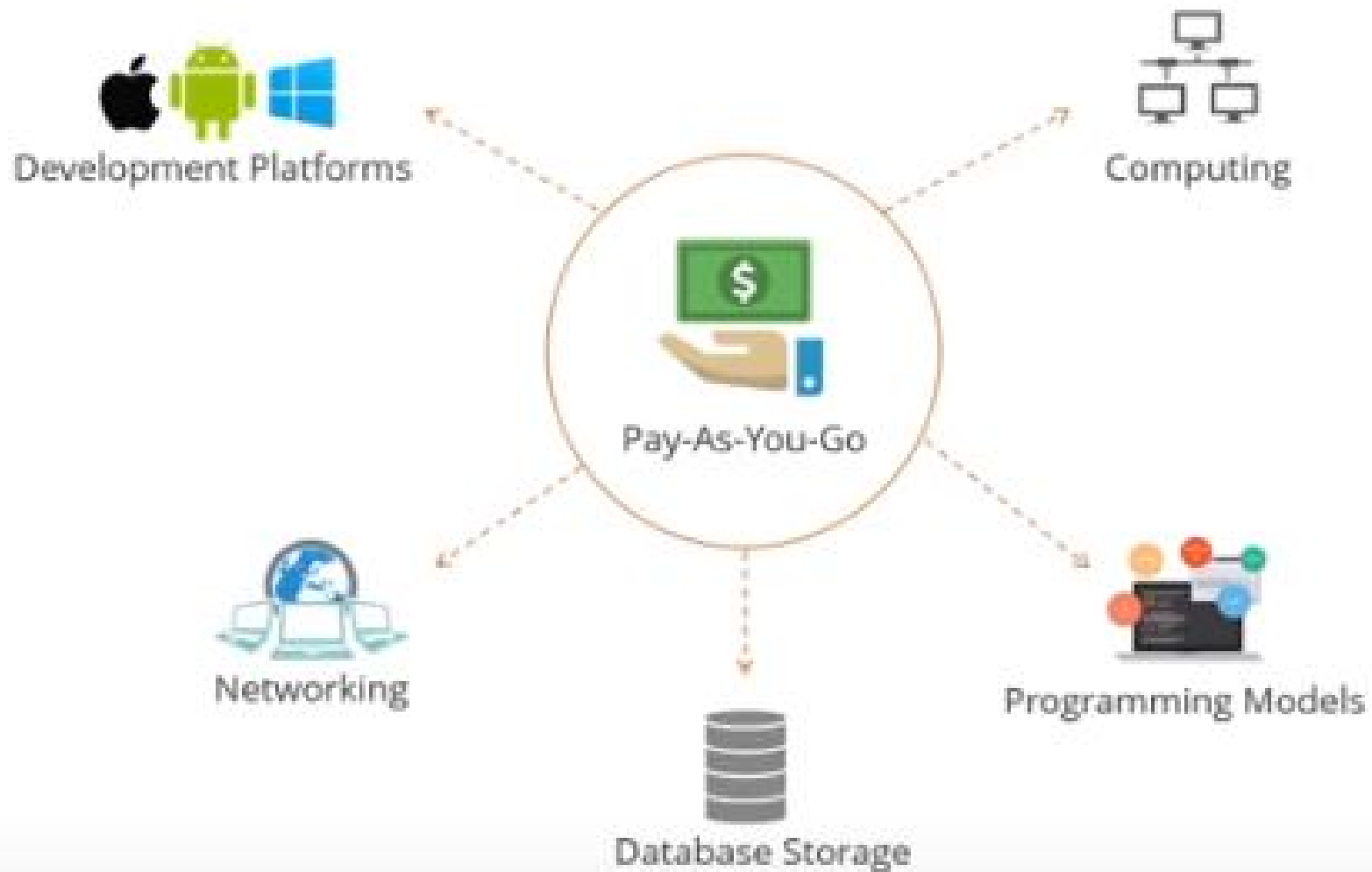# ISA 1- Summary

By Tamal Dey
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Dept. of MCA, PESU

