

## AWS API GATEWAY:

### Login to AWS Console

- Go to <https://aws.amazon.com/console/> and sign in.

### 2 Open Amazon API Gateway

- Search for **API Gateway** in the AWS Console and open it.

### 3 Click “Create API”

### 4 Choose API Type

- Select the API type you need:
  - **HTTP API** (simpler, low-cost).
  - **REST API** (more features like usage plans, API keys).
  - **WebSocket API** (real-time communication).

### 5 Configure API Details

- **API Name:** Enter a name.
- **Description:** Optional.
- **Endpoint Type:** (for REST API):
  - **Regional** (default).
  - **Edge-optimized** (global clients).
  - **Private** (inside your VPC).

### 6 Create Routes or Resources

- For **HTTP APIs**:
  - Define routes like /users, /orders.
  - Assign HTTP methods (GET, POST, etc.).
- For **REST APIs**:
  - Define resources and methods.

## 7 Set Integration Target

- Link your API to a backend:
  - **AWS Lambda function**
  - **HTTP endpoint**
  - **AWS service (like SQS, SNS, etc.)**

## 8 Configure Authorization (Optional)

- You can protect your API using:
  - **IAM roles**
  - **Cognito user pools**
  - **Lambda authorizers**

## 9 Deploy the API

- **Create a stage** (e.g., dev, test, prod).
- Deploy your API to the selected stage.
- This generates a **public invoke URL** for your API.

## 10 Test the API

- Use **Postman**, **browser**, or **CLI** to send HTTP requests and validate responses using your API's endpoint URL.

The screenshot shows the 'Configure API' step in the AWS Management Console. The left sidebar indicates the current step is 'Configure API' (Step 1), with other steps being optional. The main content area is titled 'Configure API' and contains the following sections:

- API details**
  - API name:** A text input field containing 'http'. A note states: 'An HTTP API must have a name. The name is a non-unique value you use to identify and organize your APIs. To programmatically refer to this API, use the API ID that API Gateway generates for you.'
  - IP address type:** A section with an 'Info' link. It asks to 'Select the type of IP addresses that can invoke the default endpoint for your API. You don't need to redeploy your API for the update to take effect.' There are two radio buttons: 'IPv4' (selected) and 'Dualstack'. Descriptions: 'IPv4' includes only IPv4 addresses; 'Dualstack' includes IPv4 and IPv6 addresses.
  - Integrations (0):** A section with an 'Info' link. It asks to 'Specify the backend services that your API will communicate with. These are called integrations. For a Lambda integration, API Gateway invokes the Lambda function and responds with the response from the function. For an HTTP integration, API Gateway sends the request to the URL that you specify and returns the response from the URL.'

The screenshot shows the 'Review and create' step in the AWS Management Console. The left sidebar indicates the current step is 'Review and create' (Step 4). The main content area shows the configuration details from the previous step, with the 'Integrations' section now populated with one integration:

- Integrations (1):** A section with an 'Info' link. It contains a dropdown menu showing 'Lambda'. Below this, there are three fields: 'AWS Region' (set to 'us-east-1'), 'Lambda function' (set to 'arn:aws:lambda:us-east-1:211125448409:function:l'), and 'Version' (set to '2.0'). There is a 'Learn more' link next to the version field. A 'Remove' button is located to the right of the integration entry. At the bottom, there is an 'Add integration' button.

API Gateway

APIs

Custom domain names

Domain name access associations

VPC links

API: http(zd01ozkl4j)

Develop

Routes

Authorization

Integrations

CORS

Reimport

Successfully created route ANY /stage1.

Routes

Stage: -

Deploy

Routes for http

Create

Search

/stage1

ANY

Route details

Delete

Edit

ANY /stage1 (ID: sd6wzot)

ARN

arn:aws:apigateway:us-east-1::apis/zd01ozkl4j/routes/sd6wzot

Authorization

Authorizers protect your API against unauthorized requests. Routes with no authorization attached are open.

No authorizer attached to this route.

Attach authorization

Integration

The integration is the backend resource that this route calls when it receives a request.

API Gateway

APIs

Custom domain names

Domain name access associations

VPC links

API: http(zd01ozkl4j)

Develop

Routes

Authorization

Integrations

CORS

Reimport

Integrations

Attach integrations to routes

Manage integrations

Integrations for http

Create

Search

helloworld (g5sfgp8)

Integration details

Delete

Edit

helloworld

Lambda function

helloworld (us-east-1)

Integration ID

g5sfgp8

Description

-

Payload format version

The parsing algorithm for the payload sent to and returned from your Lambda function. [Learn more](#)

2.0 (interpreted response format)

Invoke permissions

The resource policy of the Lambda function determines if API Gateway can invoke it. You can run the AWS CLI command snippet below to give API Gateway permission to invoke your AWS Lambda function.