



# Mom & Pop Café

Suggesting ElastiCache & Elastic  
Load Balancer

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# Agenda

1. Introduction
2. ElastiCache
3. Benefits of Caching Data
4. Impact of Load on Web Applications
5. Elastic Load Balancer
6. Features & Benefits of Load Balancing
7. Importance of Multiple Availability Zones
8. Importance of Application Load Balancer
9. Monitoring Load Balancer Effectiveness
10. Load Balancing Vs Automatic Scaling
11. Cost and Potential Savings
12. Conclusion





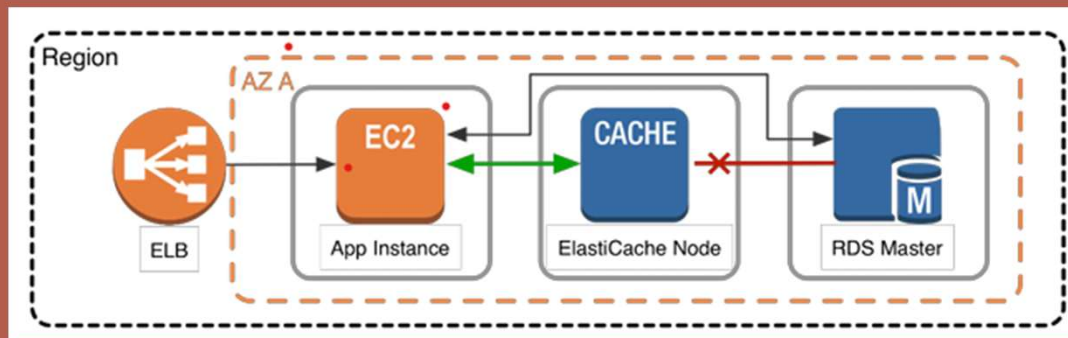
# Introduction

- Mom & Pop Café is local coffee chain specializes in fresh roasted coffee beans.
- Expanding business and making it available online.
- Benefits of two AWS services to achieve Business Motto
  1. ElastiCache
  2. Elastic Load Balancing



# ElastiCache

ElastiCache is a web service that makes it easy to deploy and operate an in-memory cache in the cloud.







# Benefits of Caching Data

- Faster response time for users
- Reduced load on the backend systems
- Cost savings by reducing the number of database requests
- Increased scalability

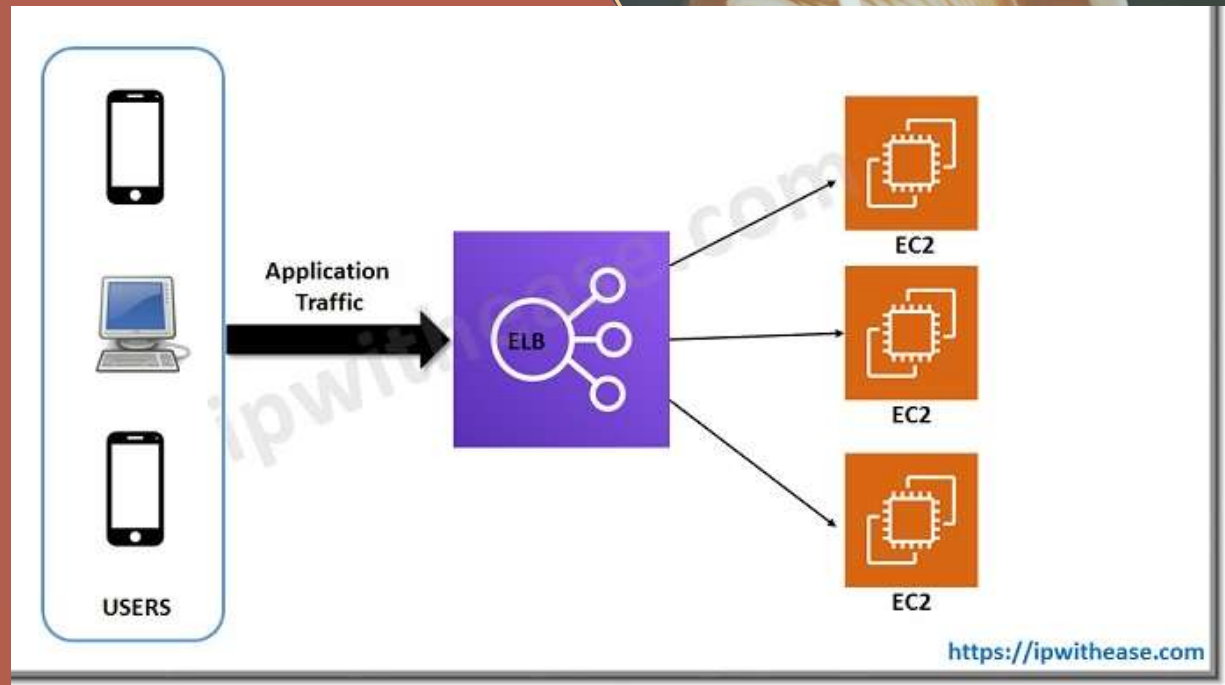
# Impact of Load on Performance of Web Application

