**Deploy an Application in a VPC with Private Subnet:**

**Steps:**

* **Create a Virtual Private Cloud:**
* **Go the VPC dashboard in AWS console.**
* **Click on the create VPC and select the VPC more.**
* **Choose the number of availability zones in this case I have chosen 2 availability zones .**
* **Choose the 2 public subnets and 2 private subnets.**
* **Choose 1 NAT gateway per availability zone and click on create VPC.**
* **Go to security groups and click on edit inbound rules add or allow the all traffic rule and ssh port number22 and http port no.80 and click on save changes.**
* **Creation of Auto Scaling Group:**
* **Go to EC2 dashboard and click on Auto Scaling Groups.**
* **Click on create auto scaling group and enter the name of auto scaling group.**
* **Click on create launch template in which we have to specify the ami ,instance type,key pair,security group whatever we want.**
* **Go to auto scaling group tab select the template whatever I have created and click on next button.**
* **Select the VPC,two Availability zones with private Subnet click on next.**
* **Select no laod balancer option and no vpc lattice service and then click on next.**
* **Specify the desired capacity of group and minimum ,maximum capacity and select no scaling policies click on next.**
* **Click on next and finally click on create auto scaling group.**
* **Creation of Public instance (Bastion Host):**
* **Go to Instance and Click on launch instances.**
* **Enter the name of instance and choose the ami,instance type,key pair security group and select public subnet.**
* **In the security group allow all traffic or ssh,http port number.**
* **Click on launch instance.**
* **Connect this instance through putty.**
* **Deploy the application on Private servers:**
* **From bastion host connect the private servers by using ssh client.**
* **Copy the pem file and modify the file permission by using chmod command on bastion host.**
* **Copy this command to access the private server “ssh -i "key pair name" ec2-user@private ip”.**
* **After connecting to private server install the nginx and start the nginx**
* **Add or allow security group of load balancer to the private servers of security group after creating load balancer.**
* **Creation of Load Balancer:**
* **First Create the target group in which select the instances, specify the name of target group and we can register the servers inside the target group**
* **After creating target group click on load balancer and select type of load balancer in which I have selected application load balancer.**
* **Enter the laod balancer name,select the vpc,two availability zones with public subnet and choose security group or create new security group.**
* **Select target group name whatever I have created earlier and click on create load balancer.**
* **Configure the health checks of instances in target group.**

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