

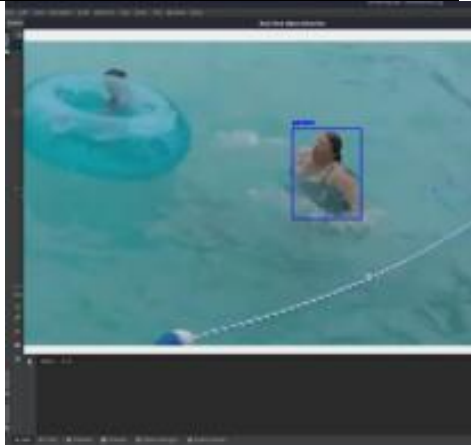

Project Development Phase
Model Performance Test

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| Date | 16 November 2022 |
| Team ID | PNT2022TMID43216 |
| Project Name | virtual eye - life guard for swimming pool to detect active drowning |
| Maximum Marks | 10 Marks |

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

| S.No. | Parameter | Values | Screenshot |
|-------|---------------|---|------------|
| 1. | Model Summary | Safety is paramount in all swimming pools. The current systems expected to address the problem of ensuring safety at swimming pools have significant problems due to their technical aspects, such as underwater cameras and methodological aspects such as the need for human intervention in the rescue mission. The use of an automated visual-based monitoring system can help to reduce drownings and assure pool safety effectively. This study introduces a revolutionary technology that identifies drowning victims in a minimum amount of time and dispatches an automated drone to save them. Using convolutional neural network (CNN) models, it can detect a drowning person in three stages. Whenever such a situation like this is detected, the inflatable tube-mounted selfdriven drone will go on a rescue mission, sounding an alarm to inform the nearby lifeguards. The system also keeps an eye out for potentially | |

| | | | |
|----|---------------------------------------|---|--|
| | | dangerous actions that could result in drowning. This system's ability to save a drowning victim in under a minute has been demonstrated in prototype experiments' performance evaluations. | |
| 2. | Accuracy | <p>Training Accuracy – 85 %</p> <p>Validation Accuracy – >90 %</p> |  |
| 3. | Confidence Score (Only Yolo Projects) | <p>Class Detected – up to 85 %</p> <p>Confidence Score – 95 %</p> |  |