

TravelMemory (MERN) – AWS Cloud Deployment

EC2 · Nginx · PM2 · ALB · ASG · Cloudflare · MongoDB Atlas

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Region: ap-south-1 (Mumbai)

Executive Summary

This report captures the complete AWS deployment of the TravelMemory MERN application. Nginx serves the React frontend and proxies the backend Node.js app (PM2) on port 3001. An internet-facing ALB sends "/" to tg-frontend and "/trip*" to tg-backend. Each target group is powered by an Auto Scaling Group (min=2) across multiple AZs. Cloudflare DNS exposes app.rohanmangate.online (CNAME → ALB) and frontend.rohanmangate.online (A → single frontend EC2). MongoDB Atlas provides the database via MONGO_URI. All health checks are green.

Architecture Diagram

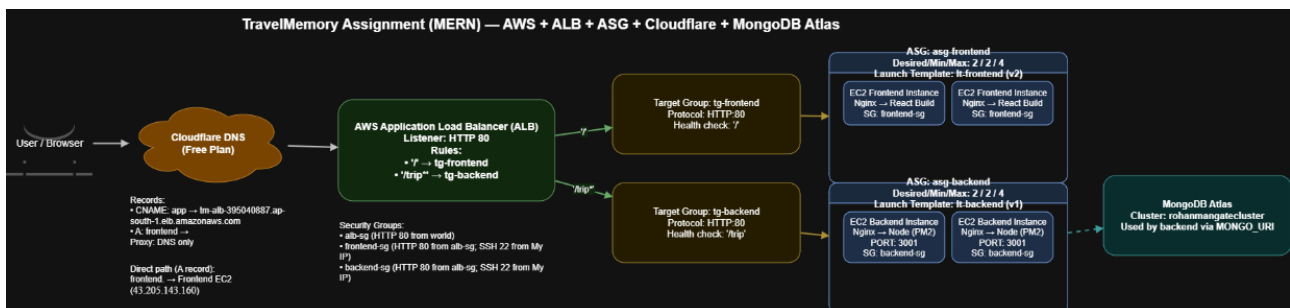
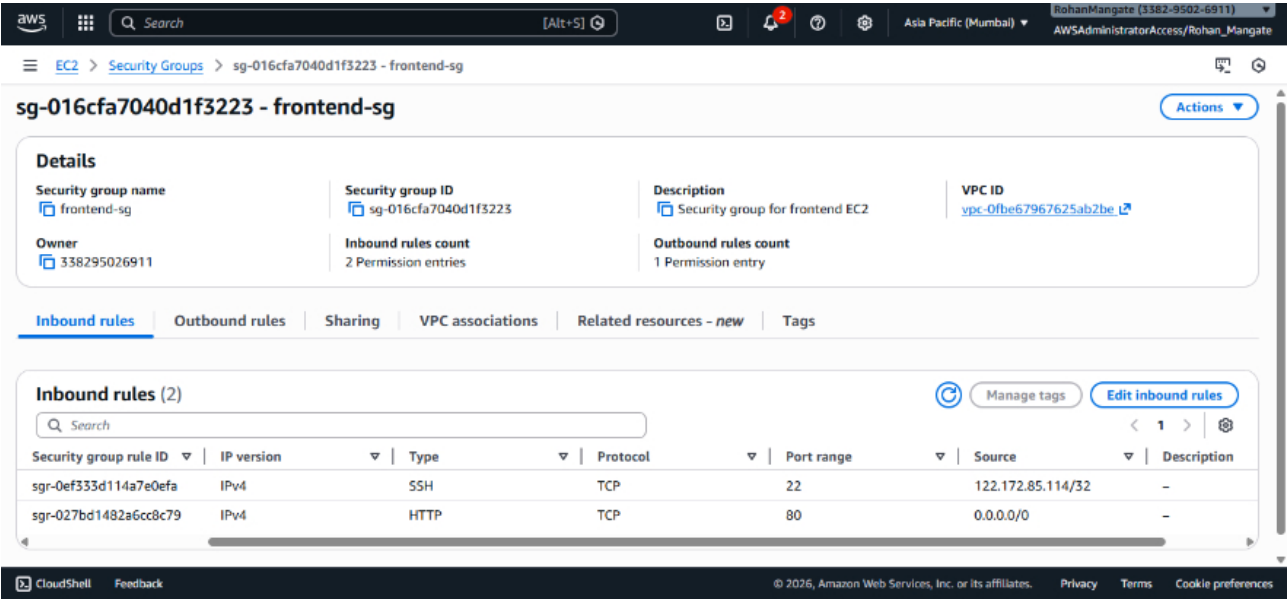


