# Project Initialization and Planning Phase

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| Date | 10 July 2024 |
| Team ID | 739763 |
| Project Name | Air Quality Index Analyzer |
| Maximum Marks | 3 Marks |

## Define Problem Statement:

The air quality index (AQI) is an index for reporting air quality on a daily basis. It is a measure of how air pollution affects one's health within a short time period. The purpose of the AQI is to help people know how the local air quality impacts their health.

The higher the AQI value, the greater the level of air pollution and the greater the health concerns. The concept of AQI has been widely used in many developed countries over the last three decades. AQI quickly disseminates air quality information in real time. Awareness of daily levels of air pollution is important, especially for those suffering from illnesses caused by exposure to air pollution.

The main purpose of this project is to predict the AQI based on several inputs. We will be using various regression algorithms such as Decision tree, extra trees, random forest, and XG Boost. We will train and test the data with these algorithms. From this, the best model is selected and saved in pkl format. We will also be deploying our model locally using Flask

| I am | I'm trying to | But | Because | Which makes me feel |
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| A city resident | Monitor the air quality in my area | There is no local AQI monitoring station | I care about my health and the environment | Worried about potential exposure pollution |

| Problem Statement(PS) | I am | I'm trying to | But | Because | Which makes me feel |
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| PS-1 | A city resident | Monitor the air quality in my area | There is no local AQI monitoring station | I care about my health and the environment | Worried about potential exposure pollution |