Computer Vision - 4th Computer & Systems (FEHU)

Supervisor: Dr.Motasem Elshourbagy

Smart Face Identifier & Styler

Our Team:

Noor El Deen Magdy

Hady Mohamed

Ali Fathy

Rania Mostafa

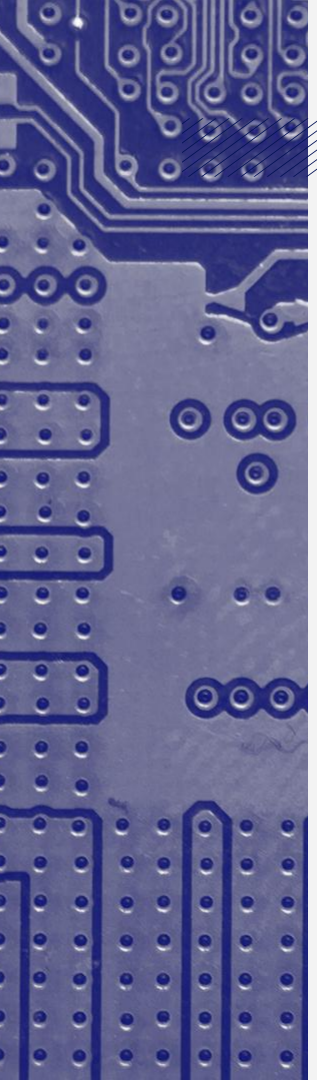


Table of Contents- Smart Face Identifier & Styler

01. Project Environment

02. Project Idea

03. Face Detection

04. People Identifier

05. Image Segmentation

06. Screen Painter

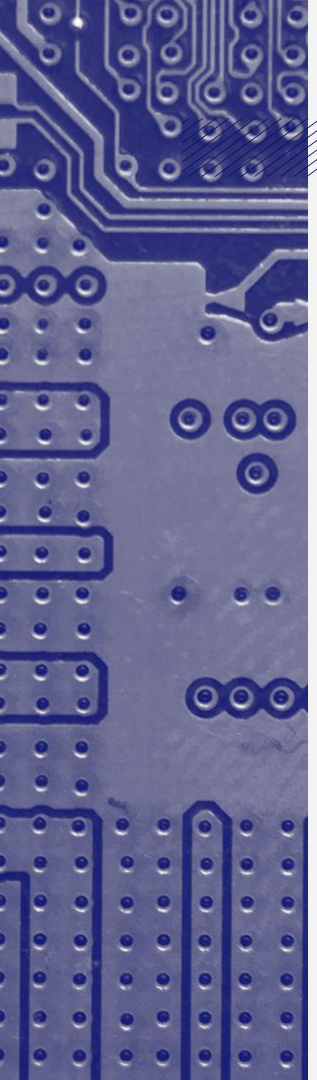


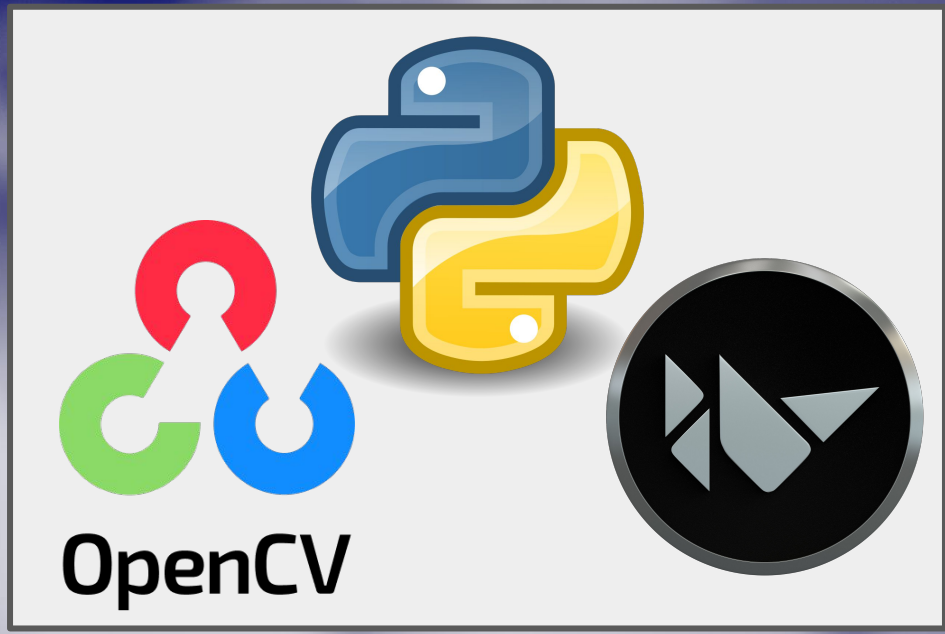
Table of Contents- Smart Face Identifier & Styler

