Custom AWS VPC

(2 Pubic, 2 Private Subnets, Deploy Simple PHP/MySQL Application)

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Default VPC

Default VPC diagram showing AWS Region (Mumbai) with Availability Zone A (ap-south-1a) 172.31.32.0/20, Availability Zone B (ap-south-1b) 172.31.0.0/20, Availability Zone C (ap-south-1c) 172.31.16.0/20, and Default VPC 172.31.0.0/16
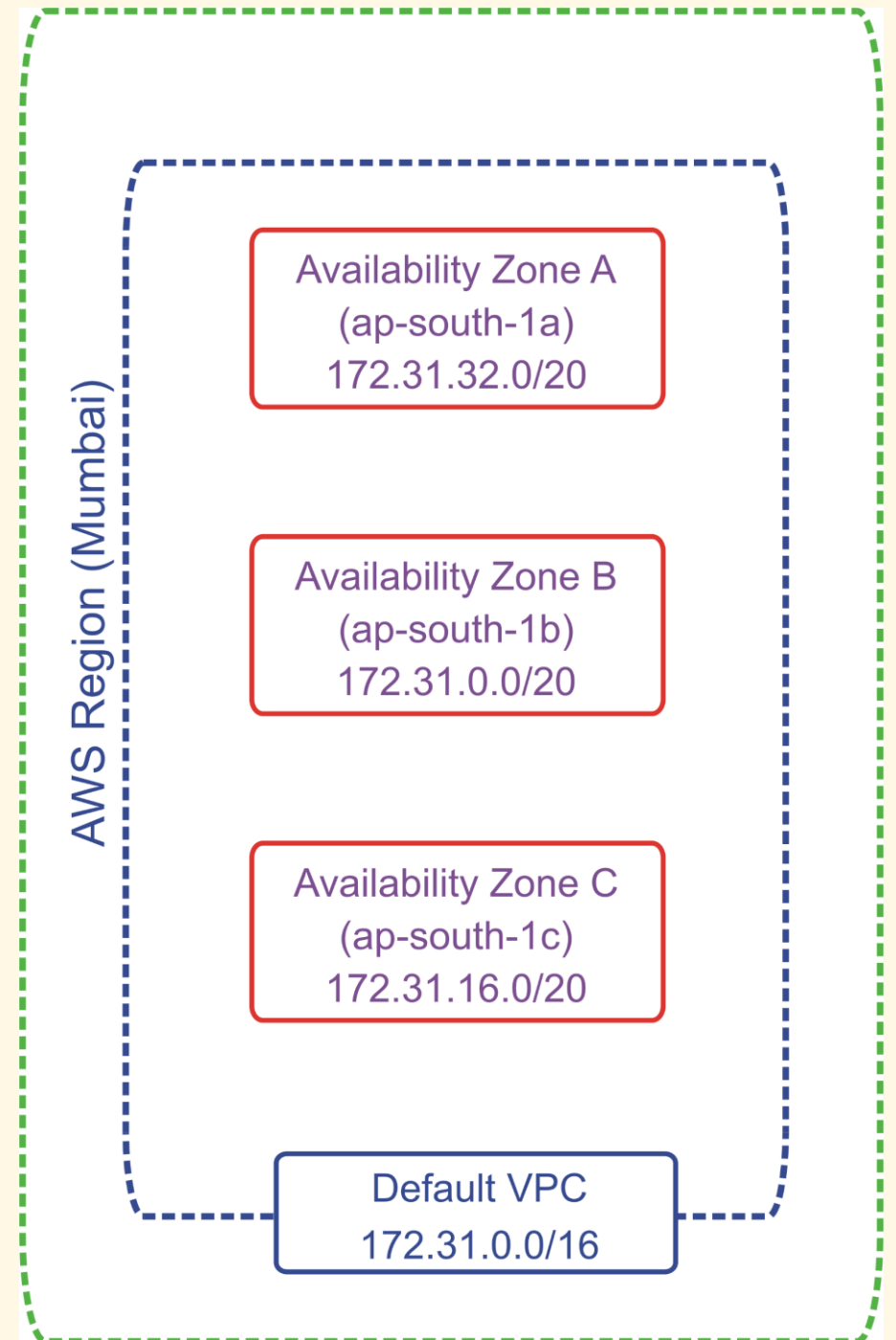
VPC
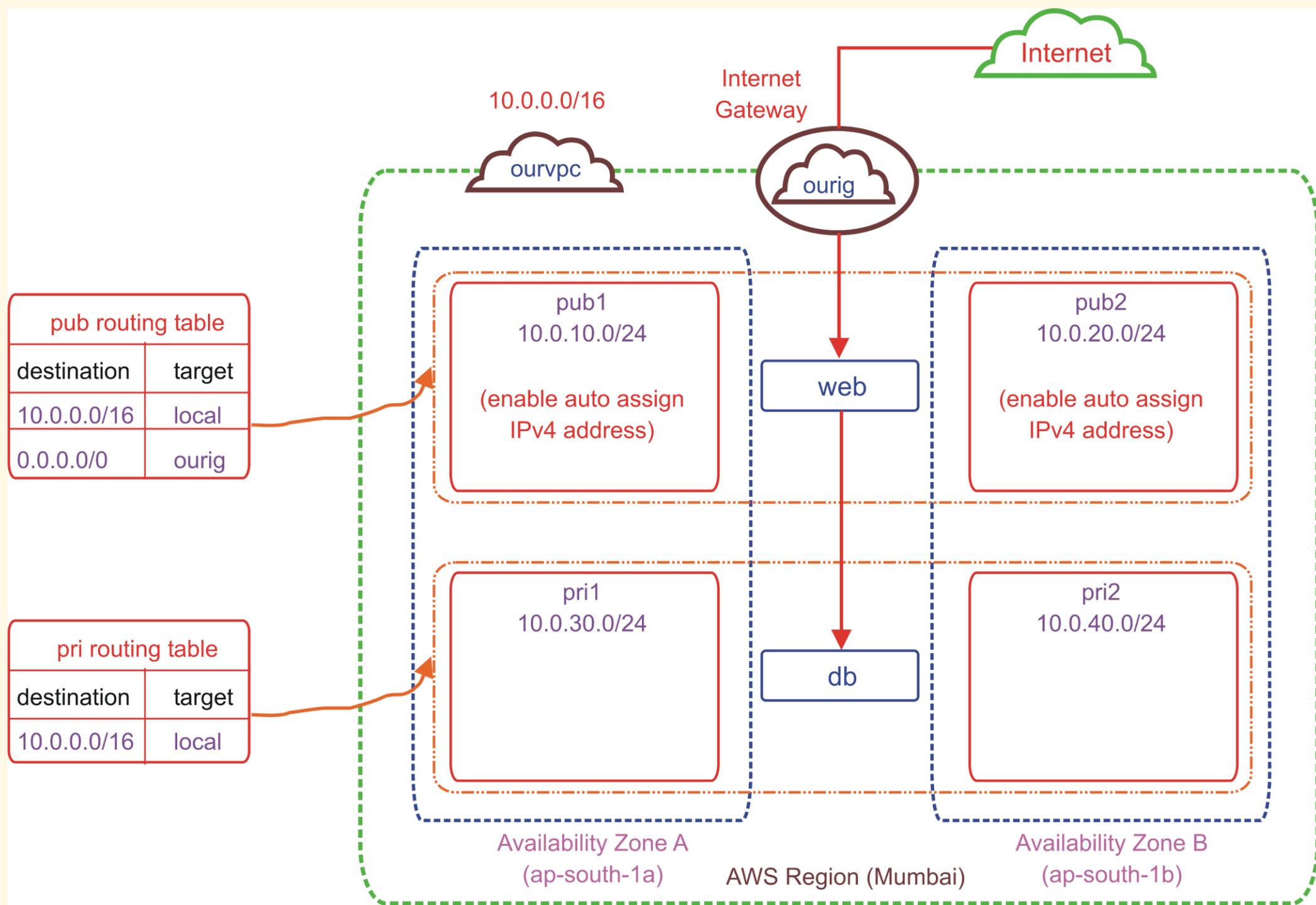
Custom VPC Step by Step

