

Screenshot of the Amazon DynamoDB console homepage:

The page displays the following content:

- DynamoDB** sidebar menu: Dashboard, Tables, Explore items, PartiQL editor, Backups, Exports to S3, Imports from S3, Integrations, Reserved capacity, Settings.
- DAX** sidebar menu: Clusters, Subnet groups, Parameter groups, Events.
- Share your feedback on Amazon DynamoDB**: A blue banner at the top asking for user feedback.
- Amazon DynamoDB**: The main heading, followed by the subtext "A fast and flexible NoSQL database service for any scale".
- Database**: A small thumbnail image showing a database icon.
- Get started**: A call-to-action button to "Create a new table to start exploring DynamoDB." with a "Create table" button.
- Pricing**: Information about DynamoDB charges for reading, writing, and storing data.
- How it works**: A section with a screenshot of a browser displaying the "What is Amazon DynamoDB? | Amazon Web Ser..." page.
- CloudShell Feedback**: A header bar with account information (Account ID: 7349-7944-9836, AWSLabsUser-aWaDibvsLfu9CLF4qmeJ/M/98ea6b7...), language (ENG IN), and date (08/02).

Screenshot of the "Create table" step in the wizard:

The page displays the following steps:

- Create table**
- Table details** Info

The "Table details" step includes the following fields:

- Table name**: rental_app
- Partition key**: record_type (String type)
- Sort key - optional**: id (String type)

Below the form, there is a note: "1 to 255 characters and case sensitive."

CloudShell Feedback header bar at the top of the page.

The rental_app table was created successfully.

Tables (1) Info

Name	Status	Partition key	Sort key	Indexes	Replication Regions	Deletion protection	Favorite	Read capacity mode
rental_app	Active	record_type (\$)	id (\$)	0	0	Off		On-demand

Create function Info

Choose one of the following options to create your function.

Author from scratch
Start with a simple Hello World example.

Use a blueprint
Build a Lambda application from sample code and configuration presets for common use cases.

Container image
Select a container image to deploy for your function.

Basic information

Function name
Enter a name that describes the purpose of your function.

Function name must be 1 to 64 characters, must be unique to the Region, and can't include spaces. Valid characters are a-z, A-Z, 0-9, hyphens (-), and underscores (_).

Runtime Info
Choose the language to use for writing your function. Note that the console code editor supports only Node.js, Python, and Ruby.

Architecture Info
Choose the instruction set architecture you want for your function code.
 arm64
 x86_64

Permissions Info
By default, Lambda will create an execution role with permissions to upload logs to Amazon CloudWatch Logs. You can customize this default role later when adding triggers.

The screenshot shows two consecutive screenshots of the AWS Lambda console interface.

Screenshot 1: Function Overview

- Header:** Step by step addition, LinkedIn, Thank you for Applying to, AWS Skill Builder, Cloud Quest, JaswanthFunction | Functions.
- Breadcrumbs:** Lambda > Functions > JaswanthFunction
- Message:** Successfully created the function JaswanthFunction. You can now change its code and configuration. To invoke your function with a test event, choose "Test".
- Function Overview:** JaswanthFunction (Diagram, Template). Layers (0). + Add trigger, + Add destination.
- Description:** Last modified 2 seconds ago. Function ARN arn:aws:lambda:us-east-1:734979449836:function:JaswanthFunction. Function URL.
- Actions:** Throttle, Copy ARN, Actions.

Screenshot 2: Code Source

- Header:** Step by step addition, LinkedIn, Thank you for Applying to, AWS Skill Builder, Cloud Quest, JaswanthFunction | Functions.
- Breadcrumbs:** Lambda > Functions > JaswanthFunction
- Message:** Successfully updated the function JaswanthFunction.
- Code Source:** lambda_function.py (Info, Open in Visual Studio Code, Upload from).
 - EXPLORER:** JASWANTHFUNCTION (lambda_function.py).
 - DEPLOY:** Deploy (Ctrl+Shift+U), Test (Ctrl+Shift+I).
 - TEST EVENTS (NONE SELECTED):** Create new test event.
- Code Editor:** The code in lambda_function.py is as follows:

```
1 import json
2 import os
3 import boto3
4 import uuid
5 import datetime
6
7 # Initialize DynamoDB client
8 # Boto3 - DynamoDB - https://boto3.amazonaws.com/v1/documentation/api/latest/reference/services/dynamodb.html
9 dynamodb = boto3.resource('dynamodb')
10 table = dynamodb.Table(os.environ['TABLE_NAME'])
11
12 def lambda_handler(event, context):
13     """
14     Lambda handler for processing API Gateway requests
15     """
16     http_method = event['httpMethod']
17     path = event['path']
18
19     # Route the request based on path and method
20     if path == '/vehicles':
21         # Handle vehicle requests
22         pass
23
24     else:
25         # Handle other requests
26         pass
```