07. Style Transfer

08. Capture and save output.

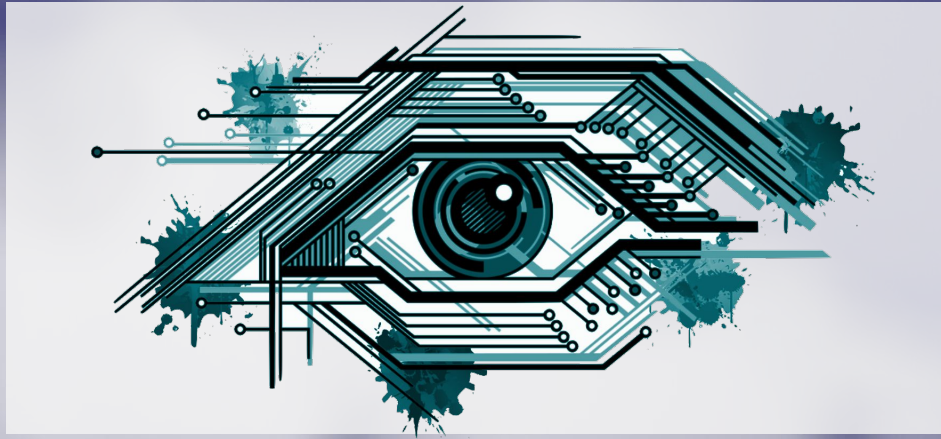
09. Use Case Diagram

Project Environment



The Project environment can be summarized into 3 parts:	
1- Main programming language.	Project as whole was written in Python.
2- Logic.	Project logic is mainly based on OpenCV library in Python.
3- GUI.	Project GUI was made with Kivy framework in Python.

Project Idea

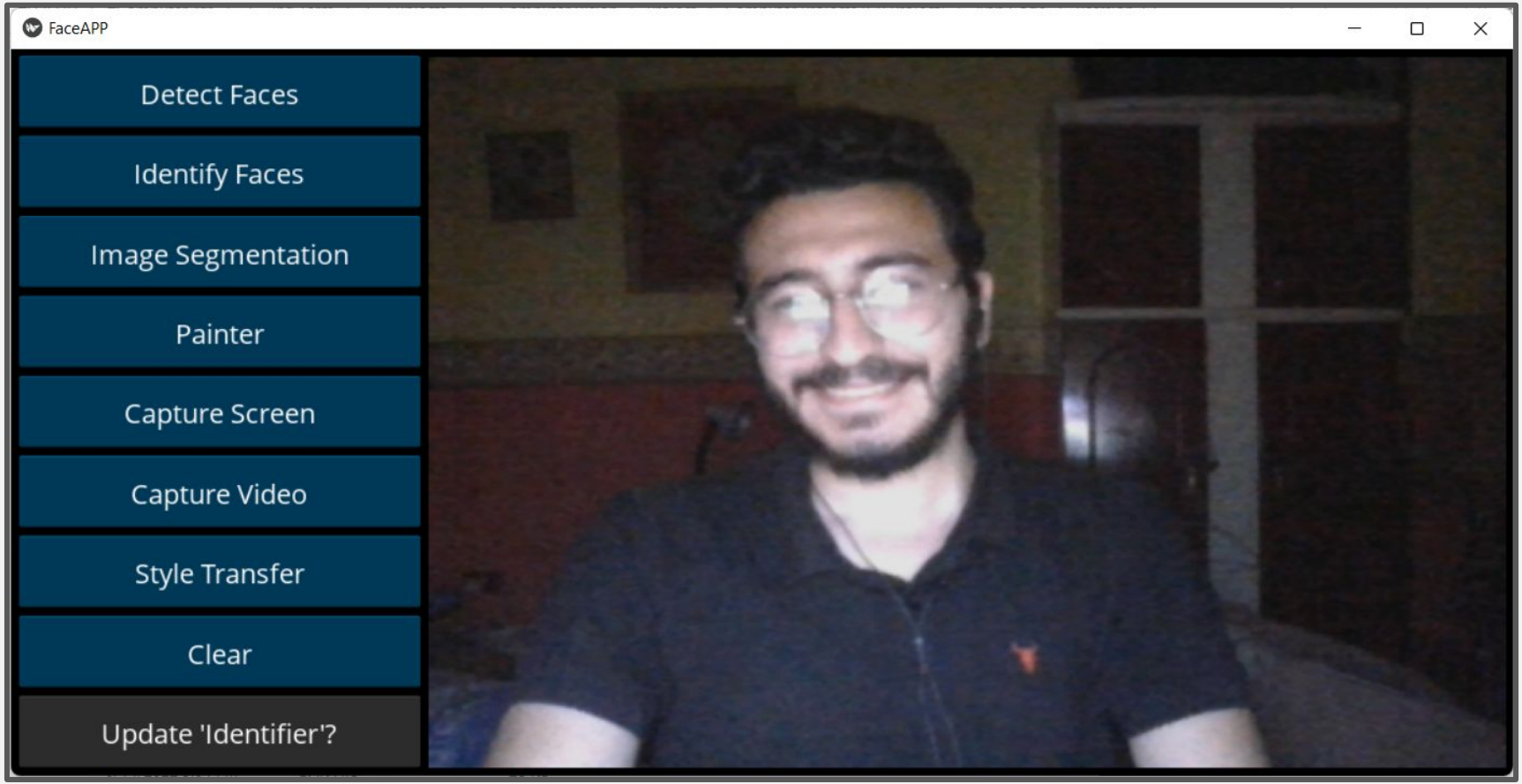


Project Idea and Environment.