Lab1-Setting Up Account

Amazon Web Services

Compute

EC2
Virtual Servers in the Cloud

Lambda PREVIEW
Run Code in Response to Events

Storage & Content Delivery

S3
Scalable Storage in the Cloud

Storage Gateway
Integrates On-Premises IT Environments with Cloud Storage

Glacier
Archive Storage in the Cloud

CloudFront
Global Content Delivery Network

Database

RDS
MySQL, Postgres, Oracle, SQL Server, and Amazon Aurora

DynamoDB
Predictable and Scalable NoSQL Data Store

ElastiCache
In-Memory Cache

Redshift
Managed Petabyte-Scale Data Warehouse Service

Networking

VPC
Isolated Cloud Resources

Direct Connect
Dedicated Network Connection to AWS

Route 53
Scalable DNS and Domain Name Registration

Administration & Security

Directory Service
Managed Directories in the Cloud

Identity & Access Management
Access Control and Key Management

Trusted Advisor
AWS Cloud Optimization Expert

CloudTrail
User Activity and Change Tracking

Config PREVIEW
Resource Configurations and Inventory

CloudWatch
Resource and Application Monitoring

Deployment & Management

Elastic Beanstalk
AWS Application Container

OpsWorks
DevOps Application Management Service

CloudFormation
Templated AWS Resource Creation

CodeDeploy
Automated Deployments

Analytics

EMR
Managed Hadoop Framework

Kinesis
Real-time Processing of Streaming Big Data

Data Pipeline
