



3-Tier AWS Architecture for Frontend

This architecture outlines the deployment of the frontend component of the restaurant menu application using Amazon Web Services (AWS). The frontend is hosted as a static website, served globally with low latency and high availability.

1. Amazon Route 53 (DNS Service)

Amazon Route 53 is utilized to manage the DNS routing for the restaurant menu application's domain. It translates human-readable domain names into IP addresses and directs user requests to the appropriate services. In this architecture, Route 53 routes incoming traffic to an Amazon CloudFront distribution.

2. Amazon CloudFront (Content Delivery Network)

Amazon CloudFront acts as a Content Delivery Network (CDN) that distributes the static content of the restaurant menu application globally. By caching the content at edge locations around the world, CloudFront ensures fast and secure delivery to users regardless of their geographic location. This reduces latency and improves the performance of the application.

3. Amazon S3 (Simple Storage Service)

Amazon S3 is used to host the static assets of the restaurant menu application, including HTML, CSS, JavaScript, and image files. S3 provides a scalable, durable, and highly available storage solution. The static files are served from S3 to CloudFront, which then caches and delivers them to users.

Security and Scalability

The entire setup is secured using SSL/TLS certificates managed by AWS Certificate Manager (ACM), ensuring encrypted communication between users and the application. This architecture is designed to be highly scalable, accommodating varying levels of traffic without degradation in performance.