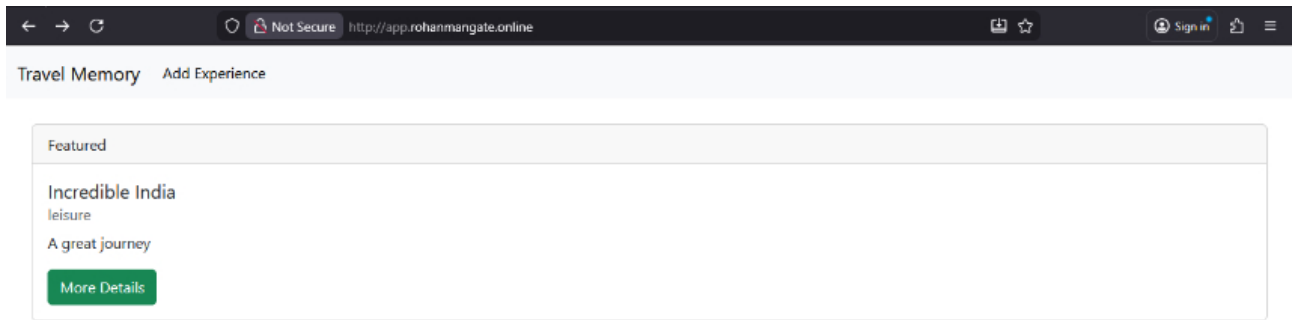
Figure: Overall architecture and data flow.

Screenshots (Validation & Console Proof)



Frontend UI via ALB (app.rohanmangate.online)

File: Screenshot 2026-02-21 122747.png



Experience Details via ALB

File: Screenshot 2026-02-22 064935.png

← → ↻

Not Secure http://app.rohanmangate.online/experiencedetails/6999804dbc312cfe97213669

