Assignment 3

Serverless/Event-driven Architecture Design

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Team Members:

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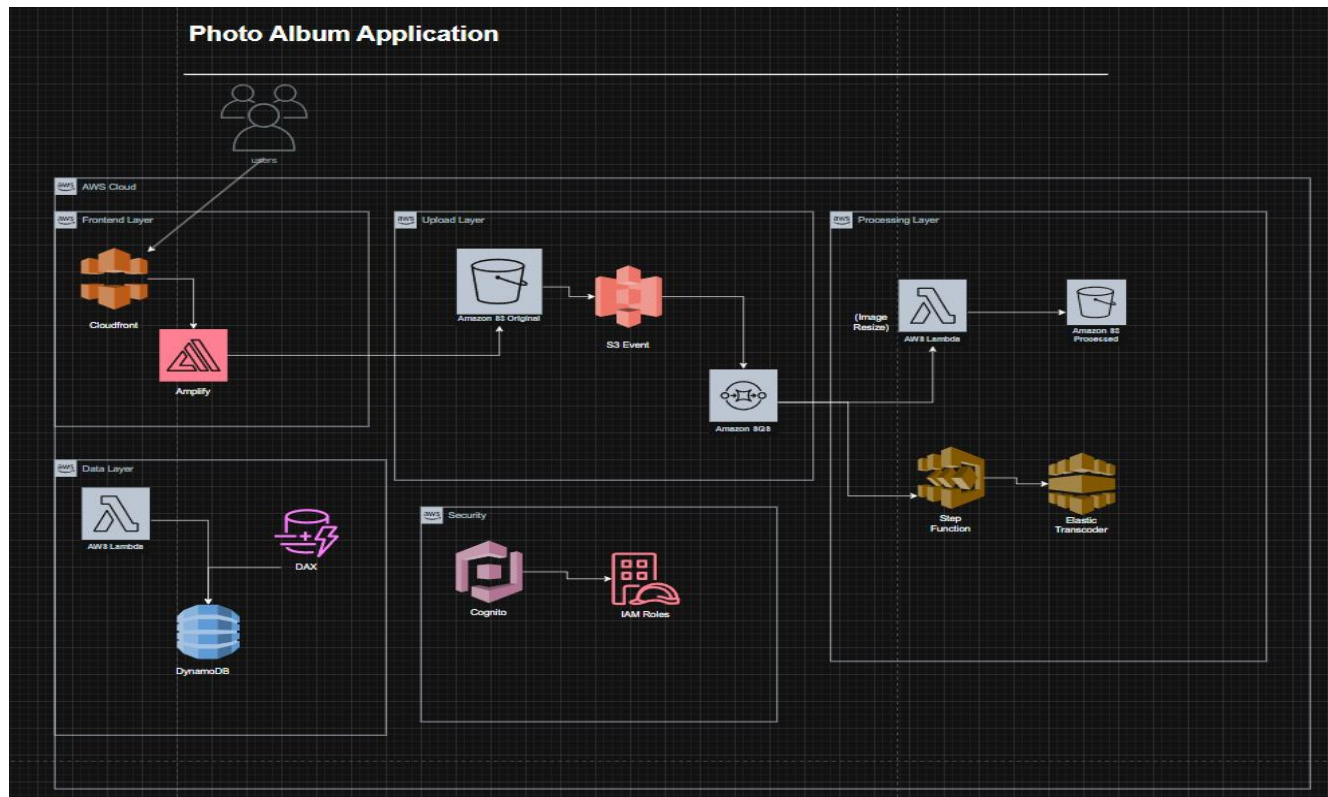# Introduction

Enhanced Photo Album:

- Serverless/event-driven.
- Handle many business needs.
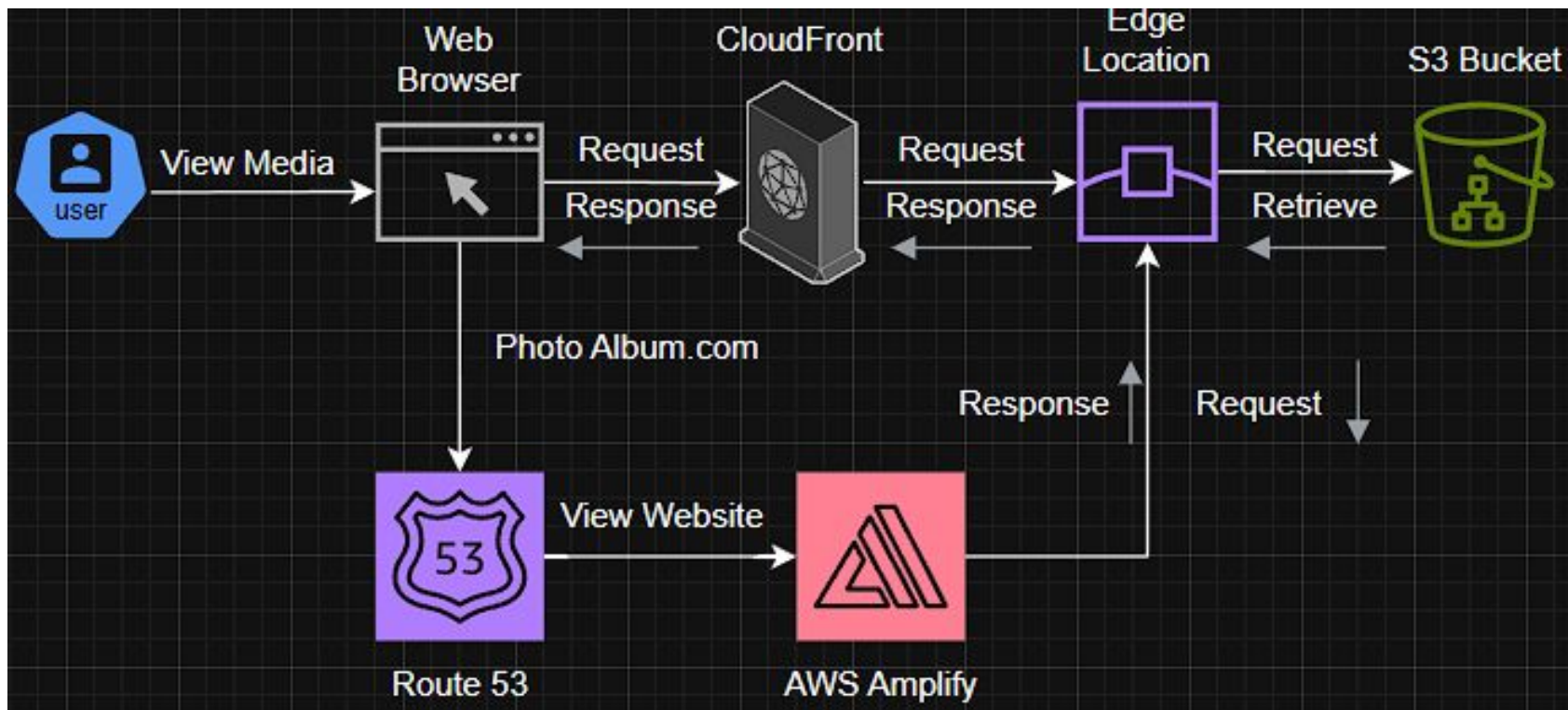- Architecture description & justification.

