Air quality monitoring

Definition:

Air quality monitoring In this phase you will continue building your project. Please refer below the requirements technology wise:AIIn this technology you will continue building your project by selecting a machine learning algorithm, training the model, and evaluating its performance. Perform different analysis as needed. After performing the relevant activities create a document around it and share the same for assessment.ADS:In this technology you will continue building your project by performing feature engineering, model training and evaluation. Perform different analysis as needed. After performing the relevant activities create a document around it and share the same for assessment.DAC:In this technology projects you will continue building your project by performing different analysis, model building and evaluation as per the project requirement. Perform different analysis and visualization using IBM Cognos. After performing the relevant activities create a document around it and share the same for assessment.IOT:In this technology project you will continue building your project by developing the platform as per project requirement. Use web development technologies wherever needed. After performing the relevant activities create a document around it and share the same for assessment.CAD:In this technology projects you will continue building your project using IBM Cloud Foundry. Perform different functions as per project requirement. After performing the relevant activities create a document around it and share the same for assessment.NOTE:File Naming Convention: TechnologyName_Phase4After completion upload your file to your same private GitHub account that has been created earlier. Please give access to your college evaluators email ids. Also please give access to faculty evaluator[facultyevaluator@gmail.com] and industry evaluator [IndustryEvaluator@skillup.online] to your private GitHub repository for evaluation process.

It seems like you have a project with multiple technology components, each requiring specific actions and documentation. To proceed, you'll need to work on the following for each technology:

Devlopment:

It's great to hear that you're working on an air quality monitoring project. If you have any specific questions or need guidance on any aspect of your project, feel free to ask, and I'll do my best to assist you.

AI:

1. Select a machine learning algorithm.
2. Train the model.
3. Evaluate its performance.

4. Perform necessary analyses.
5. Create a document summarizing these activities.

ADS:

1. Perform feature engineering.
2. Train a model.
3. Evaluate the model's performance.
4. Conduct required analyses.
5. Create a documentation report.

DAC:

1. Perform different analyses and model building.
2. Use IBM Cognos for visualization.
3. Create a document summarizing your activities.

IOT:

1. Continue developing the platform according to project requirements.
2. Utilize web development technologies as needed.
3. Document your activities for assessment.

CAD:

1. Continue building your project using IBM Cloud Foundry.
2. Perform various functions as required.
3. Create a document summarizing your actions.

After completing these tasks for each technology, you should follow the specified file naming convention: "TechnologyName_Phase4" and upload the files to your private GitHub repository. Make sure to grant access to your college evaluators, faculty evaluator, and industry evaluation process.

Technology Project Phases Summary

Air quality monitoring In this phase you will continue building your project. Please refer below the requirements technology wise:AIIn this technology you will continue building your project by selecting a machine learning algorithm, training the model, and evaluating its performance. Perform different analysis as needed. After performing the relevant activities create a document around it and share the same for assessment.ADS:In this technology you will continue building your project by performing feature engineering, model training and evaluation. Perform different analysis as needed. After performing the relevant activities create a document around it and share the same for assessment.DAC:In this technology projects you will continue building your project by performing different analysis, model building and evaluation as per the project requirement. Perform different analysis and visualization using IBM Cognos. After performing the relevant activities create a document around it and share the same for assessment.IOT:In this technology project you will continue building your project by developing the platform as per project requirement. Use web development technologies wherever needed. After performing the relevant activities create a document around it and share the same for assessment.CAD:In this technology projects you will continue building your project using IBM Cloud Foundry. Perform different functions as per project requirement. After performing the relevant activities create a document around it and share the same for assessment.NOTE:File Naming Convention: TechnologyName_Phase4After completion upload your file to your same private GitHub account that has been created earlier. Please give access to your college evaluators email ids.

It seems like you have a project with multiple technology components, each requiring specific actions and documentation. To proceed, you'll need to work on the following for each technology:

AI:

1. Select a machine learning algorithm.
2. Train the model.
3. Evaluate its performance.
4. Perform necessary analyses.
5. Create a document summarizing these activities.

ADS:

1. Perform feature engineering.
2. Train a model.
3. Evaluate the model's performance.
4. Conduct required analyses.
5. Create a documentation report.

DAC:

1. Perform different analyses and model building.
2. Use IBM Cognos for visualization.
3. Create a document summarizing your activities.

IOT:

1. Continue developing the platform according to project requirements.
2. Utilize web development technologies as needed.
3. Document your activities for assessment.

CAD:

1. Continue building your project using IBM Cloud Foundry.
2. Perform various functions as required.
3. Create a document summarizing your actions.

After completing these tasks for each technology, you should follow the specified file naming convention: "TechnologyName_Phase4" and upload the files to your private GitHub repository. Make sure to grant access to your college evaluators, faculty evaluator, and industry evaluator for the evaluation process.

Devloped air quality monitoring

It's great to hear that you're working on an air quality monitoring project. If you have any specific questions or need guidance on any aspect of your project, feel free to ask, and I'll do my best to assist you.

Air quality monitoring development python code:

Developing an air quality monitoring system in Python typically involves working with sensors, data collection, analysis, and visualization. Here's a basic outline of how you can start:

1. Data Collection:
   - Obtain air quality data from sensors or online sources. Common parameters include PM2.5, PM10, CO2, CO, temperature, humidity, etc.
   - You can use libraries like `requests` to fetch data from online sources or directly interface with sensors if you have hardware.
2. Data Processing:
   - Clean and preprocess the data, handling missing values and outliers.
   - Convert the data into a suitable format for analysis.
3. Data Analysis:
   - Calculate descriptive statistics, trends, or patterns in the air quality data.
   - You can use Python libraries like NumPy and Pandas for data manipulation and analysis.
4. Visualization:
   - Create visualizations to represent the air quality data. You can use libraries like Matplotlib or Seaborn for plotting graphs.
5. Alerts (Optional):
   - Implement alerts or notifications if certain air quality thresholds are exceeded.
6. Machine Learning (Optional):
   - If you want to predict air quality or perform advanced analysis, you can apply machine learning algorithms. Libraries like scikit-learn can be helpful.

7. Web Application (Optional):
   ○ Develop a web-based dashboard to display air quality information using frameworks like Flask or Django.
8. Continuous Data Collection:
   ○ Set up a mechanism for continuous data collection, such as scheduled data fetching from sensors or online APIs.

Here's a simple example of Python code to fetch air quality data from an API using the `requests` library:

```python
python code:
import requests


# Replace with the URL of the air quality API
api_url = "https://your-air-quality-api.com/data"


response = requests.get(api_url)
data = response.json()


# Now, 'data' contains the air quality information that you can process and analyze.
```

Remember that the specific code will depend on the sensors or data sources you are using. Additionally, you may need to sign up for access to air quality data sources, and the API endpoint and data format may vary.

If you have more specific questions or need help with a particular aspect of your project, please let me know.