**IBM- Naan mudhalvan Data Analytics with Congnos**

**Student Name.**  : HARISH A

**Register Number**. : 620821104043

**Branch**. : B.E CSE

**Year**. : 3rd year

**Topic**. : Data Analytics with Cognous

**Title**. : Air quality analysis in Tamilnadu

**College**. : Gnanamani College of Technology

**Air quality analysis in Tamilnadu**

**Abstract:**

Air pollution is a pressing concern in Tamil Nadu, a state in southern India, due to rapid urbanization, industrial growth, and their associated environmental impacts. This abstract outlines a comprehensive project proposal aimed at assessing and improving air quality in Tamil Nadu. The project seeks to establish an extensive air quality monitoring network, analyze data to identify pollution sources, raise public awareness, and advocate for evidence-based policies to mitigate air pollution.

**Understanding the problem:**

Air quality analysis is a crucial field that involves assessing the composition of the air we breathe to determine its safety and potential health risks. Understanding the problems and challenges in air quality analysis is essential for improving air quality management and safeguarding public health.

**Design and thinking:**

Design thinking is a creative problem-solving approach that can be applied to the field of air quality analysis to develop innovative and effective solutions.

**Project Definition:**

**Project Objectives:**

To assess and monitor air quality in [specific geographic area] to ensure public health and environmental safety.

To identify and quantify major air pollutants, including [list of pollutants], and their sources.

To develop actionable recommendations for air quality improvement based on data analysis and findings.

**2. Project Scope:**

Geographic Area: [Specify the geographic area or region covered by the project, e.g., a city, state, or industrial zone.]

Timeframe: [Specify the project’s start and end dates or duration.]

Data Sources: [List the sources of air quality data, such as monitoring stations, satellite data, or sensor networks.]

Key Parameters: [Specify the specific air quality parameters to be analyzed, e.g., PM2.5, PM10, NO2, SO2, O3, VOCs, etc.]

Stakeholders: [Identify the key stakeholders involved in or affected by the project, including government agencies, environmental organizations, researchers, and the public.]

**3. Project Goals:**

Improve public health by providing accurate and timely information on air quality.

Enhance environmental protection by identifying pollution sources and recommending mitigation strategies.

Ensure compliance with air quality standards and regulations.

Raise public awareness and promote informed decision-making regarding air quality.

4. Project Components:

a. Data Collection and Monitoring:

- Set up or utilize existing air quality monitoring stations and data sources.

- Ensure data accuracy, reliability, and real-time or near-real-time availability

**Project Deliverables**:

Regular air quality reports and updates for the geographic area.

Health impact assessments and risk communication materials.

Recommendations for air quality improvement.

Educational resources for the community.