

## EcoTech

### **Problem Statement:**

Your task is to create an AI-driven system that tackles the core facets of environmental conservation. The system is designed with the advanced capability to continuously monitor and comprehensively analyze a wide range of environmental data, and propagate sustainable behaviors. You're encouraged to craft a new application or enhance existing platforms, aiming to achieve at least one of the following objectives:

### **Environmental Data Insights:**

Develop an AI ecosystem that captures, processes, and analyzes diverse environmental data – encompassing air quality, water pollution, deforestation rates, and climate patterns. The system should furnish real-time insights and visualizations for a comprehensive grasp of the environment's present state.

### **Sustainable Practices:**

Make AI tools that encourage people, groups, and businesses to do things that are good for the environment. These tools could give personalized ideas, helpful lessons, and fun challenges to make it more interesting and easy to be eco-friendly. Let's team up to help our planet by making smart, Earth-friendly choices!

By confronting these challenges head-on, your AI system will be at the forefront of environmental preservation, and the propagation of sustainable practices. Join us in this hackathon to pave the way for a more sustainable and resilient future, where AI becomes a driving force for global good.

### **Submission:**

1. **Project Title** : Title to your project
2. **Project Description** : Give Brief description about your project, not more than 500 words.
3. **Theme** : Select **EcoTech** as your Theme
4. **Github Repository** : Github Repository must consist of

#### **a. Readme File:**

- The repository must include a well-structured and informative readme file.
- The readme should provide an overview of the project, its purpose, features, and functionalities.
- Include clear installation instructions, prerequisites, and usage guidelines.
- Mention any external dependencies or libraries required to run the code.

#### **b. Code Files:**

- The repository should contain all the relevant code files related to the project.

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- Ensure that essential code files are included, such as .ipynb files, .py files, or any other code documents.
- Organize the code files logically within the repository's directory structure.

### 5. **Demo Video Link** : In demo Video you need to include

- Introduction of Topic Selected
- Project Overview :
  - Introduction: Briefly introduce yourself or the team and your project.
  - Explain why and how you have come up with this project and what problem you are trying to address.
  - Explain the use of Data Science/Machine Learning or related technology you have used
  - Describe the benefits and advantages of this project
  - Show a brief demonstration of your project in the form of design/proof of communication or wireframe or just a simple Powerpoint presentation if the project is in progress
- Platform Walkthrough
- Process include in modeling
- Use Cases
- User Interaction
- Conclusion

### 6. **WebApp URL**: Here are some key points to consider before submitting the WebApp URL

- Functionality Check
- User Experience (UX)
- Responsive Design

### 7. **GFG Article Link** -

- **Visit the GeeksforGeeks Website:**  
Go to the official GeeksforGeeks website at <https://write.geeksforgeeks.org/posts-new>
- **Create/Login to Your Account:**  
If you don't have a GeeksforGeeks account, you'll need to create one. If you already have an account, log in.
- **Write Your Article:**  
Follow the prompts to write and format your article using the provided editor. GeeksforGeeks has a specific format for writing articles, including using markdown syntax for headings, code snippets, and other elements. Make sure to adhere to their guidelines.
- **Add Images and Code:**  
If your article includes images, diagrams, or code snippets, you can add them using the provided tools in the editor. Make sure your content is clear and well-illustrated.

- **Preview Your Article:**

Many platforms, including GeeksforGeeks, allow you to preview your article before submitting it. This gives you a chance to see how it will appear to readers.

- **Select Category and Sub-Category:**

Choose the category as **GFG Geek-A-Thon**

- **Submit the article link:**

Once you're satisfied with your article, copy the link address for your respective article and paste it to the article url link.

### References and appendices

Any supporting references, mocks, diagrams or demos that help portray your solution.

Any public datasets you use to predict or solve your problem.

Data Set Used(Given Data Sets are only for reference you may take any dataset of your choice):

- <https://www.kaggle.com/datasets/fedesoriano/air-quality-data-in-india>
- <https://www.kaggle.com/datasets/prosperchuks/amazonsatelliteimages>