- Load of websites increases with number of users accessing website increases
- Slower in response
- Increased downtime
- Excessive Network Traffic



# Elastic Load Balancer

Elastic Load Balancing distributes incoming traffic across multiple targets, such as EC2 instances, containers, and IP addresses.







# Features & Benefits of Load Balancing

- High Availability
- Improved Scalability
- Fault tolerant
- Reduced response time
- Increased security





# Importance of Multiple Availability Zones

- Ensuring of Traffic Distribution across multiple data centers
- Improves availability and performance across region
- Fault tolerant



# Importance of Application Load Balancer

- Routes traffic of website based on content
- Better control over traffic flow
- More flexibility in traffic routing i.e., path, host and containerized applications





## Monitoring Load Balancer Effectiveness

Services used for monitoring load balancer effectiveness of Load Balancer

1. CloudWatch - Real-time monitoring
2. ELB Metrics - Health of the load balancer and troubleshooting issues





## Load Balancing



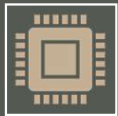
## Automatic Scaling

- Working together to improve the performance and availability of web applications.
- Load balancing distributes traffic across multiple targets, while automatic scaling modifies targets based on demand.
- Load balancing ensures that traffic is distributed evenly, while automatic scaling ensures that the application can handle the additional load.

# Cost and Potential Savings



Cost depends on the size and usage of the application.



Result in cost saving by reducing load on the database



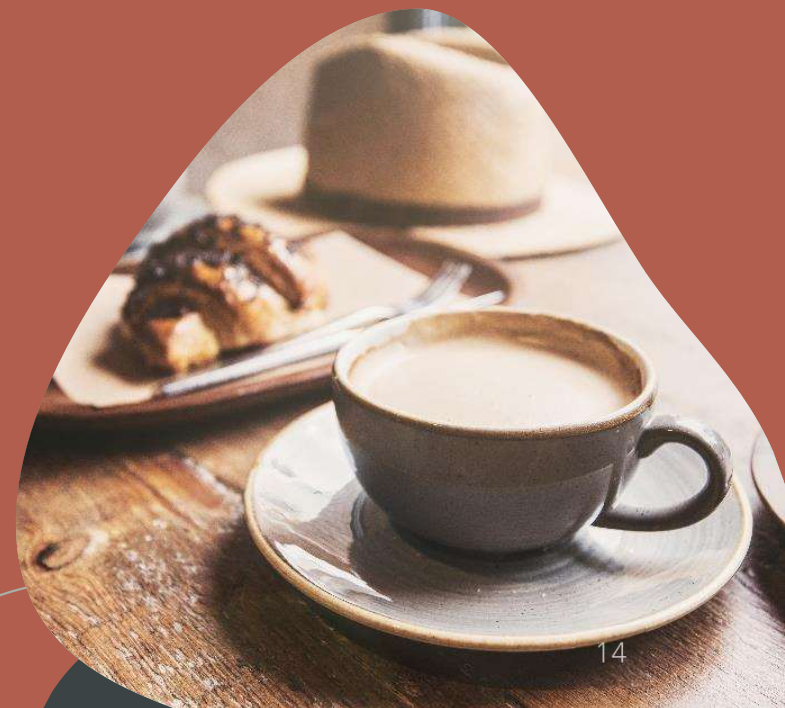
Benefits Café by increasing revenue, scaling services globally, and improving customer experience



# Conclusion



- ElastiCache and ELB are cost-effective ways to improve the reliability & availability of Mom & Pop Café's web application during holiday seasons.
- ElastiCache caches frequently accessed data, reducing the load on the database & improving the performance of the application.
- ELB distributes traffic across multiple targets & automatically scales to meet the demand, improving the availability & reliability of the application.
- By using these services, Mom & Pop Café can scale their services globally, improve customer experience, and increase revenue.







Thank You