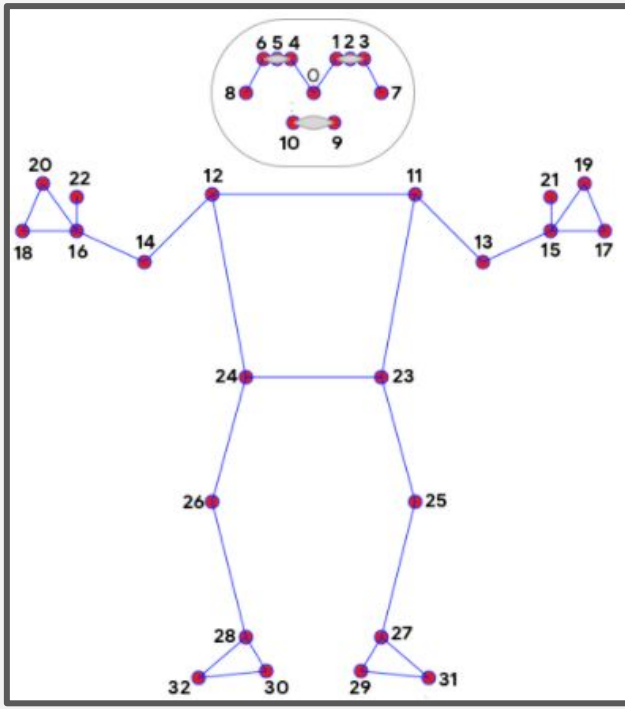
The Project mainly can do:		
0- Open Camera to Capture Stream and Overall Idea.	(Once the app is launched)	✅
1- Detect Human Face(s).	(Function)	✅
2- Identify People.	(Uses Faces Folder)	✅
3- Update Faces.	(Update Faces Folder)	✅
4- Apply Image Edge Detection and Segmentation filter.	(Function)	✅
5- Paint on Screen.	(Function)	✅

The Project mainly can do:		
6- Adding Style Transfer.	(Function)	✅
7- Capture and Save Camera Output.	(To Gallery Folder)	✅

