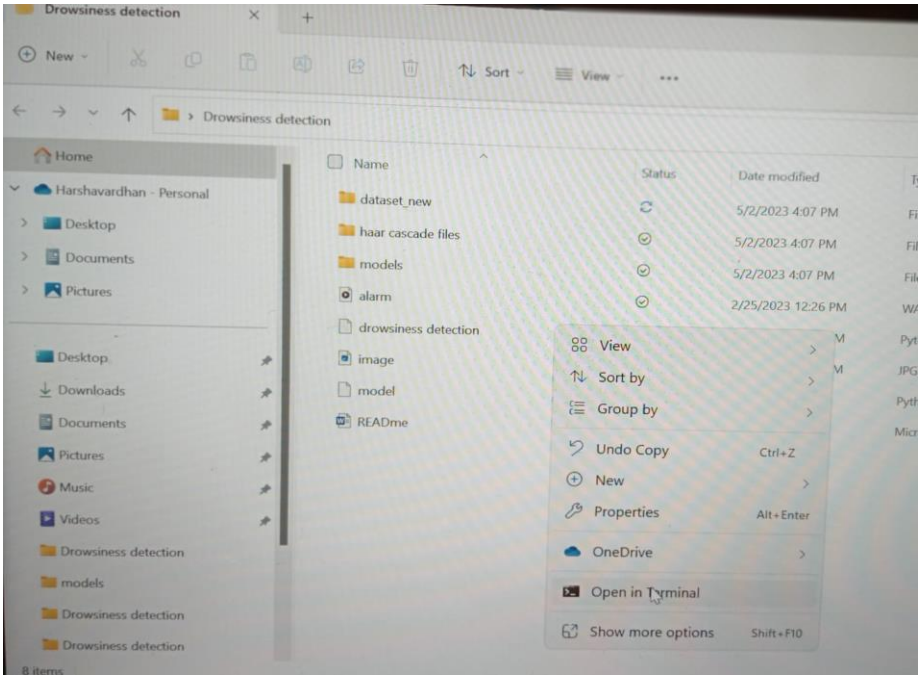
STEPS TO RUN THE PROJECT

- ✓ First, we need to download the folder I attached with this readme file and place it in a convenient location .The folder contains datasets, drowsiness detection.py which is our main file, model.py file and haarcascades xml files.
- ✓ To start the project, you need to open a command prompt, go to the directory where our main file "drowsiness detection.py", we downloaded exists. Run the script with this below command.
- ✓ **python "drowsiness detection.py"**

- ✓ **For suppose you downloaded the entire folder and placed it in a location C:\Users\reddy\Downloads\Drowsiness detection\Drowsiness detection then the command you need to enter in the terminal would be C:\Users\reddy\Downloads\Drowsiness detection\Drowsiness detection**
- ✓ **PS C:\Users\reddy\Downloads\Drowsiness detection\Drowsiness detection> python "drowsiness detection.py"**

OR

- ✓ Also we can just right click on the drowsiness detection.py file which is in the folder we downloaded and chose the option called open in terminal and just copy the above command i.e. **python "drowsiness detection.py" .Then click enter .**The code starts executed and the web cam gets opened and starts to capture our frames and starts to detect drowsiness if our eyes are closed. **The below screenshot gives an idea how to open in terminal and run the command. Just right click on drowsiness detection.py file and click on open in terminal and run the python "drowsiness detection.py" command.**



What does the folder contain?

- ✓ It contains dataset new folder which contains both test and train datasets. The test and train datasets contain both open eyes and closed eyes
- ✓ "Model.py" file contains the program through which we built our classification model by training on our dataset. You could see the implementation of convolutional neural network in this file.
- ✓ **"Drowsiness detection.py" is the main file of our project. To start the detection procedure, we have to run this file.**

- ✓ The "haar cascade files" folder consists of the xml files that are needed to detect objects from the image. In our case, we are detecting the face and eyes of the person.
- ✓ The model's folder contains our model file "cnnCat2.h5" which was trained on convolutional neural networks.
- ✓ We have an audio clip "alarm.wav" which is played when the person is feeling drowsy.

- ✓ It also contains a image which is a screenshot of the output