Component	Description	Configuration Details
VPC	Isolated network for resources	CIDR: 10.0.0.0/16
Public Subnet	Subnet for resources accessible from the internet	CIDR: 10.0.1.0/24, Subnet Mask: 255.255.255.0
Private Subnet	Subnet for resources not accessible from the internet	CIDR: 10.0.2.0/24, Subnet Mask: 255.255.255.0
Internet Gateway	Enables internet access for VPC resources	Attached to VPC
NAT Gateway	Allows outbound internet access for private subnet resources	Deployed in public subnet
Application Servers	EC2 instances for application logic	AMI: Amazon Linux 2, Instance Type: t2.micro
Database Servers	EC2 instances for database operations	AMI: Amazon Linux 2, Instance Type: t2.micro
Component	Description	Configuration Details
S3	Object storage service	Used for static content and backups
ELB	Distributes incoming traffic	Type: Application Load Balancer
Security Groups	Controls inbound and outbound traffic for instances	Rules: Allow HTTP, HTTPS, and SSH traffic

Route Tables	Controls routing of traffic within VPC	Routes: Default route to internet via IGW
AWS CloudTrail	Logs all API calls	Enabled for all regions
Amazon GuardDuty	Provides continuous security monitoring	Enabled for the AWS account