Start Screen // Project Idea

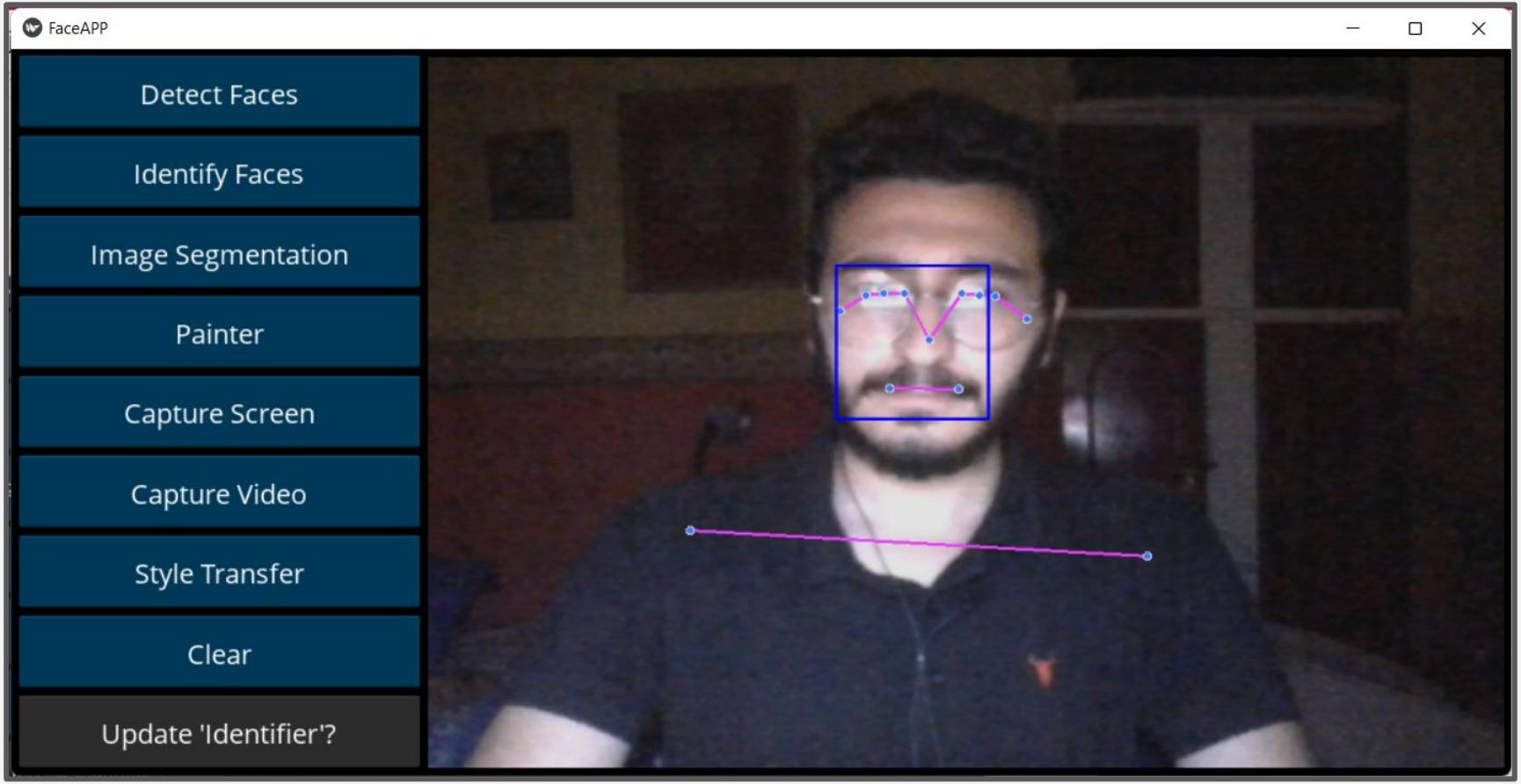


Apply "Detect Faces" Screen // Project Idea

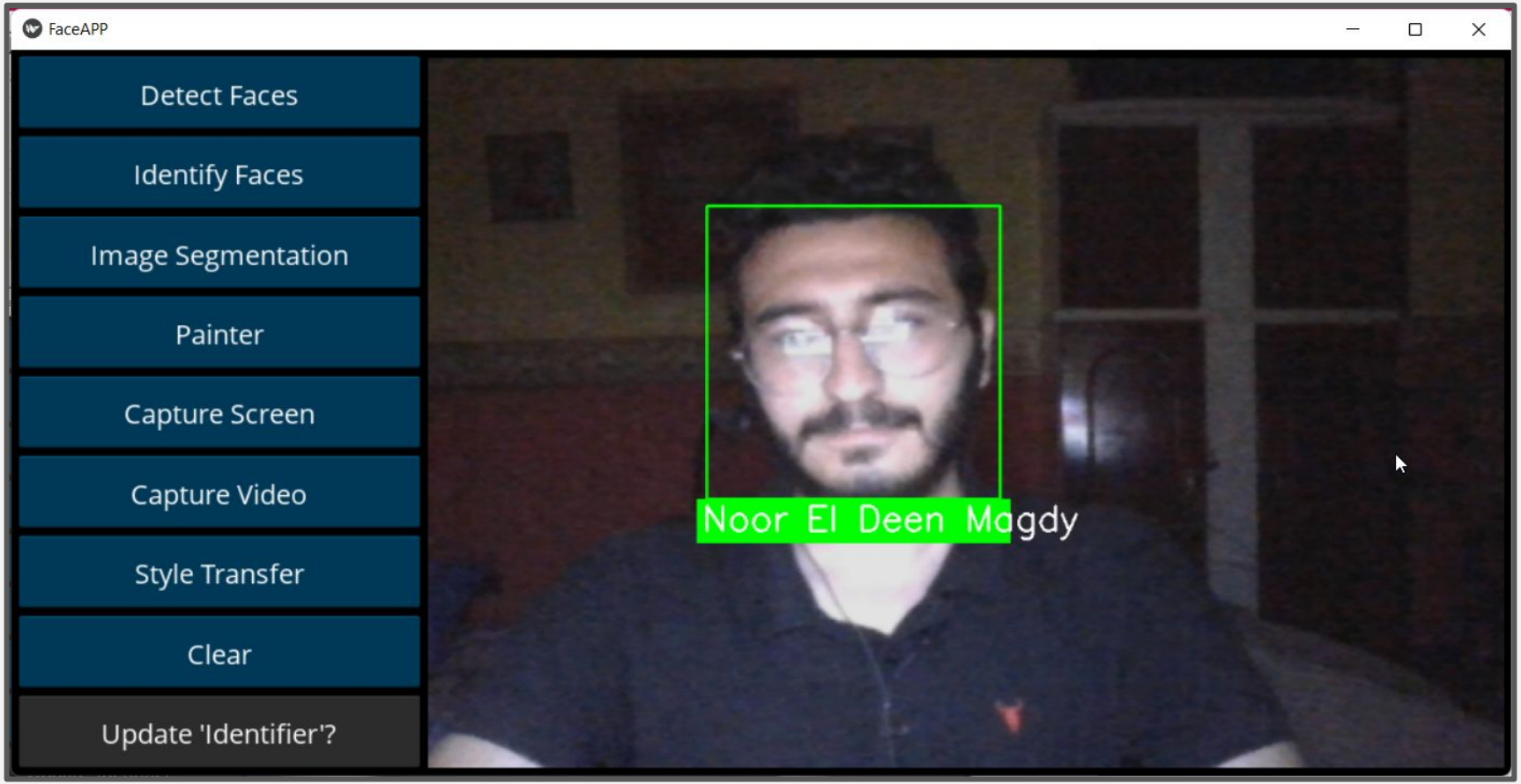


0. nose
1. left_eye_inner
2. left_eye
3. left_eye_outer
4. right_eye_inner
5. right_eye
6. right_eye_outer
7. left_ear
8. right_ear
9. mouth_left
10. mouth_right
11. left_shoulder
12. right_shoulder
13. left_elbow
