Disaster Recovery with IBM Cloud Virtual Servers

Abstract

This document provides a comprehensive overview of a disaster recovery plan for a website using IBM Cloud Virtual Servers. The document covers the following topics:

Objective:The objective of this project is to develop and implement a disaster recovery plan to minimize downtime and ensure business continuity in the event of a disaster.
Design thinking process: The design thinking process was used to develop the disaster recovery plan. This process involved understanding the needs of the business, identifying and evaluating potential solutions, and prototyping and testing the plan.
Development phases:The development of the disaster recovery plan involved the following phases:
Planning:The planning phase involved identifying the risks to the website, developing recovery time objectives (RTOs) and recovery point objectives (RPOs), and selecting a disaster recovery solution.
Implementation: The implementation phase involved configuring backups, replicating the website to a disaster recovery site, and testing the recovery process.
Maintenance: The maintenance phase involves regularly reviewing and updating the disaster recovery plan to ensure that it is aligned with the needs of the business.

Disaster recovery strategy

The disaster recovery strategy for this project is based on the following principles:

Prevention: The best way to recover from a disaster is to prevent it from happening in the first place. This can be done by implementing security measures to protect the website from cyberattacks and by regularly backing up the website data.
Detection:Early detection of a disaster is essential for minimizing downtime. This can be done by monitoring the website and its infrastructure for potential problems.
Response: Once a disaster has been detected, it is important to respond quickly and effectively. This involves following the disaster recovery plan to restore the website to operation as quickly as possible.

Backup configuration

The website data will be backed up to a cloud storage service on a daily basis. The backup will be stored in a different region than the website to ensure that it is not affected by the same disaster.

Replication setup

The website will be replicated to a disaster recovery site using a managed replication service. This service will keep the replica in sync with the production website in real time.

Recovery testing procedures

The disaster recovery plan will be tested on a regular basis to ensure that it is effective. The testing will involve simulating a disaster and then following the disaster recovery plan to restore the website to operation.

How the disaster recovery plan guarantees business continuity in unforeseen events

The disaster recovery plan guarantees business continuity in unforeseen events by:

Preventing data loss: The regular backups of the website data ensure that the data is not lost in the event of a disaster.
Minimizing downtime: The disaster recovery plan outlines the steps that need to be taken to restore the website to operation as quickly as possible. This minimizes the downtime that the business experiences.
Maintaining access to the website: The disaster recovery plan ensures that the website is accessible to users even in the event of a disaster. This is achieved by replicating the website to a disaster recovery site.

GitHub repository link

The GitHub repository link containing the project's code and files will be provided upon completion of the project.

Instructions on how to set up and deploy the disaster recovery plan using IBM Cloud Virtual Servers

The following steps outline how to set up and deploy the disaster recovery plan using IBM Cloud Virtual Servers:

1. Create two IBM Cloud Virtual Servers, one for the production website and one for the disaster recovery site.
2. Install the necessary software on both servers, such as a web server, database server, and application server.
3. Configure the disaster recovery server to replicate the production server.
4. Test the disaster recovery plan by simulating a disaster and then restoring the website to operation.

README file

The README file will explain how to navigate the website, update content, and any dependencies. The file will also include information on how to set up and deploy the disaster recovery plan.

Conclusion

This document has provided a comprehensive overview of a disaster recovery plan for a website using IBM Cloud Virtual Servers. The disaster recovery plan will minimize downtime and ensure business continuity in the event of a disaster.