Screenshot of the AWS Lambda 'Edit environment variables' configuration page.

The URL is: us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/JaswanthFunction/edit/environment-variables?subtab=envVars&tab=configure

The page shows one environment variable:

Key	Value
TABLE_NAME	rental_app

Buttons at the bottom: Cancel and Save.

Screenshot of the AWS Lambda function configuration page for 'JaswanthFunction'.

The URL is: us-east-1.console.aws.amazon.com/lambda/home?region=us-east-1#/functions/JaswanthFunction?newFunction=true&subtab=envVars&tab=configure

The 'Configuration' tab is selected. The 'Environment variables' section shows:

Environment variables (1)	
Key	Value
TABLE_NAME	rental_app

A green success message at the top: "Successfully updated the function JaswanthFunction."

Left sidebar navigation includes: Code, Test, Monitor, Configuration (selected), Aliases, Versions, General configuration, Triggers, Permissions, Destinations, Function URL, Environment variables (selected), Tags, VPC, RDS databases, Monitoring and operations tools.

Bottom navigation bar: CloudShell, Feedback, Search, and system status.

Screenshot of the AWS Lambda console showing the function configuration and test events.

Function Configuration:

- EXPLORER:** Shows `lambda_function.py` with code for `update_location`, `list_locations`, `create_location`, `create_vehicle`, and `update_location`.
- TEST EVENTS (SELECTED: CREATE_LOCATION):**
 - + Create new test event
 - Private saved events
 - create_location
- ENVIRONMENT VARIABLES:** Shows Lambda Deployed.

Test Events Configuration:

- Create new test event:** Event name: `create_location`
- Event type:** Synchronous (selected)
- Invocation type:** Synchronous (selected)
 - Executes the Lambda function and blocks until receiving the function's response, with a maximum timeout of 15 minutes. Returns function output or error details directly to the calling application.
- Asynchronous:** Enqueues the Lambda function for execution and returns immediately with a request ID. Function processes independently, with results optionally sent to a configured destination like SQS, SNS, or EventBridge.
- Event sharing settings:**
 - Private: This event is only available in the Lambda Console and to the event creator. You can configure a total of ten.
 - Shareable: This event is available to IAM users within the same account who have permissions to access and use shareable events. Learn more
- Template - optional:** `create_location`
- Event JSON:**

```

1 {
2   "httpMethod": "POST",
3   "path": "/locations",
4   "body": "{\"name\":\"Visitor entrance\",\"available\":true}"
5 }
```

Execution Results:

Status: Succeeded
 Test Event Name: `create_location`
 Response:

```

{
  "statusCode": 201,
  "body": "{\"id\": \"bd0f339-3\", \"record_type\": \"location\", \"createdAt\": \"2025-11-25T13:35:36.908242\", \"name\": \"Visitor entrance\", \"vehicles_available\": 3}"
}
```

 The area below shows the last 4 KB of the execution log.

Function Logs:

```

START RequestId: 1e3aeacf-7c4c-4300-9616-de6fc98cd25c Version: $LATEST
END RequestId: 1e3aeacf-7c4c-4300-9616-de6fc98cd25c
REPORT RequestId: 1e3aeacf-7c4c-4300-9616-de6fc98cd25c Duration: 313.18 ms Billed Duration: 796 ms Memory Size: 128 MB Max Memory Used: 89 MB
Init Duration: 482.31 ms
Request ID: 1e3aeacf-7c4c-4300-9616-de6fc98cd25c

```

Screenshot of the AWS CloudShell interface showing the creation of a REST API via the API Gateway.