Orchestration for Data-Driven Workflows

Application Services

SQS
Message Queue Service

SWF
Workflow Service for Coordinating Application Components

AppStream
Low Latency Application Streaming

Elastic Transcoder
Easy-to-use Scalable Media Transcoding

SES
Email Sending Service

CloudSearch
Managed Search Service

Mobile Services

Cognito
User Identity and App Data Synchronization

Mobile Analytics
Understand App Usage Data at Scale

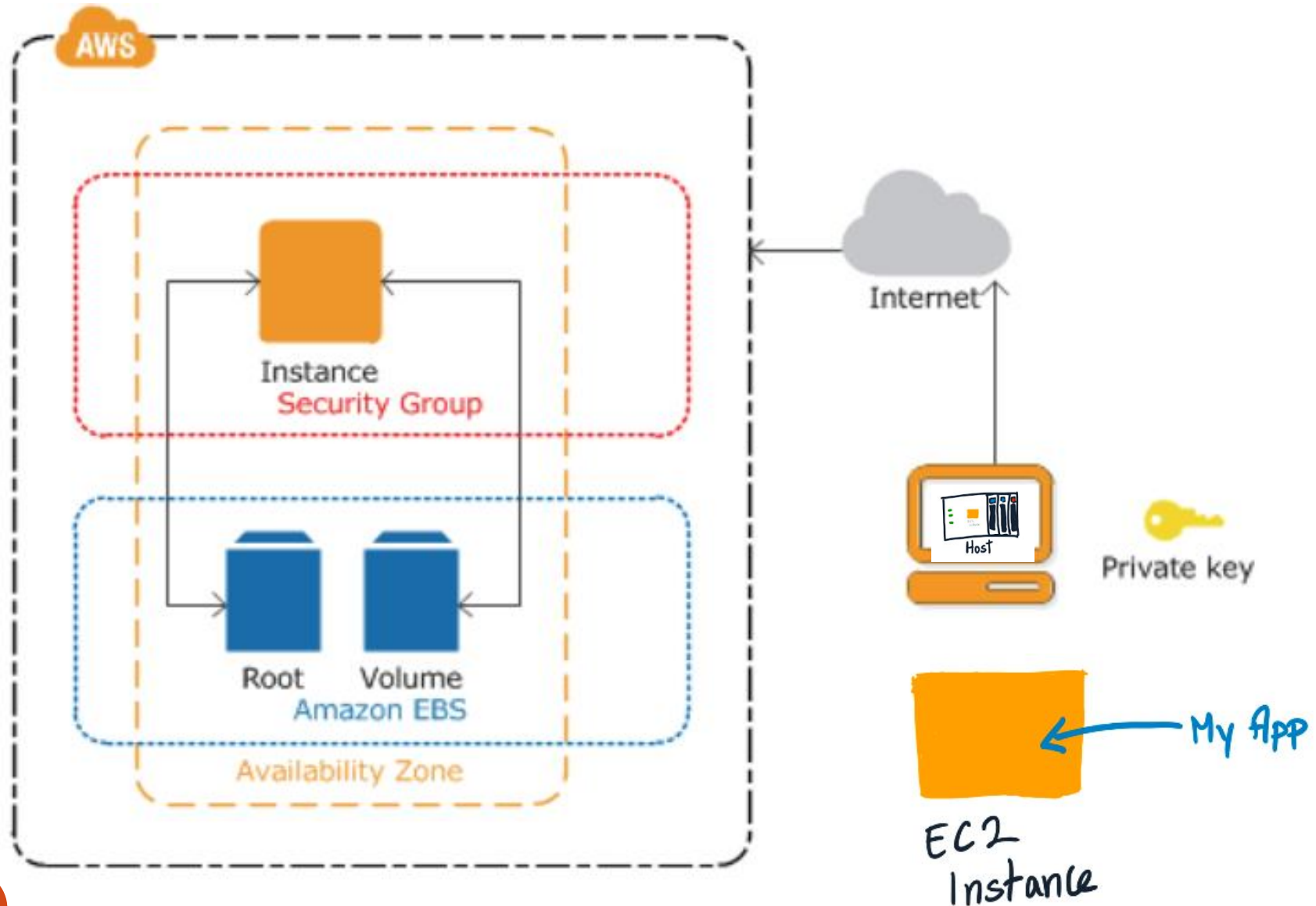**SNS**
Push Notification Service

Enterprise Applications

WorkSpaces
Desktops in the Cloud

Zocalo
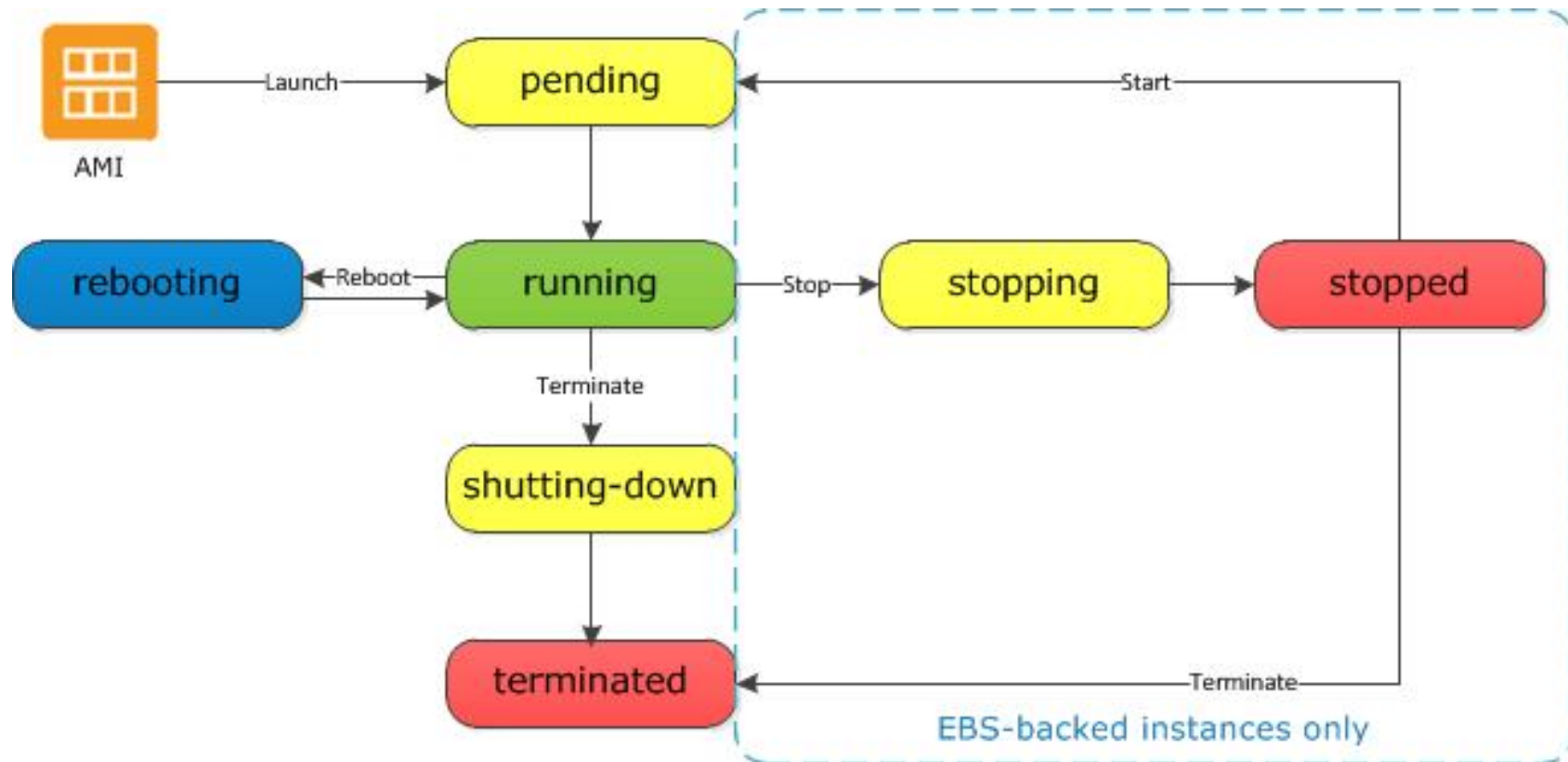Secure Enterprise Storage and Sharing Service

