PROJECT OBJECTIVES

TEAM ID	**PNT2022TMID20743**
PROJECT NAME	VirtualEye - LifeGuard for Swimming Pools to Detect Active Drowning

Maximum age range for drowning in swimming pools is 1 to 15 years old. Drowning occurs as a result of improper swimming instruction and a lack of safety precautions. Virtual eye can be used to identify the drowning victim. The YOLO-based Convolutional Neural Network family of models for object detection will be used to implement the virtual eye, and the new variant of this type is known as YOLOv3.

Using object detection, we must find the object's activities. The process of computer virus ion known as "object detection" entails both locating one or more items within an image and classifying each thing within. A challenging computer vision task is to recognise each object in an image and draw a bounding box around it. Accurate object classification is necessary to determine the correct class of the localised object. The technique divides the input into a grid of cells and predicts a bounding box and an item categorization for each cell separately using a single dee p convolutional neural network (originally a GoogleNet variant, then upgraded and dubbed DarkNet based on VGG).

We need to detect the activities of the object using object detection. Object detection is the process of computer virus ion task that involves both localizing one or more objects within an image and classifying each object in the image. Identifying each object in an image and drawing a bounding box around it is a difficult computer vision task that also calls for accurate object classification to identify the right class of the localised object. The method uses a single dee p convolutional neural network (initially a GoogleNet variant, then upgraded and dubbed DarkNet based on VGG) that divides the input into a grid of cells and predicts a bounding box and an item categorization for each cell individually. There are many potential bounding boxes as a result, and these are later combined into a single final forecast during post-processing. The active drowning can be found in the following data files. Alarm helps to warn the area once it is detected.