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ROLE:CLOUD SECURITY ENGINEER

TASK:SECURE WEB APPLICATION DEPLOYMENT IN AWS

In this experience, I successfully designed, deployed, and secured a web application in AWS, ensuring end-to-end encryption, threat protection, and strict access controls. This involved hosting a static website, implementing HTTPS with SSL/TLS certificates, and configuring AWS Web Application Firewall (WAF) to mitigate security threats.

Key Achievements:

- Secure Hosting: Deployed a web application using Amazon S3 with CloudFront CDN for enhanced security and performance.
- Encrypted Traffic: Implemented SSL/TLS via AWS Certificate Manager (ACM) to enforce HTTPS and encrypt all data in transit.
- Threat Protection: Configured AWS WAF with custom rules to block SQL injection, XSS, and DDoS attacks.
- Access Control: Enforced IAM least privilege policies and S3 bucket security to restrict unauthorized access.
- Compliance & Monitoring: Enabled AWS CloudTrail & AWS Config to track security events and maintain compliance.

Technical Implementation:

Hosting & Distribution:

Amazon S3 for static site hosting.

Amazon CloudFront for content delivery and DDoS protection.

Route 53 for DNS management.

Security Enhancements:

SSL/TLS certificate via AWS Certificate Manager (ACM).

HTTP-to-HTTPS redirection for encrypted traffic.

AWS WAF rules to prevent OWASP Top 10 attacks.

AWS Shield Standard for additional DDoS protection.

Monitoring & Compliance:

AWS CloudTrail and AWS Config for real-time logging and audits.

IAM role restrictions for least privilege access control.

Business Impact:

- Reduced Security Risks – Strong encryption and WAF mitigated cyber threats.
- Improved Performance & Reliability – CloudFront optimized content delivery.
- Enforced Compliance – Implemented security policies aligned with industry best practices.
- Demonstrated Cloud Security Expertise – Hands-on experience securing web applications in AWS.

This experience showcases real-world expertise in securing cloud-hosted

applications, proving my ability to design, deploy, and manage security controls in AWS.