Name: Mahendra  
  
Terraform\_Assignment1: Create VPC 2 subnets and launch 1 instance in one subnet and access the index.html through httpd.   
  
  
  
Solution :   
  
 # creating vpc

resource "aws\_vpc" "vpc\_test"{

cidr\_block = "10.10.0.0/16"

}

# creating Subnets

resource "aws\_subnet" "subnet-1"{

cidr\_block = "10.10.1.0/24"

availability\_zone = "ap-south-1a"

vpc\_id = "${aws\_vpc.vpc\_test.id}"

map\_public\_ip\_on\_launch = true

}

resource "aws\_subnet" "subnet-2"{

cidr\_block = "10.10.2.0/24"

availability\_zone = "ap-south-1b"

vpc\_id = "${aws\_vpc.vpc\_test.id}"

}

### Creating Igw

resource "aws\_internet\_gateway" "test\_Igw"{

vpc\_id = "${aws\_vpc.vpc\_test.id}"

}

### Creating route tables

resource "aws\_route\_table" "rt1"{

vpc\_id = "${aws\_vpc.vpc\_test.id}"

route {

cidr\_block = "0.0.0.0/0"

gateway\_id = "${aws\_internet\_gateway.test\_Igw.id}"

}

}

### Creating route table association

resource "aws\_route\_table\_association" "a" {

subnet\_id = "${aws\_subnet.subnet-1.id}"

route\_table\_id = "${aws\_route\_table.rt1.id}"

}

resource "aws\_route\_table\_association" "b" {

subnet\_id = "${aws\_subnet.subnet-2.id}"

route\_table\_id = "${aws\_route\_table.rt1.id}"

}

##### Creating Security group

##### Creating Security Group #####

resource "aws\_security\_group" "Sg-1" {

name = "SG\_tf"

description = "Allow HTTP (8080) and SSH"

vpc\_id = aws\_vpc.vpc\_test.id

tags = {

Name = "SG\_tf"

}

}

##### Inbound Rule – Allow Port 80 (HTTP) #####

resource "aws\_security\_group\_rule" "allow\_http\_80" {

type = "ingress"

from\_port = 80

to\_port = 80

protocol = "tcp"

cidr\_blocks = ["0.0.0.0/0"]

security\_group\_id = aws\_security\_group.Sg-1.id

}

resource "aws\_security\_group\_rule" "allow\_http\_8080" {

type = "ingress"

from\_port = 8080

to\_port = 8080

protocol = "tcp"

cidr\_blocks = ["0.0.0.0/0"]

security\_group\_id = aws\_security\_group.Sg-1.id

}

##### Inbound Rule – Allow Port 22 (SSH) #####

resource "aws\_security\_group\_rule" "allow\_ssh" {

type = "ingress"

from\_port = 22

to\_port = 22

protocol = "tcp"

cidr\_blocks = ["0.0.0.0/0"]

security\_group\_id = aws\_security\_group.Sg-1.id

}

##### Outbound Rule – Allow All #####

resource "aws\_security\_group\_rule" "allow\_all\_outbound" {

type = "egress"

from\_port = 0

to\_port = 0

protocol = "-1"

cidr\_blocks = ["0.0.0.0/0"]

security\_group\_id = aws\_security\_group.Sg-1.id

}

### creating Instance

resource "aws\_instance" "tr-instance"{

ami = "ami-00af95fa354fdb788"

instance\_type = "t2.micro"

key\_name = "Demo\_Key\_17May"

subnet\_id = "${aws\_subnet.subnet-1.id}"

vpc\_security\_group\_ids = ["${aws\_security\_group.Sg-1.id}"]

associate\_public\_ip\_address = true

user\_data = <<-EOF

#!/bin/bash

yum update -y

yum install -y httpd

systemctl enable httpd

systemctl start http

echo "Terraform Script running..!" > /var/www/html/index.html

chmod -R 777 /var/www/html/index.html

EOF

tags = {

Name = "Mytr-1"

}

}   
  
  