14. right_elbow
15. left_wrist
16. right_wrist
17. left_pinky
18. right_pinky
19. left_index
20. right_index
21. left_thumb
22. right_thumb
23. left_hip
24. right_hip
25. left_knee
26. right_knee
27. left_ankle
28. right_ankle
29. left_heel
30. right_heel
31. left_foot_index
32. right_foot_index

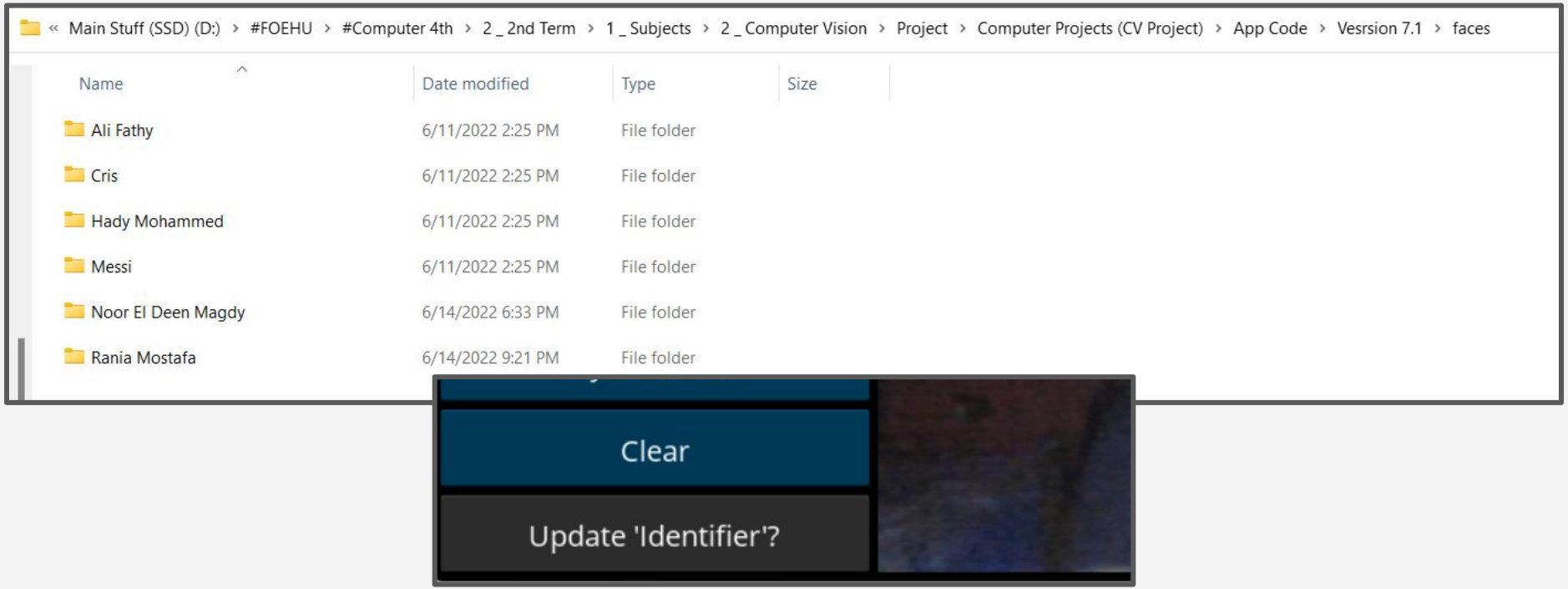
Apply "Detect Faces" Screen // Project Idea