The browser tabs include:

- Step by step addition
- Feed | LinkedIn
- Thank you for Applying to ...
- AWS Skill Builder
- Cloud Quest
- Items | Amazon DynamoDB
- us-east-1.console.aws.amazon.com/dynamodbv2/home?region=us-east-1#item-explorer?maximize=true&table=rental_app
- aws | Search [Alt+S]
- DynamoDB > Explore items > rental_app
- CloudShell Feedback
- API Gateway - Create REST
- us-east-1.console.aws.amazon.com/apigateway/main/create-rest?experience=rest®ion=us-east-1

The AWS Labs User account ID is 7349-7944-9836.

DynamoDB - Explore items

Table: rental_app - Items returned (1)

Scan started on November 25, 2025, 08:38:04

record_type (String)	id (String)	createdAt	name	vehicles_available
location	b0d1f339-3	2025-11-2...	Visitor entr...	3

Create REST API

API details

- New API Create a new REST API.
- Clone existing API Create a copy of an API in this AWS account.
- Import API Import an API from an OpenAPI definition.
- Example API Learn about API Gateway with an example API.

API name: rental_app

Description - optional: (Empty text area)

API endpoint type: Regional APIs are deployed in the current AWS Region. Edge-optimized APIs route requests to the nearest CloudFront Point of Presence. Private APIs are only accessible from VPCs.

Regional

Security policy - new | Info: Transport Layer Security (TLS) protects data in transit between a client and server. The security policy also determines the cipher suite options that clients can use with your API.

Screenshot of the AWS API Gateway Resources page showing a successful REST API creation.

API Gateway - Resources

Successfully created REST API 'rental_app' (e70elwuila).

Resources

Resource details

- Path: /
- Resource ID: 3cks7t36kl

Methods (0)

No methods defined.

Create method

Method details

Method type: GET

Integration type:

- Lambda function** (selected): Integrate your API with a Lambda function. (Icon: Lambda)
- HTTP**: Integrate with an existing HTTP endpoint. (Icon: HTTP)
- Mock**: Generate a response based on API Gateway mappings and transformations. (Icon: Mock)
- AWS service**: Integrate with an AWS Service. (Icon: AWS)
- VPC link**: Integrate with a resource that isn't accessible over the public internet. (Icon: VPC)

Response transfer mode: Info

Buffered

The screenshot shows two consecutive screenshots of the AWS API Gateway console, illustrating the creation and testing of a GET method for a '/locations' resource.

Screenshot 1: Method Execution Flow

This screenshot displays the execution flow for the '/locations - GET' method. The flow is as follows:

```

graph LR
    Client[Client] --> MethodRequest[Method request]
    MethodRequest --> IntegrationRequest[Integration request]
    IntegrationRequest --> Lambda[Lambda integration]
    Lambda --> IntegrationResponse[Integration response]
    IntegrationResponse --> MethodResponse[Method response]
    MethodResponse --> Client
    
```

Screenshot 2: Method Request Settings and Test Results

This screenshot shows the 'Method request settings' and the results of a recent test.

Method Request Settings:

- Headers:** Content-Type:application/json
- Client certificate:** No client certificates have been generated.

Test Results:

Request	Latency ms	Status
/locations	1025	200

Response body:

```

[{"created_at": "2025-11-25T13:35:36.908Z", "vehicles_available": "3", "name": "Visitor entrance", "record_type": "location", "id": "b0d1f339-3"}]

```

Response headers:

```

{
  "X-Amzn-Trace-Id": "Root=1-6925b6c3-62c8f7e510ebf53e3ae175ba;Parent=11410792ef8e0d62;Sampled=0;Lineage=1:b2a569a8:0"
}

```

The screenshot shows the AWS API Gateway console interface. A modal window titled "Create method" is open, indicating that a "Successfully created method 'GET' in 'locations'". The "Method details" section shows "Method type: POST" and "Integration type: Lambda proxy integration". The Lambda proxy integration option is selected, showing a description: "Send the request to your Lambda function as a structured event." Below this, the Lambda icon is highlighted.

