



## **Model Development Phase**

| Date          | 10 June 2024                        |
|---------------|-------------------------------------|
| Team ID       | 739763                              |
| Project Title | Air Quality Index Analyzer using ML |
| Maximum Marks | 5 Marks                             |

## **Feature Selection Report Template**

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

| Feature | Description                                          | Selected (Yes/No) | Reasoning                                |
|---------|------------------------------------------------------|-------------------|------------------------------------------|
| PM2.5   | Particulate<br>matter with a<br>diameter < 2.5<br>µm | Yes               | Critical indicator of air quality.       |
| PM10    | Particulate<br>matter with a<br>diameter < 10        | Yes               | Influences respiratory health.           |
| NO2     | Nitrogen dioxide concentration                       | Yes               | Common pollutant from vehicle emissions. |

| SO2 | Sulfur dioxide |     | Results from industrial processes. |
|-----|----------------|-----|------------------------------------|
|     | concentration  | Yes |                                    |
|     |                |     |                                    |
|     |                |     |                                    |





| СО      | Carbon monoxide concentration | Yes | Harmful to human health.                 |
|---------|-------------------------------|-----|------------------------------------------|
| NO      | Nitric oxide                  | Yes | Affects pollutant levels and dispersion. |
| Toluene | Geographic                    | Yes | Specific to regions pollution levels.    |