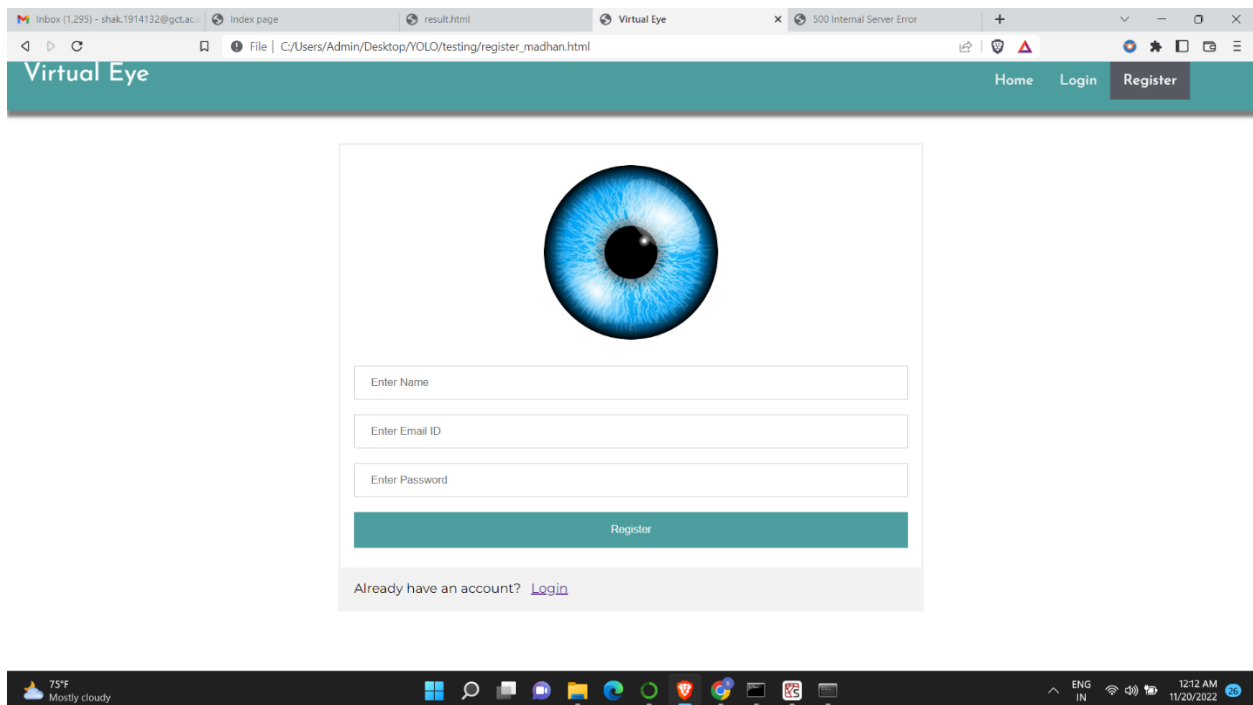
The screenshot shows the Spyder Python IDE interface. The main editor displays a Python script for object detection using OpenCV and Flask. The script includes logic for calculating the center of a bounding box, checking for movement thresholds, and rendering a template. The console output shows the following:

```
In [4]: runfile('C:/Users/Admin/Desktop/YOLO/Code/app.py', wdir='C:/Users/Admin/Desktop/YOLO/Code')
# Loading module: cv2: object detection
* Serving Flask app "app" (lazy loading)
* Environment: production
  WARNING: This is a development server. Do not use it in a production environment.
  Use a production WSGI server instead.
* Debug mode: off
* Running on http://127.0.0.1:5000/ (Press CTRL+C to quit)
```

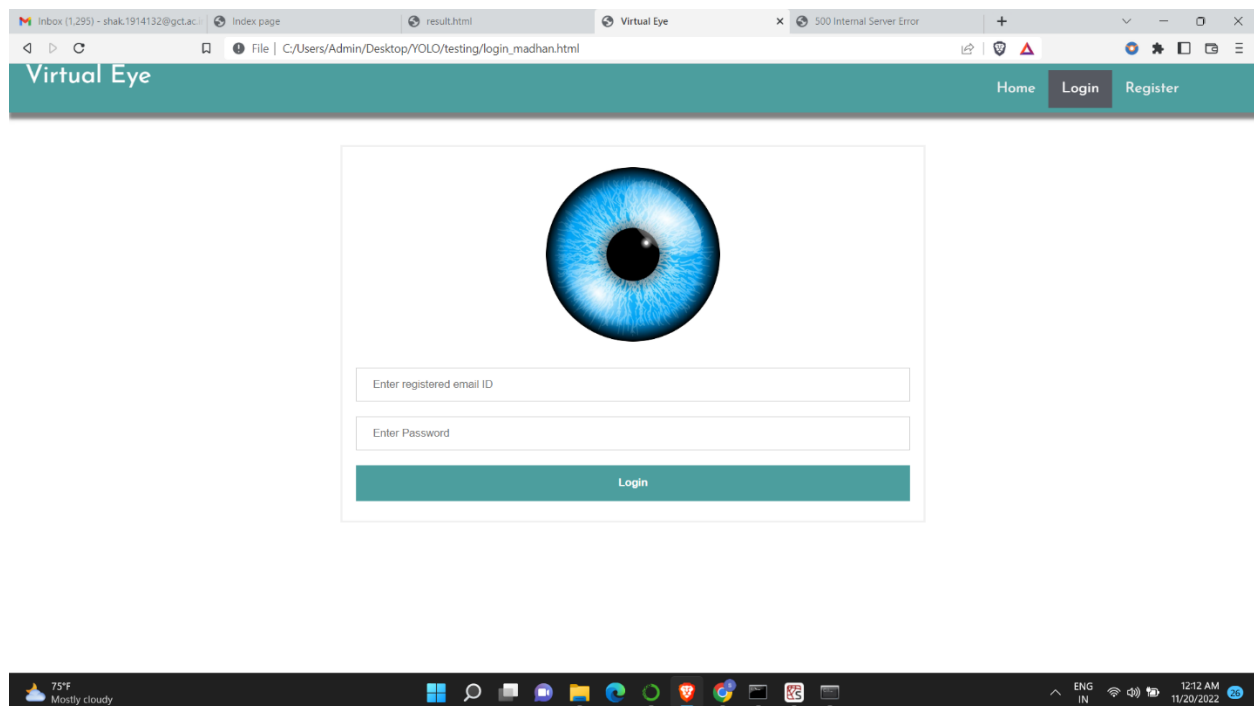
2: Open the browser and navigate to <http://127.0.0.1:5000> to check your application
 The home page looks like this. You can click on login or register