3

Lab2&3:-EC2 Instance (Linux/Windows)

AWS

Instance
Security Group

Root   Volume
Amazon EBS

Availability Zone

Internet

Host

Private key

My App

EC2
Instance

EBS- Elastic Block Store

Instance Lifecycle

- Instance Usage Billing Info.
- https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/ec2-instance-lifecycle.html
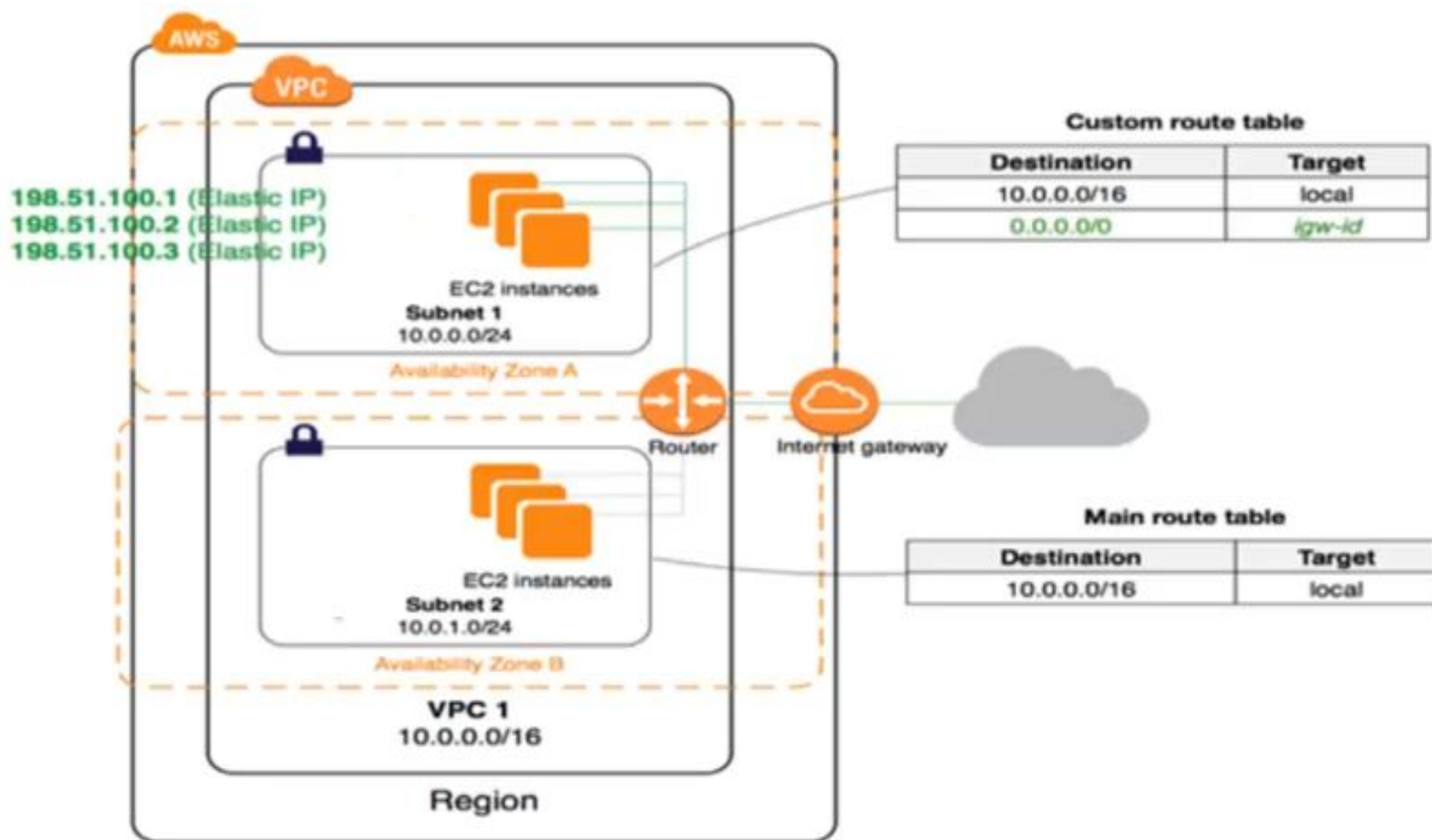
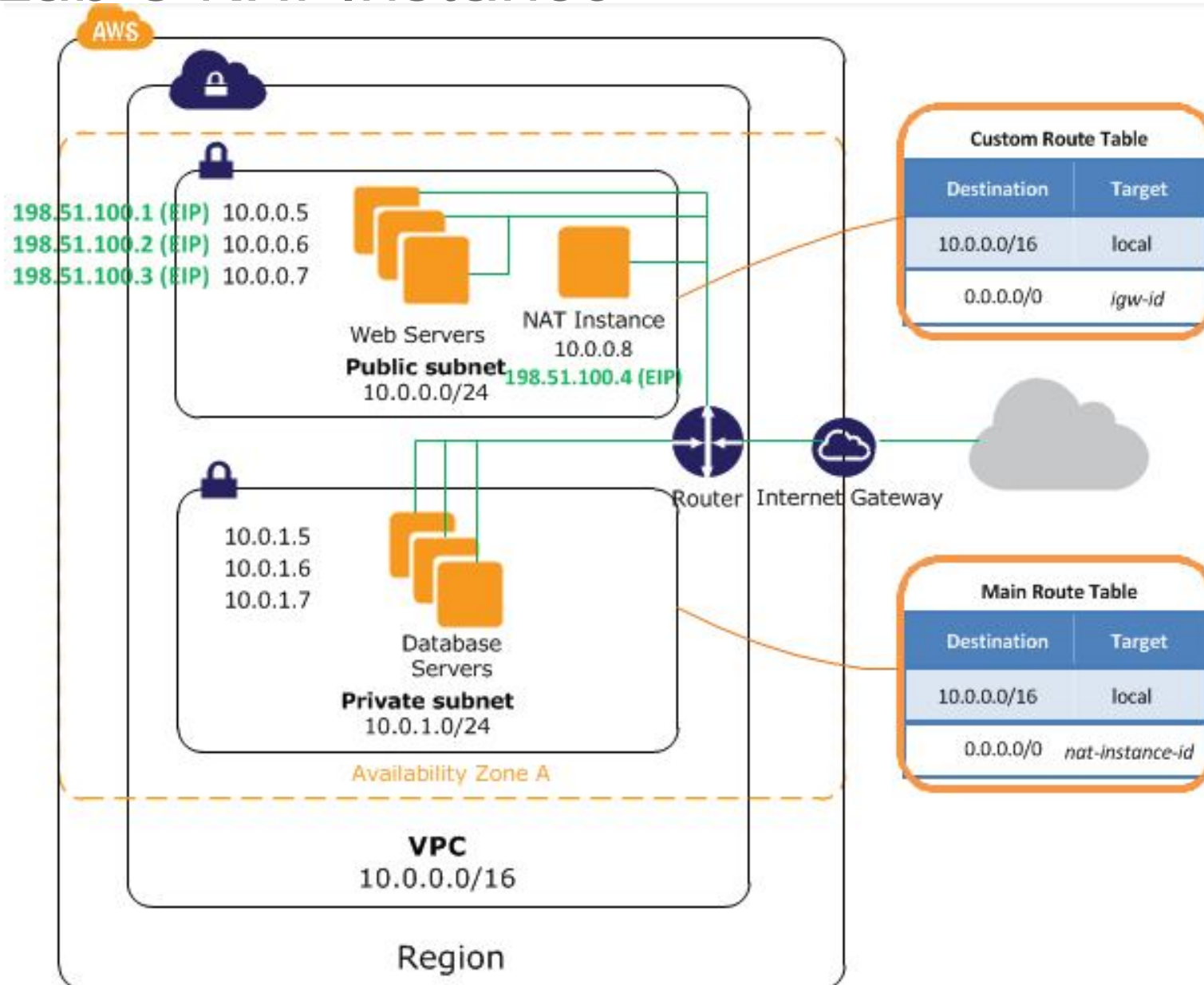21-09-2019

