

## INSTRUCTION:

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### Goal of the Project:

In class 134, you had extended the code of class no.133 and made the web app from static object detection to dynamic object detection using webcam live view.

**AI BABY MONITORING WEB APP** - This web application will extend the code which you have written in the current class which is class no. 134.

**AI BABY MONITORING WEB APP** meaning if a defined object (human, any non-living) is not in front of the camera an alarm OR an audio file will be played.

### Story:

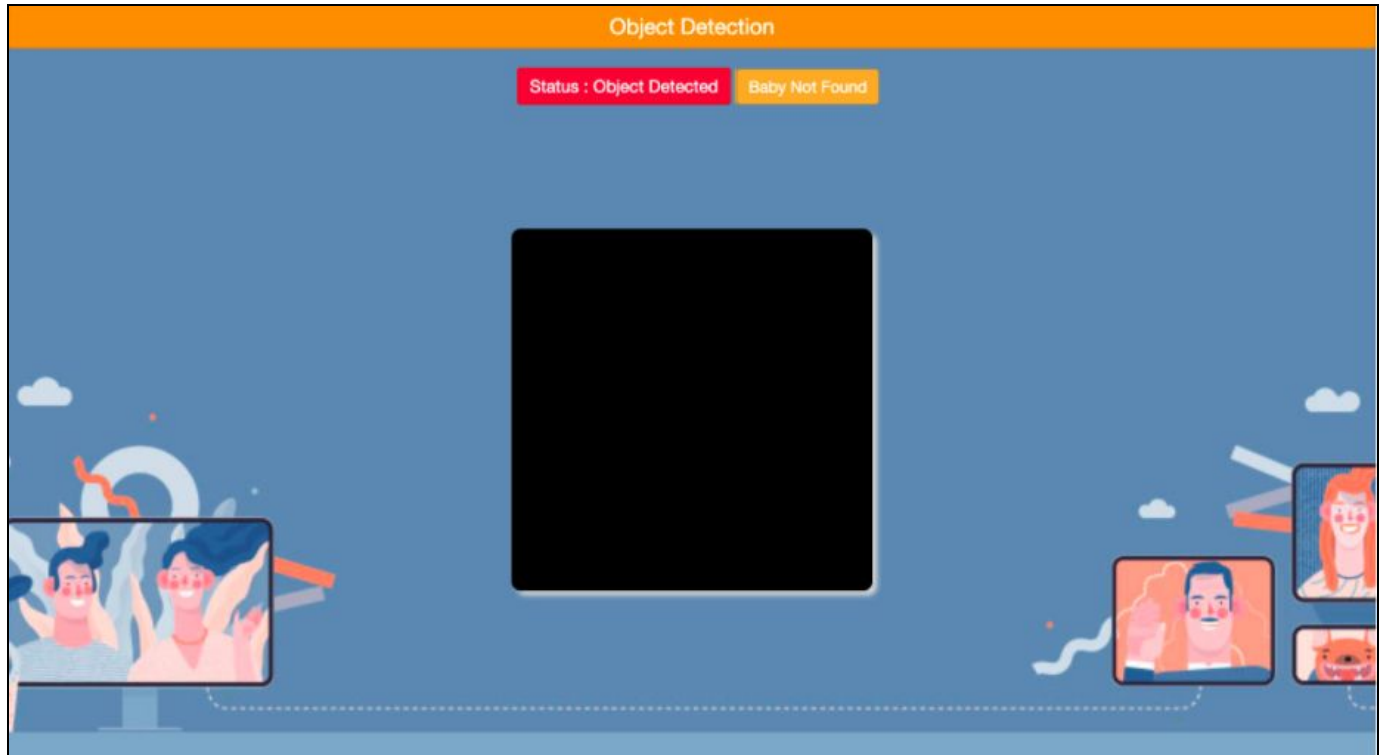
GeeLive is a security management company who has received many requests from people that they want to have a system which they can install in their baby room which will tell them whether their baby is still in the room and is safe. So they want an AI developer who can build this feature for them so that they can incorporate that in their webcam. In the last few projects you have already built a web application to detect objects on an image. So in this project you don't need to change the UI. Write code to access the webcam and check if the desired object (Baby) is present using the webcam.

**Output when there is no one in front of the webcam OR baby is not in front of the webcam, so the status will be:**

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## AI BABY MONITORING WEB APP

Alarm/Audio file will be played.