Apply "Identify Faces" Screen // Project Idea

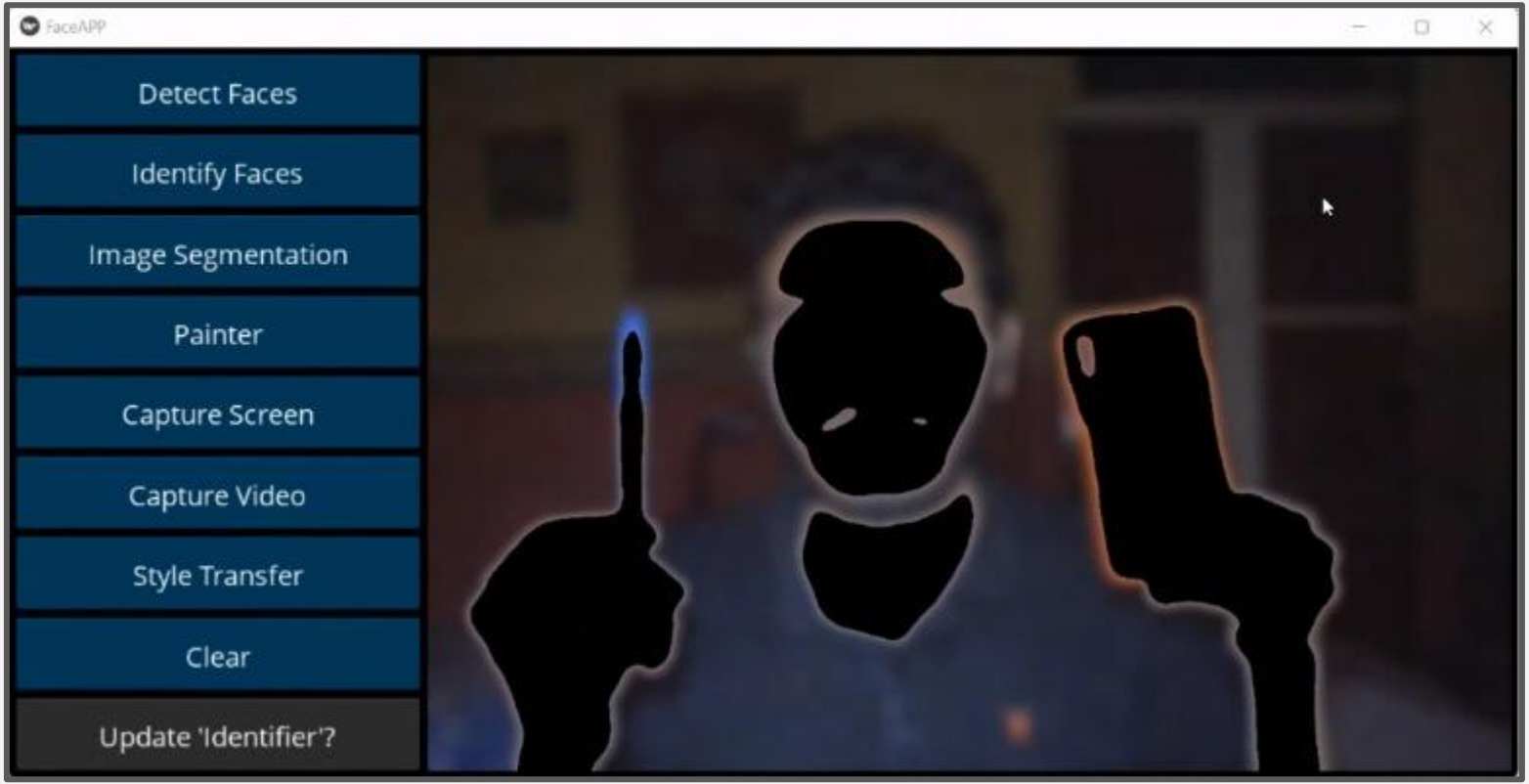


Apply "Update Identifier" Screen // Project Idea

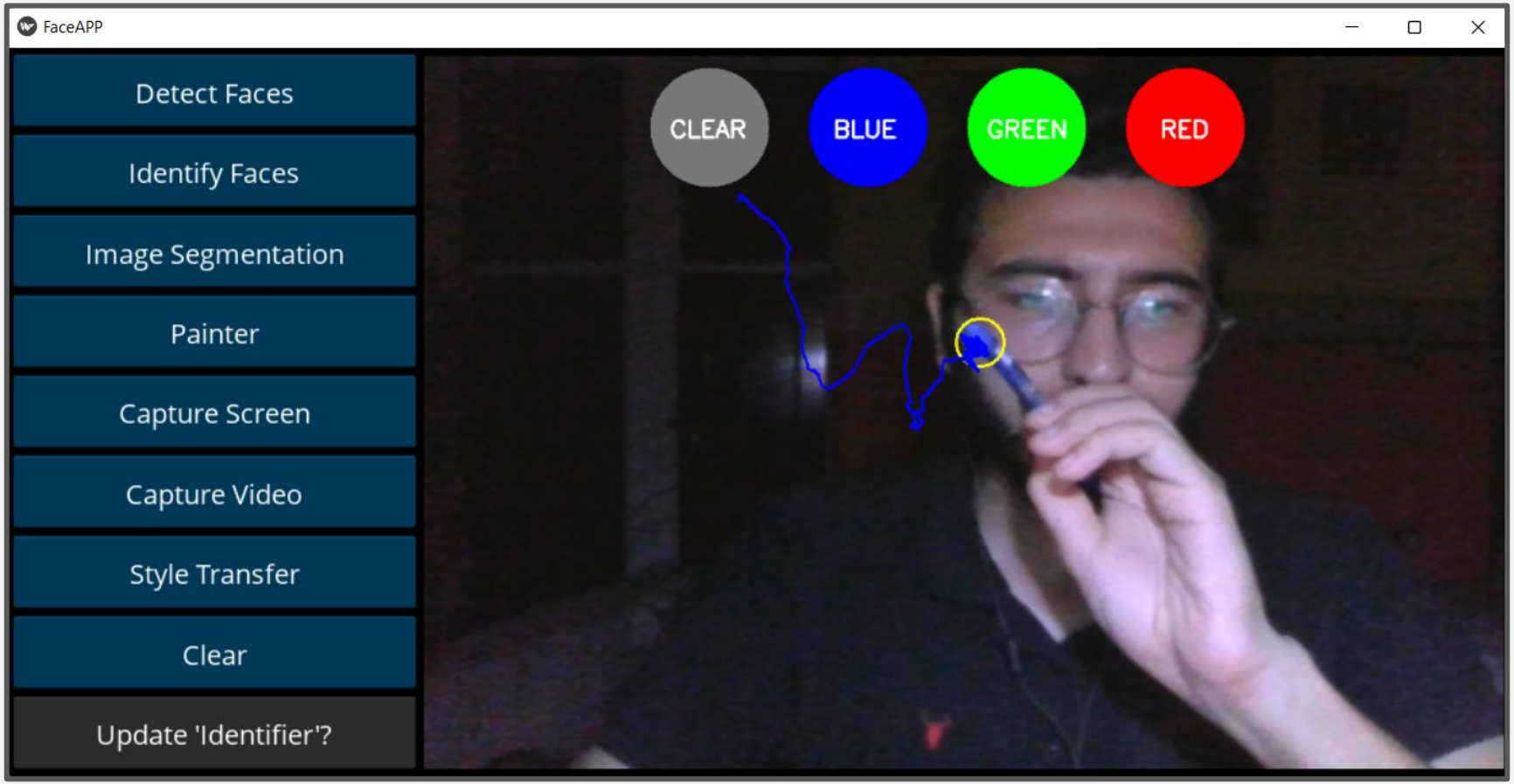


Apply "Image Segmentation" Screen // Project Idea

