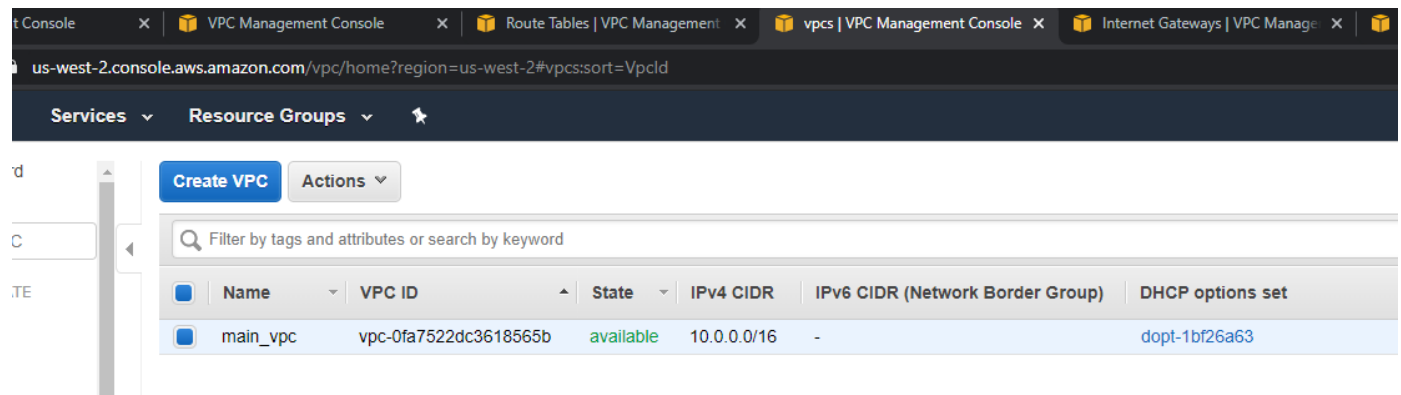


## VPC Creation:

```
resource "aws_vpc" "main_vpc" {
  cidr_block      = "10.0.0.0/16"
  tags = {
    Name = "main_vpc"
  }
}
```

## AWS /VPC:



The screenshot shows the AWS VPC Management Console interface. At the top, there are several tabs: "VPC Management Console", "Route Tables | VPC Management", "vpcs | VPC Management Console", and "Internet Gateways | VPC Management". The main content area displays a table of VPCs. The table has columns for "Name", "VPC ID", "State", "IPv4 CIDR", "IPv6 CIDR (Network Border Group)", and "DHCP options set". A single VPC is listed with the name "main\_vpc", VPC ID "vpc-0fa7522dc3618565b", and state "available".

	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR (Network Border Group)	DHCP options set
<input checked="" type="checkbox"/>	main_vpc	vpc-0fa7522dc3618565b	available	10.0.0.0/16	-	dopt-1bf26a63

## Subnetting:

2 Public and 2 private subnets were created with each being in a different AZ

```
resource "aws_subnet" "public_subnet_1" {
  vpc_id            = "${aws_vpc.main_vpc.id}"
  cidr_block        = "10.0.0.0/24"
  map_public_ip_on_launch = "true"
  availability_zone  = "us-west-2a"

  tags = {
    Name = "public_subnet_1"
  }
}
```

```

resource "aws_subnet" "public_subnet_2" {
  vpc_id      = "${aws_vpc.main_vpc.id}"
  cidr_block  = "10.0.1.0/24"
  availability_zone = "us-west-2b"
  map_public_ip_on_launch = "true"

  tags = {
    Name = "public_subnet_2"
  }
}

```

1 references

```

resource "aws_subnet" "private_subnet_1" {
  vpc_id      = "${aws_vpc.main_vpc.id}"
  cidr_block  = "10.0.2.0/24"
  availability_zone = "us-west-2c"

  tags = {
    Name = "private_subnet_1"
  }
}

```

1 references

```

resource "aws_subnet" "private_subnet_2" {
  vpc_id      = "${aws_vpc.main_vpc.id}"
  cidr_block  = "10.0.3.0/24"
  availability_zone = "us-west-2d"

  tags = {
    Name = "private_subnet_2"
  }
}