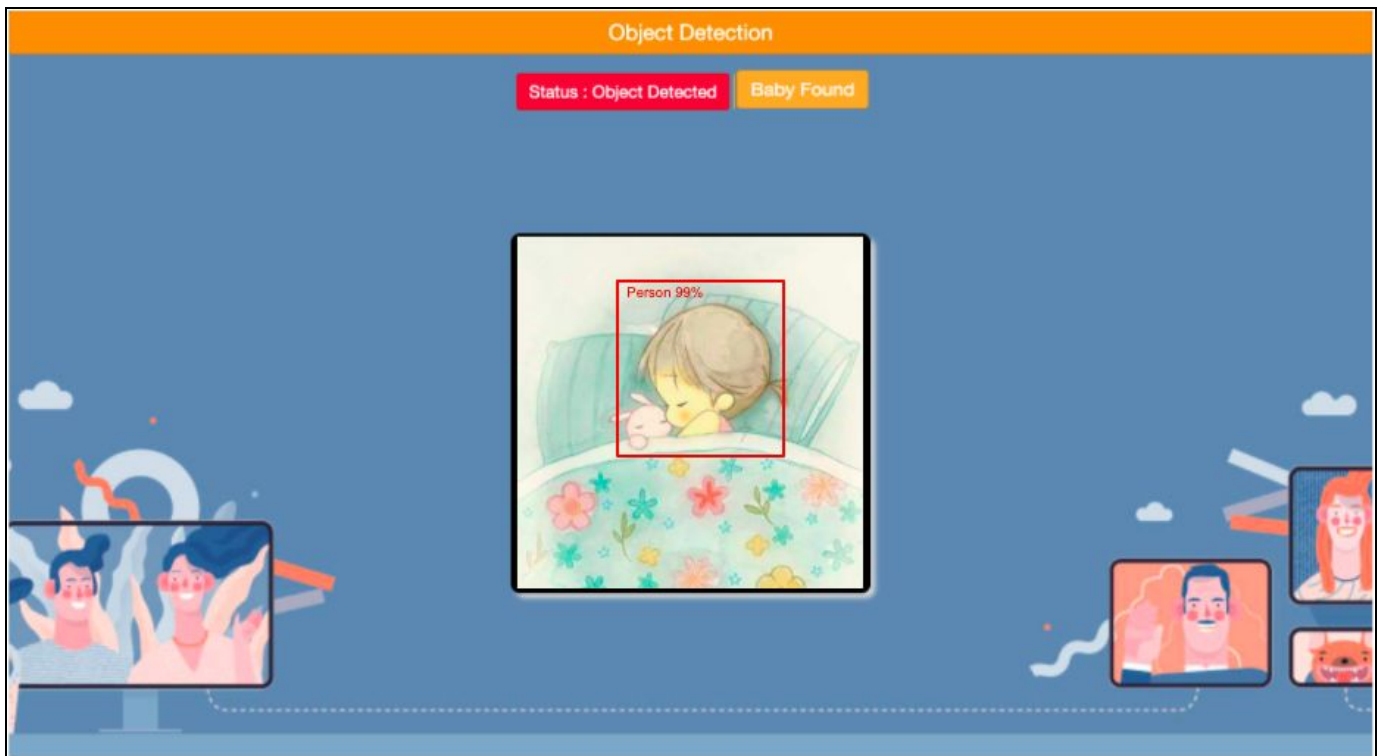


Output when the baby is in front of the webcam, so the status will be:



Baby Found

And Alarm/Audio file will be stopped.



**\*The above image is just for reference, we expect you to explore your creativity and make a beautiful web application.**

### Getting Started:

1. Copy HTML, CSS, and JS files of the current class, which is class no.134.
2. Create a folder **AI-BABY-MONITORING-WEB-APP** folder, and put all the copied HTML, CSS, and JS files in this folder.
3. Download an alert OR alarm audio file from google, and put it inside the **AI-BABY-MONITORING-WEB-APP** folder.

### Specific Tasks to complete the Project:

#### In HTML and CSS code:

1. Update the background image, maybe the background image can be related to object detection, or anything else.  
You can easily get a background image from google.
2. Update the text of the heading with some text which matches the project functionality.
3. Add a note how to use this web app, for eg:

If a person is not detected alarm will be played

4. Add a HTML element which will be used to hold the status - either baby is detected or not detected.

#### In JS code:

1. Write code for loading the alert sound file.

As we will be using a cocossd model, so a human is labeled in cococssd mode as “person”. Then let it be an old man, new born baby, a teenager, a young person, it will be called as “person” in cocossd model. So the “person” label can refer to a baby also. **The logic of the web app will be:**

1. If a person is detected(for this add a “if condition” to check the label which you are fetching from the objects array inside for-loop is equal to person) then:
  - Update the HTML element which is used to hold the status of either baby is detected or not detected with text “baby detected”.
  - And the alert sound will stop playing.
2. If a person is not detected(for this add a “else condition to the above if condition”) then:
  - Update the HTML element which is used to hold the status of either baby is detected or not detected with text “baby not detected”.
  - And the alert sound will start playing.

The above codes should come inside p5.js **draw()** function - inside the for-loop.

3. And If no object is detected(for this add a if condition to check if the objects array length is lesser than 0) then:
  - Update the HTML element which is used to hold the status of either baby is detected or not detected with text “baby not detected”.
  - And the alert sound will start playing.

The above code should come inside p5.js **draw()** function - after the for-loop. This code is written because if no object is detected for loop won't be executed and we have written code to check if baby is detected or not inside the for loop, and if no object is detected means baby is also not detected, and hence alert sound should be played.

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### AI BABY MONITORING WEB APP



**Make the webpage using your creativity, but make sure all the above components are there in the page.**

For testing, if you don't have a baby at home, no problem, you can use yourself for testing.

#### **Submitting the Project:**

1. Upload all the files which you have created in the **AI-BABY-MONITORING-WEB-APP** folder on GitHub.
2. You can get the steps to do this by clicking on this [link](#).
3. Copy the hosted link which you will get after uploading all your files on GitHub and submit it in the Student Dashboard Projects panel against the correct class number.

**\*DO NOT TRY TO HOST THIS ON DRIVE TO WEB BECAUSE WE WILL BE USING IMAGES IN THIS PROJECT AND DRIVE TO WEB WON'T SUPPORT\***

**Hints:**

1. You can also refer to this [website](#) for downloading audio files.
2. For the HTML element which is used to hold the status of baby detected or not, don't forget to give id, as this id will be used in JS for updating this HTML element.
3. The code for loading the alert sound file inside p5.js preload() function.
4. The code to fetch labels from the objects array in the loop will be - objects[i].label.
5. To play the audio file:
  - Use the variable which holds the audio file with a dot operator and play() function of p5.js.
6. To stop the audio file.
  - Use the variable which holds the audio file with a dot operator and play() function of p5.js.

**REMEMBER... Try your best, that's more important than being correct.**

After submitting your project your teacher will send you feedback on your work.

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