Apply "Image Segmentation" Screen // Project Idea



Apply "Painter" Screen // Project Idea

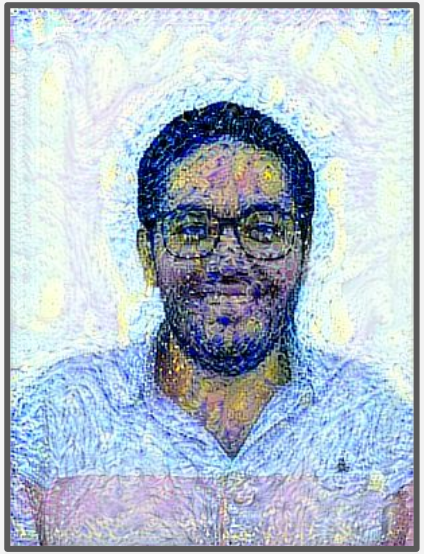


Apply "Style Transfer" Screen // Project Idea

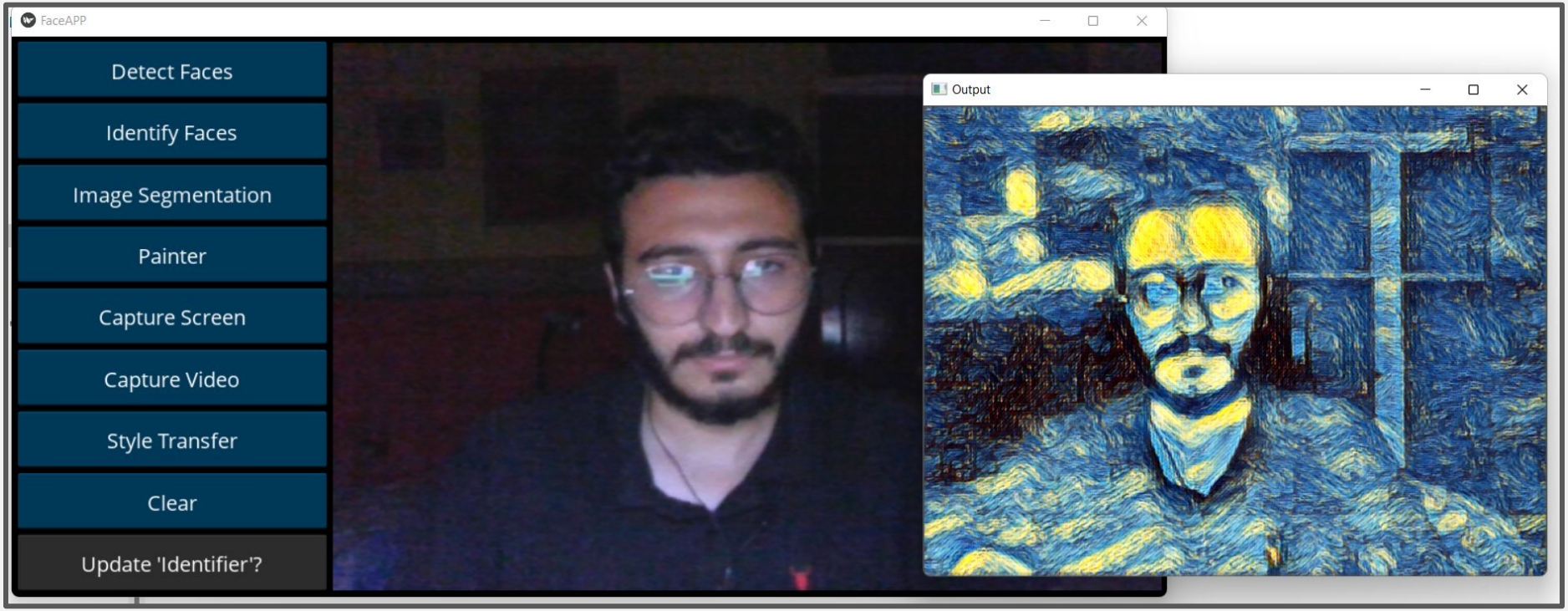
Apply "Style Transfer" Screen // Project Idea