- VPC Lab Setup Details

- Create Custom VPC (ourvpc)

- Create Public Subnets (pub1, pub2) and Private Subnets (pri1, pri2)

- Create Internet Gateway (ourig) and Attach to VPC

- Create and Configure Routing Table (pub routing table)

- Create Webserver Security Group and Add Rules (web)

- Launch Internet Facing Linux Apache Web Server Instance (webserver)

- Create Database Security Group and Add Rules (db)

- Create Subnet Group For Database Using Private Subnets (db-subnet)

- Launch Backend RDS Instance (ourdb)

- Connect To Webserver Instance Using Putty

- Deploy Simple PHP/MySQL Application in Custom VPC

- Delete Custom VPC and Resources

Launch Web Server in Public Subnet

```bash
#!/bin/bash -ex
yum -y install nano httpd php mysql php-mysql
systemctl start httpd
systemctl enable httpd
```

Create index.php

```php
<?php
        $conn = mysqli_connect('ourdb.cn0kivmudvzk.ap-south-1.rds.amazonaws.com','aanya','Asdf#1234','employee');

        $q = "select * from salary limit 4";

        $result = mysqli_query($conn,$q);

        while ($row = mysqli_fetch_array($result))
                {
                        echo $row['eno']." ";
                        echo $row['dept']." ";
                        echo $row['salary']." ";
                        echo "<br />";
                }
?>
```

Connect To Database From Webserver

mysql --user aanya --password --host ourdb.cn0kivmudvzk.ap-south-1.rds.amazonaws.com

Create Table and Insert Data

```sql
use employee;
create table employee.salary (eno char(3) primary key,dept varchar(15),salary int(6));

insert into employee.salary values ("101","marketing",30000);
insert into employee.salary values ("102","sales",25000);
insert into employee.salary values ("103","production",12000);
insert into employee.salary values ("104","cs",20000);
insert into employee.salary values ("105","cs",55000);
insert into employee.salary values ("106","it",90000);

select * from employee.salary;
```