On the left sidebar, under "API: rental_app", the "Resources" section is expanded, showing the "Locations" resource with "GET" and "POST" methods. The "POST" method is currently selected. The main panel displays the "Resources" section for the "/locations - POST - Method execution". It shows the ARN: arn:aws:execute-api:us-east-1:734979449836:e70elwuila/*/POST/locations, Resource ID: aui9ue, and a flow diagram illustrating the request-response process:

```

graph LR
    Client[Client] --> MethodRequest[Method request]
    MethodRequest --> IntegrationRequest[Integration request]
    IntegrationRequest --> IntegrationResponse[Integration response  
Proxy integration]
    IntegrationResponse --> Lambda[Lambda integration]
    Lambda --> MethodResponse[Method response]
    MethodResponse --> Client

```

The "Method request" tab is selected in the navigation bar at the bottom of the main panel.

The screenshot shows two side-by-side browser windows displaying the AWS API Gateway console.

Top Window:

- Left Sidebar:** Shows the API Gateway navigation bar with 'APIs', 'Custom domain names', 'Domain name access associations', 'VPC links', and the 'API: rental_app' section which includes 'Resources', 'Stages', 'Authorizers', 'Gateway responses', 'Models', 'Resource policy', 'Documentation', 'Dashboard', and 'API settings'.
- Center Content:** Displays the 'Test method' interface for a POST request to the '/locations' endpoint. The 'Method request' tab is selected. The 'Query strings' field contains 'param1=value1¶m2=value2'. The 'Headers' field contains 'Content-Type:application/json'. The 'Client certificate' section is empty. The 'Request body' field contains the following JSON:


```
1 * {
2   "name": "Viper roller coaster",
3   "vehicles_available": "5"
4 }
```
- Bottom Status Bar:** Shows the AWS CloudShell icon, feedback link, account ID (7349-7944-9836), and session details (AWSLabsUser-aWaDlBvsLflu9CLF4qmeJ/M/98ea6b7...).

Bottom Window:

- Left Sidebar:** Same as the top window.
- Center Content:** Displays the 'Test' results for the POST request to '/locations'. The results table shows:

Path	Latency ms	Status
/locations	1009	201

 Below the table, the 'Response body' and 'Response headers' sections are shown, along with a detailed 'Logs' section containing execution logs for the request.
- Bottom Status Bar:** Shows the AWS CloudShell icon, feedback link, account ID (7349-7944-9836), and session details (AWSLabsUser-aWaDlBvsLflu9CLF4qmeJ/M/98ea6b7...).

The screenshot displays two separate browser windows showing AWS management console interfaces.

Top Window (DynamoDB):

- Left Sidebar:** Shows navigation links for DynamoDB (Dashboard, Tables, Explore items, PartQL editor, Backups, Exports to S3, Imports from S3, Integrations, Reserved capacity, Settings), DAX (Clusters, Subnet groups, Parameter groups, Events).
- Main Content Area:**
 - Search bar: Find tables
 - Table selection dropdown: Table - rental_app
 - Attribute projection dropdown: All attributes
 - Filters section: rental_app
 - Run and Reset buttons
 - Status message: Completed - Items returned: 2 - Items scanned: 2 - Efficiency: 100% - RCU consumed: 2
 - Table view: rental_app - Items returned (2)

record_type (String)	id (String)	createdAt	name	vehicles_available
location	b0d1f339-3	2025-11-2...	Visitor entr...	3
location	e71c3586-9	2025-11-2...	Viper roller ...	5

Bottom Window (API Gateway):

- Left Sidebar:** Shows navigation links for API Gateway (APIs, Custom domain names, Domain name access associations, VPC links), API: rental_app (Resources, Stages, Authorizers, Gateway responses, Models, Resource policy, Documentation, Dashboard, API settings), Usage plans, API keys.
- Main Content Area:**
 - Success message: Successfully created deployment for rental_app. This deployment is active for test.
 - Stages:** test

Stage name	Info	Rate Info	Web ACL
test	Info	10000	-
Cache cluster	Info	Inactive	-
Burst	Info	5000	-
Default method-level caching	Info	Inactive	-
Invoke URL	Info	https://e70elwulia.execute-api.us-east-1.amazonaws.com/test	-
Active deployment	Info	09cq11 on November 25, 2025, 09:16 (UTC-05:00)	-
 - Logs and tracing:** Info

Screenshot of the AWS API Gateway Resources page showing the creation of a POST method for the '/vehicles' resource.

