Project Documentation:

Serverless REST API with DynamoDB and API Gateway

1. *Project Description*: Develop a serverless REST API using Amazon API Gateway, AWS Lambda, and Amazon DynamoDB to manage a simple to-do list or customer records. The API allows users to create, read, update, and delete (CRUD) data without managing servers.

2. *Key AWS Services Used*:

- **Amazon API Gateway:** Exposes REST endpoints to handle client requests.

- **AWS Lambda:** Handles API requests and performs CRUD operations.

- **Amazon DynamoDB:** NoSQL database for storing and retrieving records.

- **AWS IAM:** Manages access control via roles and permissions.

- **Amazon CloudWatch:** Logs and monitors API activity for debugging and performance insights.

3. *Major Benefits*:

- **Scalability:** Automatically scales based on incoming traffic.

- **Event-Driven Architecture:** API Gateway triggers Lambda functions only when needed, reducing costs.

- **Cost-Effectiveness:** Pay only for usage with no need for managing infrastructure.

- **High Availability:** Managed AWS services ensure resilience and uptime.

- **Security:** AWS IAM provides fine-grained access control.

- **Logging & Monitoring:** CloudWatch enables tracking and debugging API activity effectively.

AWS Cloud

Region

Client

REST
HTTPS

Inovke

Role
Attachment

Query

logs

Amazon
DynamoDB