

## README - Serverless Math Web Application

This is a serverless web application using AWS services to perform exponentiation.

### Features:

- Serverless architecture with AWS Lambda.
- Results stored in DynamoDB.
- Hosted via Amplify.
- API managed by API Gateway.

### Prerequisites:

- AWS Account and CLI.
- Basic AWS knowledge.

### Setup Instructions:

1. Clone the repo and enter directory.

2. Amplify Deployment:

- amplify init
- amplify add hosting
- amplify publish

3. Lambda Function:

- Create Lambda function and paste code.

#### 4. API Gateway:

- Create REST API.
- Add POST method.
- Enable CORS.

#### 5. DynamoDB:

- Create table MathResults.
- Allow Lambda access.

#### 6. IAM:

- Attach write policy to Lambda role.

#### 7. Update index.html with API URL.

#### Usage:

- Open Amplify-hosted app.
- Input base and exponent.
- Submit to see result.

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