```

## AWS /VPC/Subnets:

Create subnet

Actions ▾

Q

Filter by tags and attributes or search by keyword

Name

Subnet ID

State

VPC

IPv4 CIDR

Availability

<input type="checkbox"/>	public_subnet_1	subnet-02e5ead0674034549	available	vpc-0fa7522dc3618565b  ...	10.0.0.0/24	25
<input type="checkbox"/>	private_subnet_1	subnet-0366c93cf958da8b8	available	vpc-0fa7522dc3618565b  ...	10.0.2.0/24	25
<input type="checkbox"/>	private_subnet_2	subnet-0584cdc0012a0166f	available	vpc-0fa7522dc3618565b  ...	10.0.3.0/24	25
<input type="checkbox"/>	public_subnet_2	subnet-05df233403be81d2c	available	vpc-0fa7522dc3618565b  ...	10.0.1.0/24	25

## Route Tables:

```
2 references
resource "aws_route_table" "public_route_table" {
  vpc_id = "${aws_vpc.main_vpc.id}"

  route {
    cidr_block = "0.0.0.0/0"
    gateway_id = "${aws_internet_gateway.internet_gateway.id}"
  }

  tags = {
    Name = "public_route_table"
  }
}
```

```
2 references
resource "aws_route_table" "private_route_table" {
  vpc_id = "${aws_vpc.main_vpc.id}"

  tags = {
    Name = "private_route_table"
  }
}
```

## Internet Gateway:

```
1 references
resource "aws_internet_gateway" "internet_gateway" {
  vpc_id = "${aws_vpc.main_vpc.id}"

  tags = {
    Name = "internet_gateway"
  }
}
```

## AWS /VPC/Internet Gateways:

Resource Groups					
<div> <div>Create internet gateway</div> <div>Actions</div> </div>					
<div> <div>Filter by tags and attributes or search by keyword</div> </div>					
<input type="checkbox"/>	Name	ID	State	VPC	Owner
<input checked="" type="checkbox"/>	internet_gateway	igw-0c35726455b...	attached	vpc-0fa7522dc36...	643433936634

## Route Tables:

2 Route tables were created, one for public subnets and one for private subnets

```
2 references
resource "aws_route_table" "public_route_table" {
  vpc_id = "${aws_vpc.main_vpc.id}"

  route {
    cidr_block = "0.0.0.0/0"
    gateway_id = "${aws_internet_gateway.internet_gateway.id}"
  }

  tags = {
    Name = "public_route_table"
  }
}
```

```
2 references
resource "aws_route_table" "private_route_table" {
  vpc_id = "${aws_vpc.main_vpc.id}"

  tags = {
    Name = "private_route_table"
  }
}
```

Associating route tables with subnets:

0 references

```
resource "aws_route_table_association" "public_association_1" {  
  subnet_id      = "${aws_subnet.public_subnet_1.id}"  
  route_table_id = "${aws_route_table.public_route_table.id}"  
}
```

0 references

```
resource "aws_route_table_association" "public_association_2" {  
  subnet_id      = "${aws_subnet.public_subnet_2.id}"  
  route_table_id = "${aws_route_table.public_route_table.id}"  
}
```

0 references

```
resource "aws_route_table_association" "private_association_1" {  
  subnet_id      = "${aws_subnet.private_subnet_1.id}"  
  route_table_id = "${aws_route_table.private_route_table.id}"  
}
```

0 references

```
resource "aws_route_table_association" "private_association_2" {  
  subnet_id      = "${aws_subnet.private_subnet_2.id}"  
  route_table_id = "${aws_route_table.private_route_table.id}"  
}
```

Final result on AWS:

Create route table

Actions ▾

Filter by tags and attributes or search by keyword

<input type="checkbox"/>	Name ▾	Route Table ID ▴	Explicit subnet association	Edge associations	Main
<input type="checkbox"/>	public_route_table	rtb-0692e5fc31345ff76	2 subnets	-	No
<input type="checkbox"/>		rtb-070f75b665b3037fb	-	-	Yes
<input type="checkbox"/>	private_route_table	rtb-0f2a3b49d62f995a9	2 subnets	-	No