# Special Issue 1: What happens when an instance stops running

# **Problem Statement**

When an EC2 instance is stopped or terminated, data can be lost. We need to preserve the instance state for recovery and duplication. The solution to this problem is an AMI, or Amazon Machine image

An Amazon Machine Image is a complete snapshot of an EC2 instance that includes the operating system, installed software like Docker, images and containers, etc.

# 1. Create AMI Backup from EC2 Instance

Command: create-image

Purpose: Creates an Amazon Machine Image (AMI) backup of the running instance

## Parameters:

Instance ID: i-0a133f58f231434b5
AMI Name: my-website-ami-backup
Description: Working website backup

## **Full Command:**

aws ec2 create-image \

- --instance-id i-0a133f58f231434b5 \
- --name "my-website-ami-backup" \
- --description "Working website backup"

### Amazon Machine Image (AMI)



#### Description

Working website backup

Architecture AMI ID

x86\_64 ami-0fad90cf5b62b249c

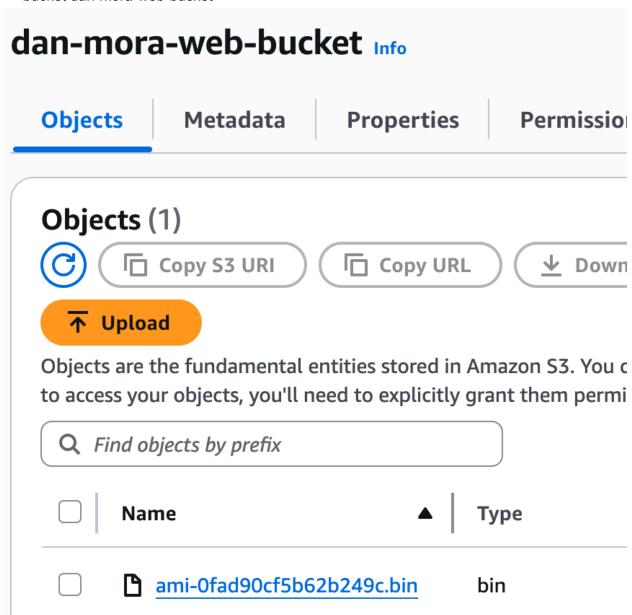
# 2. Send to S3 bucket

**Command:** create-store-image-task

## **Full Command:**

aws ec2 create-store-image-task \

- --image-id ami-0fad90cf5b62b249c \
- --bucket dan-mora-web-bucket



# 3. Launch New EC2 Instance from AMI

Command: run-instances

Purpose: Launches a new EC2 instance from the previously created AMI for testing restoration

# Parameters:

• AMIID: ami-0fad90cf5b62b249c

• Instance Type: t3.micro

Security Group ID: sg-092591f63db08d59d
Subnet ID: subnet-03eb8345acf95303e

• Instance Name Tag: test-restore

# **Full Command:**

aws ec2 run-instances \

- --image-id ami-0fad90cf5b62b249c \
- --instance-type t3.micro \
- --security-group-ids sg-092591f63db08d59d \
- --subnet-id subnet-03eb8345acf95303e \
- --tag-specifications 'ResourceType=instance,Tags=[{Key=Name,Value=test-restore}]'