API Gateway - Resources

Successfully created method 'POST' in 'vehicles'. Redeploy your API for the update to take effect.

Resources

/vehicles - POST - Method execution

ARN: arn:aws:execute-api:us-east-1:734979449836:e70elwuila/*
Resource ID: hua266

Method request → **Integration request** → **Lambda integration**
Method response ← **Integration response** ← **Proxy integration**

Method request | **Integration request** | **Integration response** | **Method response** | **Test**

Test method
 Make a test call to your method. When you make a test call, API Gateway skips authorization and directly invokes your method.

Query strings: param1=value1¶m2=value2

Headers:
 Enter a header name and value separated by a colon (:). Use a new line for each header.
Content-Type:application/json

Client certificate: No client certificates have been generated.

Request body:

```

1 * {
2   "available": "False",
3   "type": "Rocket"
4 }
  
```

API Gateway - Resources

APIs
 Custom domain names
 Domain name access associations
 VPC links

API: rental_app

- Resources**
- Stages
- Authorizers
- Gateway responses
- Models
- Resource policy
- Documentation
- Dashboard
- API settings

Usage plans
 API keys

CloudShell Feedback

47°F Mostly cloudy

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Account ID: 7349-7944-9836
 AWSLabsUser-aWaDiBvsLfiu9CLF4qmeJ/M/98ea6b7...

United States (N. Virginia)

ENG IN 09:23 25-11-2025

Screenshot of the AWS API Gateway Resources page showing the configuration of a POST method for the '/vehicles' resource.

API Gateway - Resources

Test method
 Make a test call to your method. When you make a test call, API Gateway skips authorization and directly invokes your method.

Query strings: param1=value1¶m2=value2

Headers:
 Enter a header name and value separated by a colon (:). Use a new line for each header.
Content-Type:application/json

Client certificate: No client certificates have been generated.

Request body:

```

1 * {
2   "available": "False",
3   "type": "Rocket"
4 }
  
```

API Gateway - Resources

APIs
 Custom domain names
 Domain name access associations
 VPC links

API: rental_app

- Resources**
- Stages
- Authorizers
- Gateway responses
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- Resource policy
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- Dashboard
- API settings

Usage plans
 API keys

CloudShell Feedback

47°F Mostly cloudy

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Account ID: 7349-7944-9836
 AWSLabsUser-aWaDiBvsLfiu9CLF4qmeJ/M/98ea6b7...

United States (N. Virginia)

ENG IN 09:30 25-11-2025

The screenshot displays two browser windows side-by-side, both showing AWS services.

Top Window (API Gateway - Resources):

- Left Sidebar:** API Gateway, APIs, Custom domain names, Domain name access associations, VPC links, API: rental_app (Resources, Stages, Authorizers, Gateway responses, Models, Resource policy, Documentation, Dashboard, API settings), Usage plans, API keys.
- Center:** Create resource pane showing a tree structure: / (locations, GET, POST), /vehicles (POST).
- Right Panel:** /vehicles - POST method test results. Request: /vehicles, Latency ms: 1058, Status: 201. Response body: {"id": "196b4db0-d", "record_type": "vehicle", "createdAt": "2025-11-25T14:29:44.892346", "available": "False", "type": "Rocket"}. Response headers: {"X-Amzn-Trace-Id": "Root=1-6925bd58-76e66538c5d5bbfd67253ae;Parent=11257287eb9ed569;Sampled=0;Lineage=1:b2a569a8:0"}. Logs: Execution log for request 59b848cb-6903-480a-8a9e-e27b681beff5.

Bottom Window (Items | Amazon DynamoDB):

- Left Sidebar:** DynamoDB (Dashboard, Tables, Explore items, PartQL editor, Backups, Exports to S3, Imports from S3, Integrations, Reserved capacity, Settings), DAX (Clusters, Subnet groups, Parameter groups, Events).
- Center:** Explore items for rental_app table. Filters: optional. Run button. Completed message: Completed - Items returned: 3 - Items scanned: 3 - Efficiency: 100% - RCU's consumed: 2.
- Table View:** Table: rental_app - Items returned (3). Scan started on November 25, 2025, 09:31:25. Actions, Create item buttons. Table columns: record_type (String), available, createdAt, name, type, vehicle.