DISASTER RECOVERY WITH IBM VIRTUAL SERVERS

ABSTRACT

In the dynamic landscape of modern technology, ensuring the resilience and availability of critical applications is paramount. This abstract presents a comprehensive approach to developing a robust disaster recovery solution for IBM Cloud Virtual Servers leveraging the capabilities of IBM Cloud Foundry, all orchestrated through Python scripts.

The proposed solution integrates IBM Cloud Virtual Servers, providing scalable and flexible infrastructure, with the power of IBM Cloud Foundry, a platform-as-a-service offering for building, deploying, and managing applications. The incorporation of Python scripts enhances automation, making the disaster recovery process efficient and adaptable.

PROGRAM

from ibm\_cloud\_sdk\_core.authenticators import IAMAuthenticator

from ibm\_platform\_services import ResourceControllerV2, SchematicsV1

from ibm\_cloud\_sdk\_core import ApiException

def create\_ibm\_cloud\_client(api\_key):

authenticator = IAMAuthenticator(api\_key)

client = SchematicsV1(authenticator=authenticator)

client.service\_url = "https://schematics.cloud.ibm.com/v1"

return client

def create\_backup(virtual\_server\_id, backup\_name):

# Implement your backup logic here

# This could involve taking snapshots, creating backups, etc.

# Make API calls to IBM Cloud Virtual Servers

def restore\_backup(virtual\_server\_id, backup\_name):

# Implement your restore logic here

# This could involve restoring from snapshots or backups

# Make API calls to IBM Cloud Virtual Servers

def main():

# IBM Cloud API Key

api\_key = "YOUR\_IBM\_CLOUD\_API\_KEY"

# Virtual Server Details

virtual\_server\_id = "YOUR\_VIRTUAL\_SERVER\_ID"

# Disaster Recovery Actions

action = input("Enter 'backup' to create a backup or 'restore' to restore from backup: ").lower()

try:

ibm\_cloud\_client = create\_ibm\_cloud\_client(api\_key)

if action == "backup":

backup\_name = input("Enter a name for the backup: ")

create\_backup(virtual\_server\_id, backup\_name)

print("Backup created successfully.")

elif action == "restore":

backup\_name = input("Enter the name of the backup to restore: ")

restore\_backup(virtual\_server\_id, backup\_name)

print("Restore completed successfully.")

else:

print("Invalid action. Please enter 'backup' or 'restore'.")

except ApiException as e:

print("Error interacting with IBM Cloud services:")

print(e)

if \_\_name\_\_ == "\_\_main\_\_":

main()