Lab4: S3
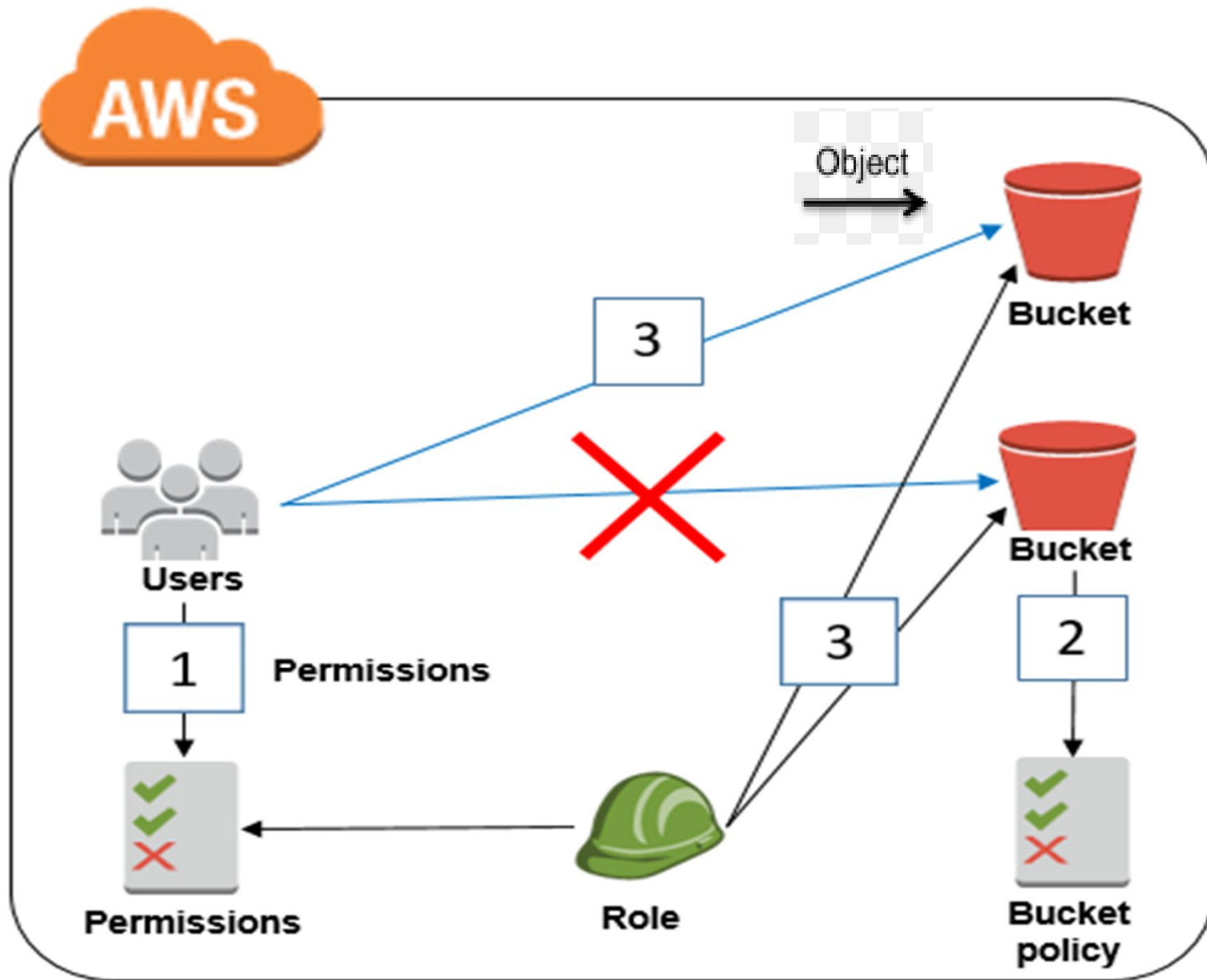
S3 Operations

- Storage Class
- Life Cycle Management
- Static Webpage Hosting
- Data Protection
  - Data Encryption
  - Versioning
- Bucket Policy (Permission setting)
- Replication (Cross-Region)
- Accelerated Transfer

Lab 5-VPC

Custom route table

Destination	Target
10.0.0.0/16	local
0.0.0.0/0	igw-id

Main route table

Destination	Target
10.0.0.0/16	local

198.51.100.1 (Elastic IP)
198.51.100.2 (Elastic IP)
198.51.100.3 (Elastic IP)

EC2 instances
Subnet 1
10.0.0.0/24
Availability Zone A

Router   Internet gateway

EC2 instances
Subnet 2
10.0.1.0/24
Availability Zone B

VPC 1
10.0.0.0/16

Region

AWS

VPC

Lab 6-NAT Instance

Lab 6-NAT Gateway

Custom route table

Destination	Target
10.0.0.0/16	local
0.0.0.0/0	igw-id

Main route table

Destination	Target
10.0.0.0/16	local
0.0.0.0/0	nat-gateway-id

198.51.100.1 (Elastic IP) 10.0.0.5
198.51.100.2 (Elastic IP) 10.0.0.6
198.51.100.3 (Elastic IP) 10.0.0.7

Web servers

NAT gateway
198.51.100.4 (Elastic IP)