Business Scenario

Requirements:

- Scaling.

- Serverless / event-driven.

- Handle media.
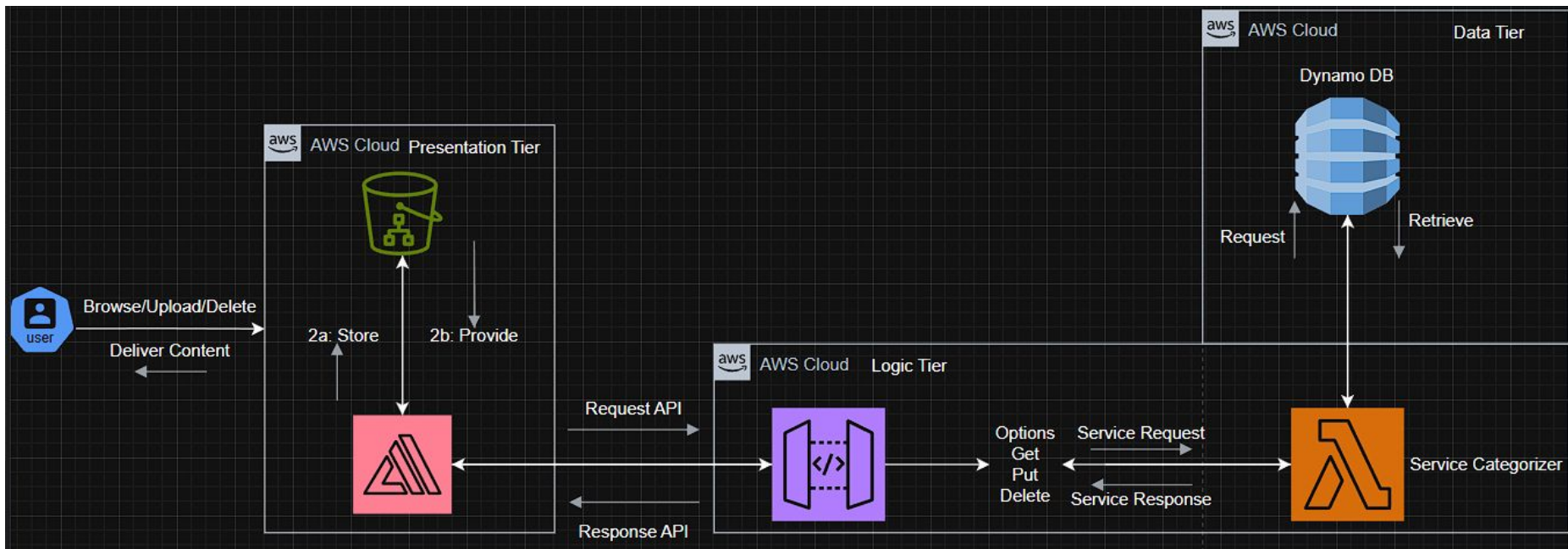
- Enhanced response time.

- Extensions with AI / ML.

Architecture Overview

Content Delivery Network System (CDN)

Serverless 3 tier Architecture

Design reason

Alternatives:

- VPC and Serverless 3 tier Architecture.
- DynamoDB and Relational Database.

Reliability:

- CloudFront.
- Route 53.
- DynamoDB.
- API Gateway.

Security:

- API Gateway.
- S3 Buckets.

Performance & Scalability:

- CloudFront.
- Route 53.
- DynamoDB.

Services and Justification

Lambda	Automatic scaling
API Gateway	Serverless backend-frontend communication
Dynamo DB	Serverless and scalable; more cost effective
S3	Media storage
Cloudfront	Improved global response time
Fargate	Processing heavy loading (video handling)

Conclusion & Questions