PROJECT

You are the cloud engineer for a virtual coffee shop chain that wants to move their operations to the cloud.They need a scalable and cost-effective solution to ensure their website and backend are always up and running.

Guidelines/Goals:

1. Create a virtual Private Cloud(VPC):
    - Set up a VPC with IPv4 CIDR block and divide it into subnets (public and private).
    - Allow Elastic IP addresses for instances in the public subnet.
2. Launch EC2 instances:
    - Launch an Ec2 instance for the website using Amazon Linux 2 AMI.
    - Launch another Ec2 instance for the backend using Amazon Linux 2 AMI.
    - Choose appropriate instance types based on the instance's purpose.
3. Configure security groups and network ACLs:
    - Create security group for each instance to control inbound and outbound traffic.
    - Set up Network ACLs to provide additional layer of security.
4. Set up Elastic Load Balancer(ELB):
    - Create an Application load balancer
    - Configure the ELB to distribute traffic to the website instance
    - Ensure the ELB is in the public subnet