🖨 100% ☆

Sign in 📁 ☰

Travel Memory Add Experience

Incredible India

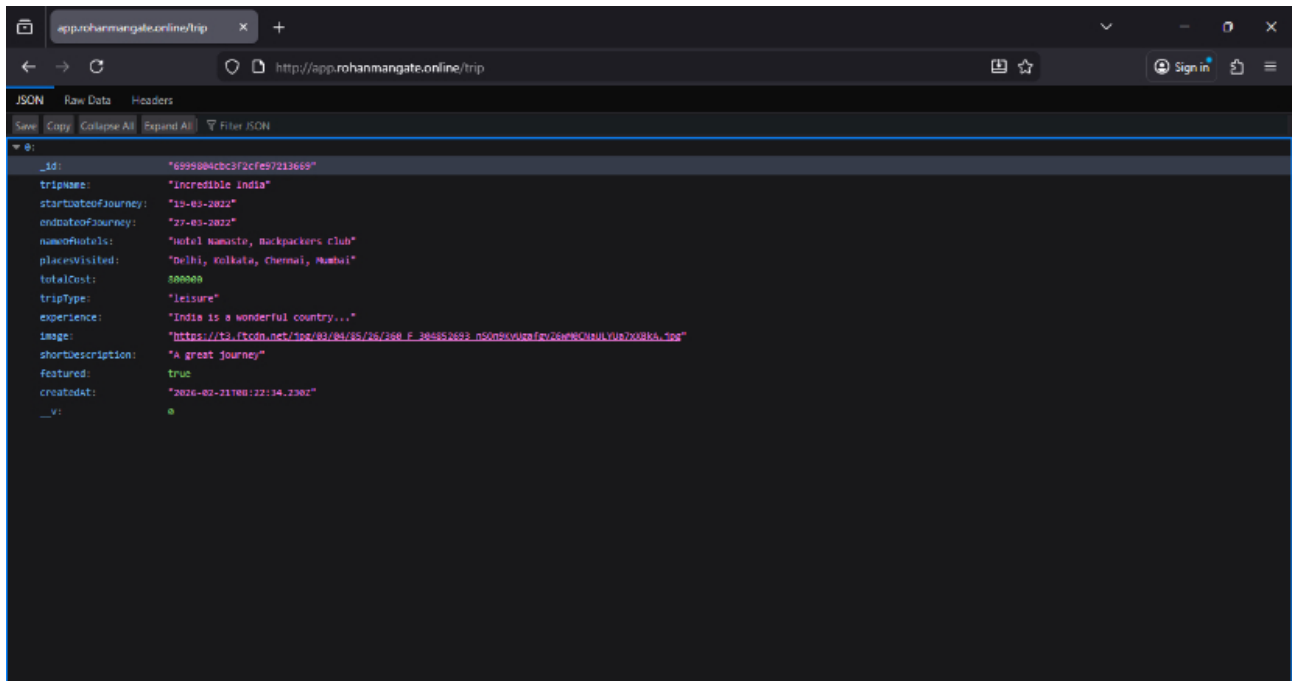


Name of Hotel: Hotel Namaste, Backpackers Club
Start Date: 19-03-2022 End Dates: 27-03-2022
Places Visited: Delhi, Kolkata, Chennai, Mumbai
Total Cost: 800000
Trip Type: leisure

India is a wonderful country...