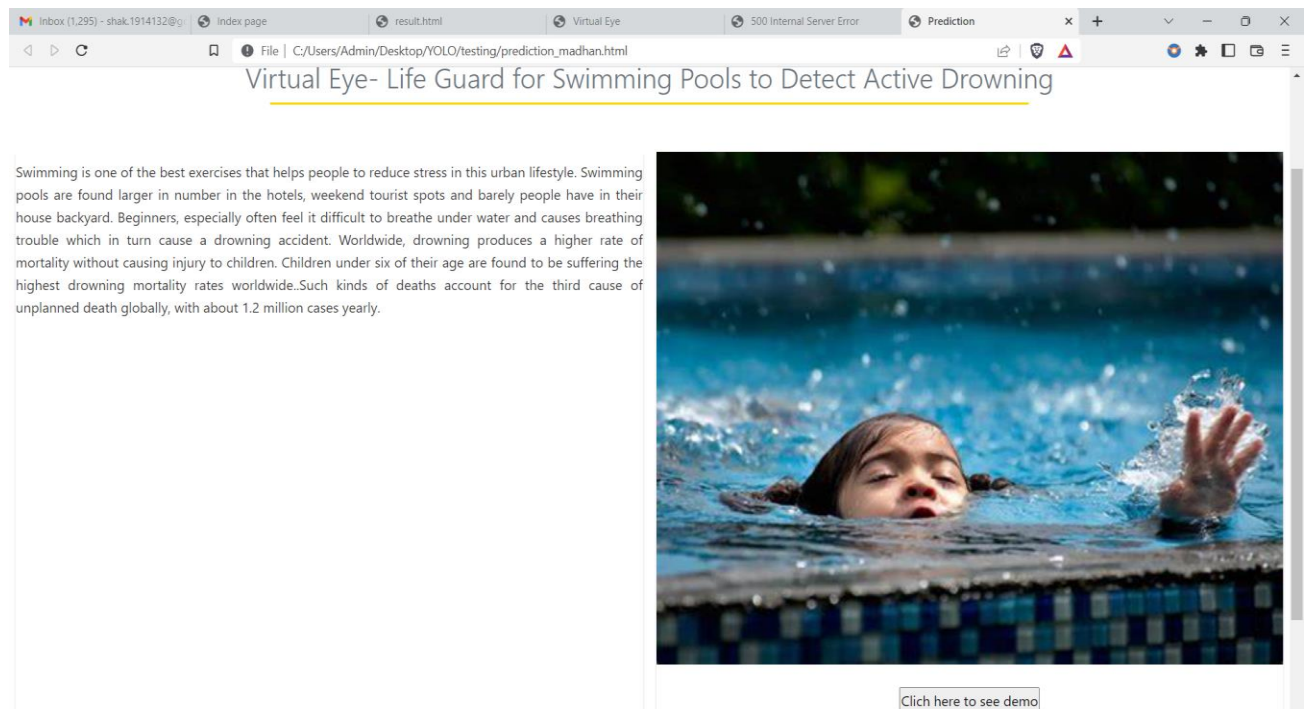
Enter the details for the registration to the virtual eye technology



While logging in you need to provide your registered credentials



After successfully login you will redirect to the prediction page where we have to click on the demo button to launch the open cv window for video analysis.



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 here to see demo](#)

OUTPUT

Virtual Eye- Lite Guard for Swimming Pools to Detect Active Drowning

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[Click here to see demo](#)

Emergency!!The person is drowning

```
3.3050210930517305 s
bbox: [[692, -6, 1824, 1078]] centre: [1258.0, 536.0] centre0: [1267.0, 529.0]
Is he drowning: False
4.6680638790130615 s
bbox: [[681, 12, 1855, 1060]] centre: [1268.0, 536.0] centre0: [1258.0, 536.0]
Is he drowning: False
5.797983884811401 s
bbox: [[692, 6, 1854, 1070]] centre: [1273.0, 538.0] centre0: [1268.0, 536.0]
Is he drowning: False
6.924486398696899 s
bbox: [[680, 0, 1858, 1070]] centre: [1269.0, 535.0] centre0: [1273.0, 538.0]
Is he drowning: False
7.971890926361084 s
bbox: [[672, 6, 1866, 1062]] centre: [1269.0, 534.0] centre0: [1269.0, 535.0]
Is he drowning: False
9.052837371826172 s
bbox: [[676, 14, 1882, 1066]] centre: [1279.0, 540.0] centre0: [1269.0, 534.0]
Is he drowning: False
10.183572053909302 s
bbox: [[686, 22, 1876, 1062]] centre: [1281.0, 542.0] centre0: [1279.0, 540.0]
Is he drowning: True
```