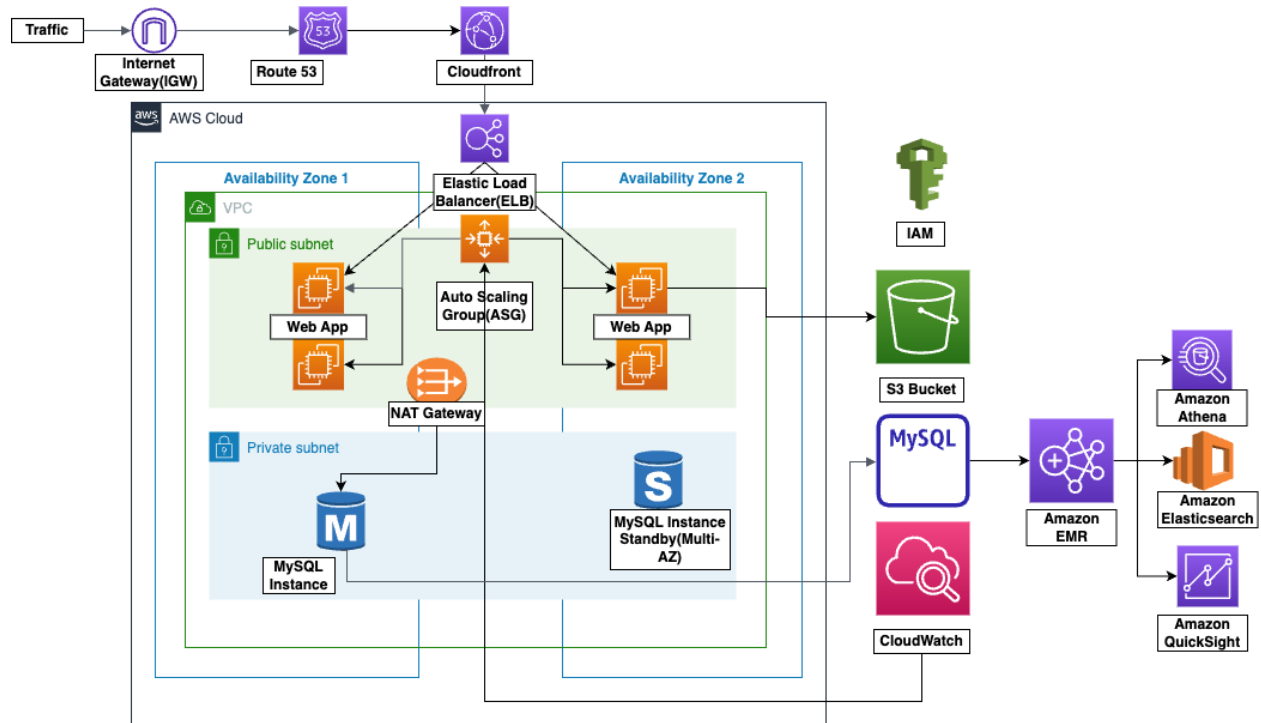


AWS Architecture for Three Tier Application



1. **Internet Gateway:** All the inbound and outbound traffic that comes from the internet to VPC.
2. **Route 53:** A DNS service that enables you to manage domain names and direct traffic to AWS resources.
3. **Cloudfront:** A content delivery network (CDN) service that accelerates the delivery of web content, including static and dynamic content, to users worldwide.
4. **Virtual Private Cloud(VPC):** A logical isolated section of AWS cloud where you can launch AWS resources.
5. **Availability Zone(AZ):** Physical data centers in which AWS resources reside and storing your resources across multiple AZs makes their service highly available and resilient.
6. **Subnet:** Our application has public subnet and private subnet where in public subnet has resources that can have public IP addresses and can receive traffic directly from the internet and private subnet do not have public IP and can not receive traffic directly.
7. **Elastic Load Balancer(ELB):** Distributes incoming traffic across multiple EC2 instances or target groups in different availability zones.
8. **CloudAlarm:** CloudAlarm monitors metrics or expression relative to a threshold over a number of time periods and based on the result of expression it alerts or triggers actions.
9. **Auto Scaling Group(ASG):** When CloudAlarm triggers that instance is overloaded with traffic ASG launches new instances here we have 2 minimum and 2 desired instances one in each AZ. If CPU time goes over threshold ASG starts new instances.
10. **NAT Gateway:** NAT gateway acts as a highly available and scalable gateway that enables outbound internet connectivity for instances in a private subnet.
11. **Elastic Compute Cloud(EC2):** EC2 provides different combinations of CPU, memory, storage and networking capacity. Which does the computation of the web application.
12. **S3:** A durable, highly-scalable object storage service used to store static files.
13. **RDS(MySQL):** Relational database is block storage which provides scalable and high performance database service. We are storing in multiple AZs for high availability. Here it is on standby.
14. **IAM:** Define IAM roles that can do specific tasks and control over them to access AWS resources.
15. **Amazon EMR:** Managed cluster platform that simplifies running Apache Hadoop big data frameworks. Amazon Athena, Amazon Elasticsearch and Amazon QuickSight.