Public subnet
10.0.0.0/24

Router   Internet gateway

10.0.1.5
10.0.1.6
10.0.1.7

Database servers

Private subnet
10.0.1.0/24

Availability Zone A

VPC
10.0.0.0/16

Region
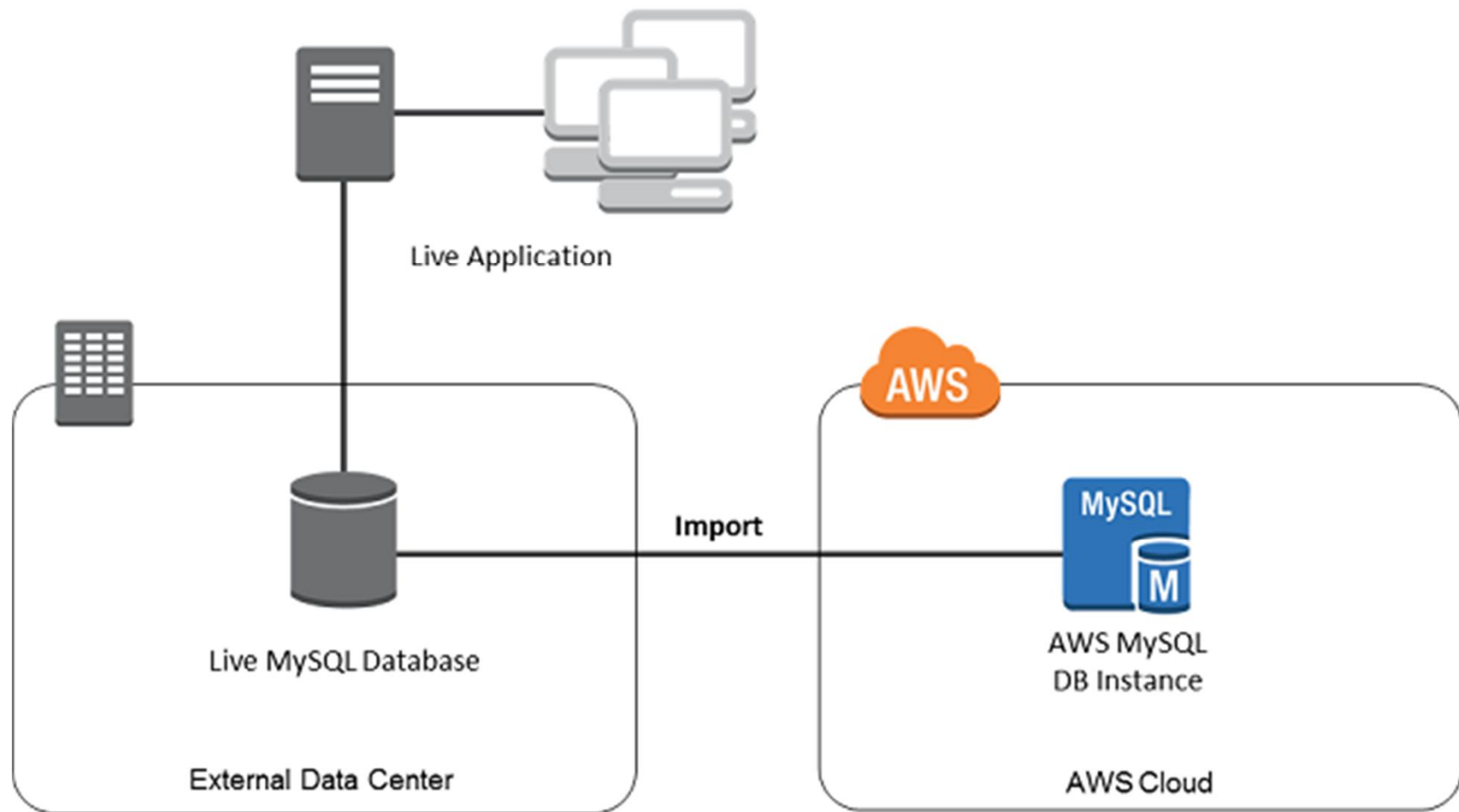
AWS

VPC

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Custom VPC Deletion

- No Running instances (Under Custom VPC)
- Go to NAT Gateway –> Action ->Delete First
- Go to VPC -> Action -> Delete Custom VPC

Default VPC Deletion and Create again

- No Running instances (under Default VPC)
- Go to VPC -> Action -> Delete Default VPC and Create same

Mr. Tamal Dey

Lab 7-RDS

Live Application

Live MySQL Database

Import

AWS

MySQL
M

AWS MySQL
DB Instance

External Data Center

AWS Cloud

Lab 8

AWS CloudWatch

Amazon CloudWatch is a monitoring service for AWS cloud resources and the applications you run on AWS.

Logs

Metrics

Amazon CloudWatch

E Mail