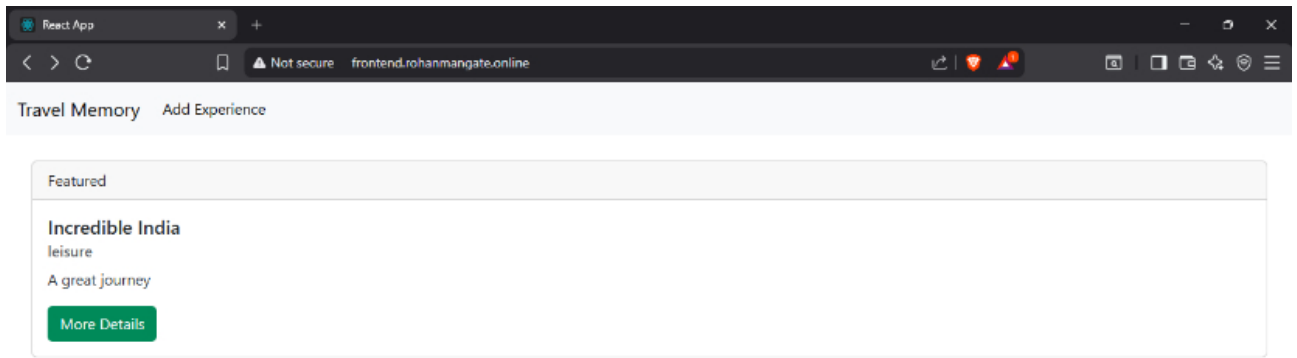
Backend JSON /trip via ALB path rule

File: Screenshot 2026-02-22 065000.png



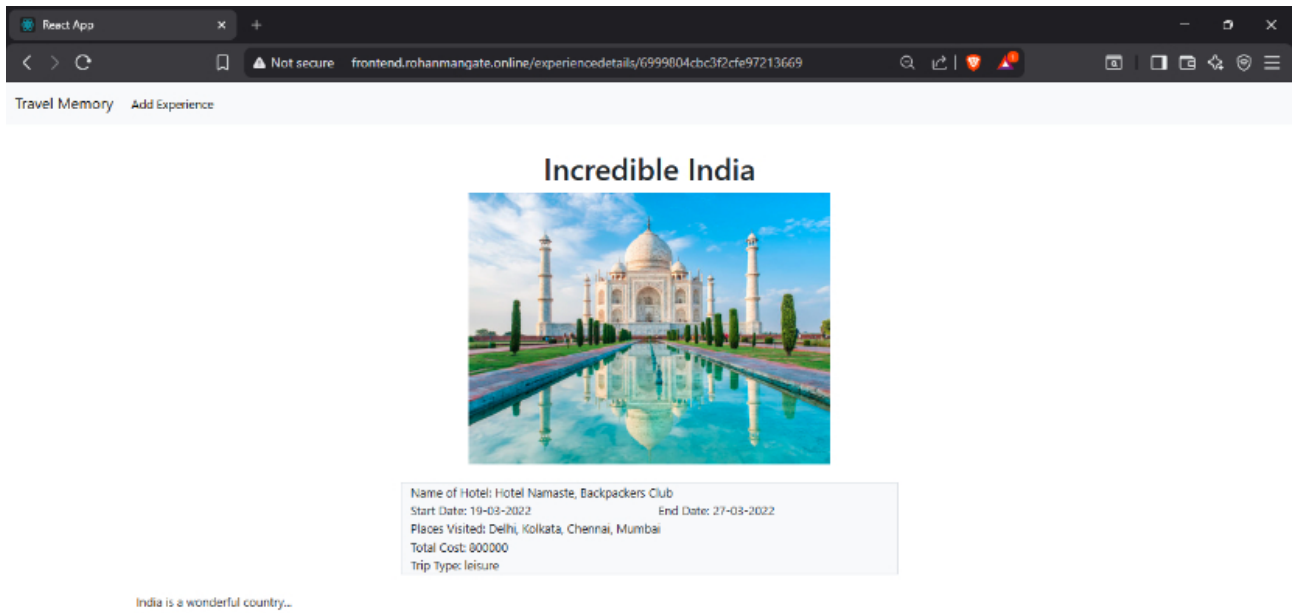
Direct Frontend EC2 UI (frontend.rohanmangate.online)

File: Screenshot 2026-02-22 065027.png



Direct Frontend EC2 – Experience Details page

File: Screenshot 2026-02-22 065053.png



Cloudflare Overview – Domain Active

File: Screenshot 2026-02-22 065116.png

aws Ask Amazon Q

EC2 > Security Groups > sg-0dc8ffb230bec7134 - alb-sg

Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Capacity Manager [New](#)

▼ Images
AMIs
AMI Catalog

▼ Elastic Block Store
Volumes
Snapshots
Lifecycle Manager

▼ Network & Security
Security Groups
Elastic IPs
Placement Groups

sg-0dc8ffb230bec7134 - alb-sg

[Actions](#)

Details

Security group name alb-sg	Security group ID sg-0dc8ffb230bec7134	Description security group for ALB	VPC ID vpc-0f6e67967625ab2be
Owner 338295026911	Inbound rules count 1 Permission entry	Outbound rules count 1 Permission entry	

[Inbound rules](#) | [Outbound rules](#) | [Sharing](#) | [VPC associations](#) | [Related resources - new](#) | [Tags](#)

Inbound rules (1) [Manage tags](#) [Edit inbound rules](#)

Security group rule ID	IP version	Type	Protocol	Port ra...	Source
sgr-0253ff4dad27ff865	IPv4	HTTP	TCP	80	0.0.0.0/0

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Cloudflare DNS – CNAME app → ALB, A frontend → EC2

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