

# Team Members & Roles

Yuva Krishna K -Team leader

Vishnupriya R-Team member

Yogabharathi S-Team member

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# Problem Statement

The traditional methods of monitoring coral reef health are often time-consuming, labor-intensive. This can lead to delayed detection of threats, hindering effective conservation efforts. To address these challenges, there is a pressing need for a reliable, efficient, and objective approach to monitor coral reef health.

# Problem Statement

## Challenges:

Coral reefs are incredibly diverse and can be affected by many factors, making it difficult to create a model that works for all situations.

Collecting enough high-quality images of coral reefs can be challenging.

# Revolutionizing coral reef monitoring through AI.

Team ECOPULSE's  
:Reef Guard



# Solution

To create a tool that can quickly and accurately assess the health of coral reefs simply by looking at pictures.

Empower scientists and conservationists to make informed decisions about protecting these vital ecosystems.

Advance our understanding of coral reef health and the threats they face.

```
if pred_value > 0.5:  
    print("Healthy coral reef")  
else:  
    print("Bleached coral reef")
```

```
3/3 [=====] - 0s 126ms/step  
Bleached coral reef
```

# Wow factors

**Providing real-time insights:** Our AI-powered system can quickly assess the health of coral reefs from images, enabling timely intervention.

**Empowering communities:** We've created a user-friendly platform that empowers local communities to actively participate in reef conservation efforts.

**Advancing scientific understanding:** Our research has uncovered valuable insights into the factors affecting coral reef health, paving the way for more effective conservation strategies.

# Let's Jump into the Demo!

(exit presentation & showcase your project)

# Learnings during the Datathon

I gained a deep understanding of deep learning techniques, particularly convolutional neural networks (CNNs), and their application to image classification tasks."

I acquired knowledge about coral reef biology, ecology, and the factors that affect their health.



Capture fun moments during the Datathon (optional)