**DISASTER RECOVERY WITH IBM CLOUD VIRTUAL SERVERS**

DIASATER: The cyclone prediction

INTRODUCTION

Cyclones, also known as hurricanes or typhoons in different regions, can cause catastrophic damage, leading to data loss and operational disruptions for organizations. Implementing a robust disaster recovery plan is crucial to ensure business continuity and data resilience in the face of such natural disasters. In this project, we will explore how to leverage IBM Cloud Servers to establish a disaster recovery strategy specifically tailored for cyclone-prone regions.

REQUIREMENTS

* **Data Sources**
* **Advanced Algorithms**
* **High-Performance Computing**
* **Remote Sensing Technologies**
* **Geographic Information System (GIS**

**DATA SOURCES**

* **Meteorological Data:** Collect real-time meteorological data, including wind speed, temperature, humidity, atmospheric pressure, and precipitation from various sources, such as weather stations, satellites, and radars.
* **Oceanographic Data:** Incorporate ocean-related data, like sea surface temperature, ocean currents, and sea level, to monitor conditions in the cyclone's path.
* **Historical Data:** Access historical cyclone data to analyze patterns, track records, and past behaviors to enhance predictive accuracy.

**ADVANCED ALGORITHM**

* Utilize advanced mathematical and statistical models to analyze and process the collected data.
* Implement numerical weather prediction models (e.g., WRF, GFS, ECMWF) to simulate cyclone behavior.
* Develop machine learning and artificial intelligence models for data-driven predictions and pattern recognition.

**HIGH –PERFORMANCE COMPUTING**

* Cyclone prediction involves complex simulations and data processing, requiring access to high-performance computing resources to run models efficiently.

**REMOTE SENSING TECHNOLOGIES**

* Employ remote sensing technologies such as satellite imagery, Doppler radar, and weather balloons to monitor and track cyclone development and movement.

**GEOGRAPHIC INFORMATION SYSTEM(GIS)**

* Incorporate GIS for mapping and spatial analysis, allowing for accurate visualization of cyclone paths and affected areas.

**CONCLUSION:**

The Cyclone Prediction Project represents a significant step forward in our ongoing efforts to enhance our understanding of cyclones and improve early warning and response systems in cyclone-prone regions.

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