+

=



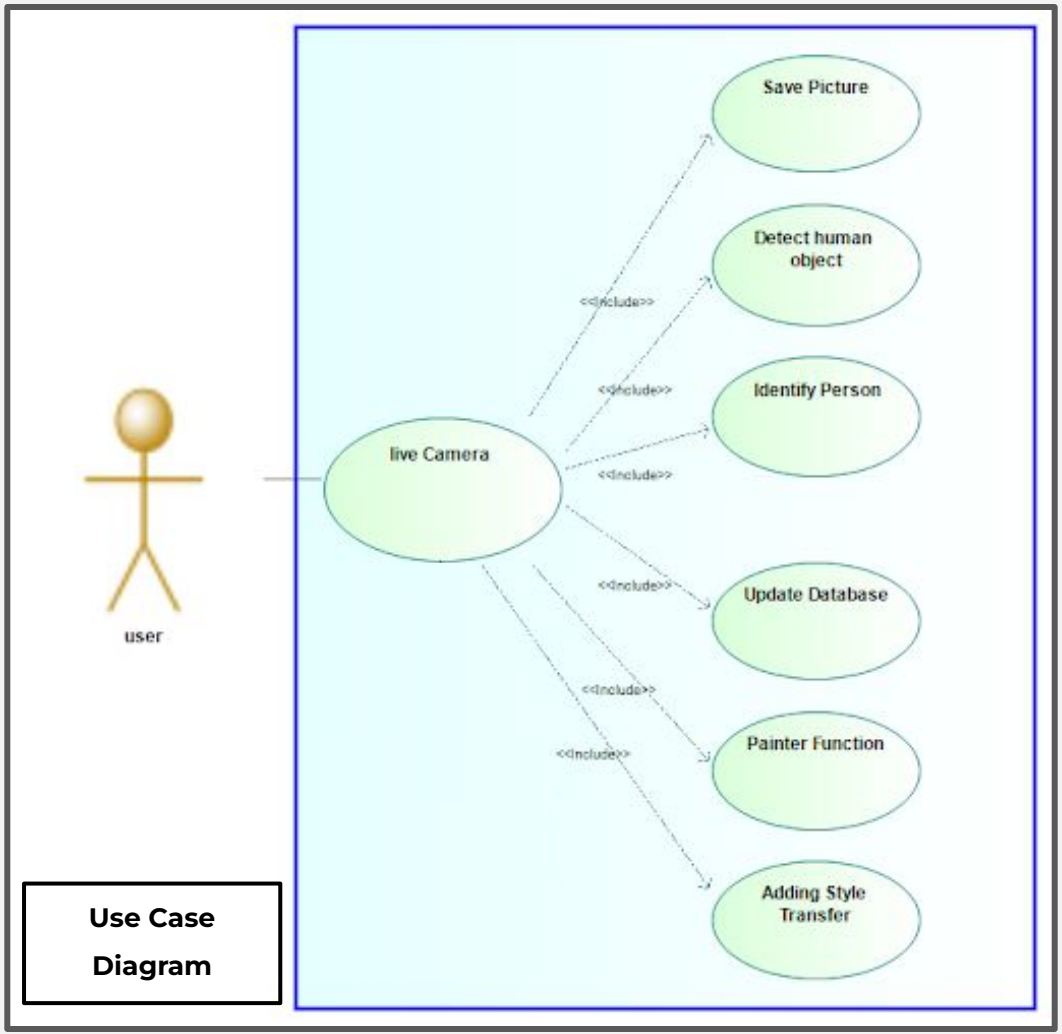
Apply "Style Transfer" Screen // Project Idea



Notes:
1- Clear button just clear the screen from any applied operation
2- Capture button as mentioned before just capture camera stream and save it to gallery.
3- Update 'Identifier' button mentioned before just update the Faces Database that contains the faces of people should Identifier know.

Use-Case Diagram: Smart Face Identifier & Styler

Use-Case Diagram



Use Case Diagram

THANKS!