# **Ideation Phase**

**Define the Problem Statements**

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| **Date** | **17.05.2023** |
| **Team ID** | NM2023TMID16548 |
| **Project Name** | **Drowsiness Detection And Alerting System** |

# **Customer Problem Statement & Templates:**

# In current years, drowsy driver detection is the most necessary procedure to prevent any road accidents, probably worldwide. The aim of this study was to construct a smart alert technique for building intelligent vehicles that can automatically avoid drowsy driver impairment. But drowsiness is a natural phenomenon in the human body that happens due to different factors. Hence, it is required to design a robust alert system to avoid the cause of the mishap. In this proposed paper, we address a drowsy driver alert system that has been developed using such a technique in which the Video Stream Processing (VSP) is analyzed by eye blink concept through an Eye Aspect Ratio (EAR) and Euclidean distance of the eye. Face landmark algorithm is also used as a proper way to eye detection. When the driver’s fatigue is detected, the IoT module issues a warning message along with impact of collision and location information, thereby alerting with the help of a voice speaking through the Raspberry Pi monitoring system.

# **Problem statement 1:**

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| I am customer  Driver | I’m trying to  Drive the Vehicle Without Accidents | But  Accidents occur due to Distractions | Because  Of Drowsiness and Fatigue |

Which makes me feel

Afraid