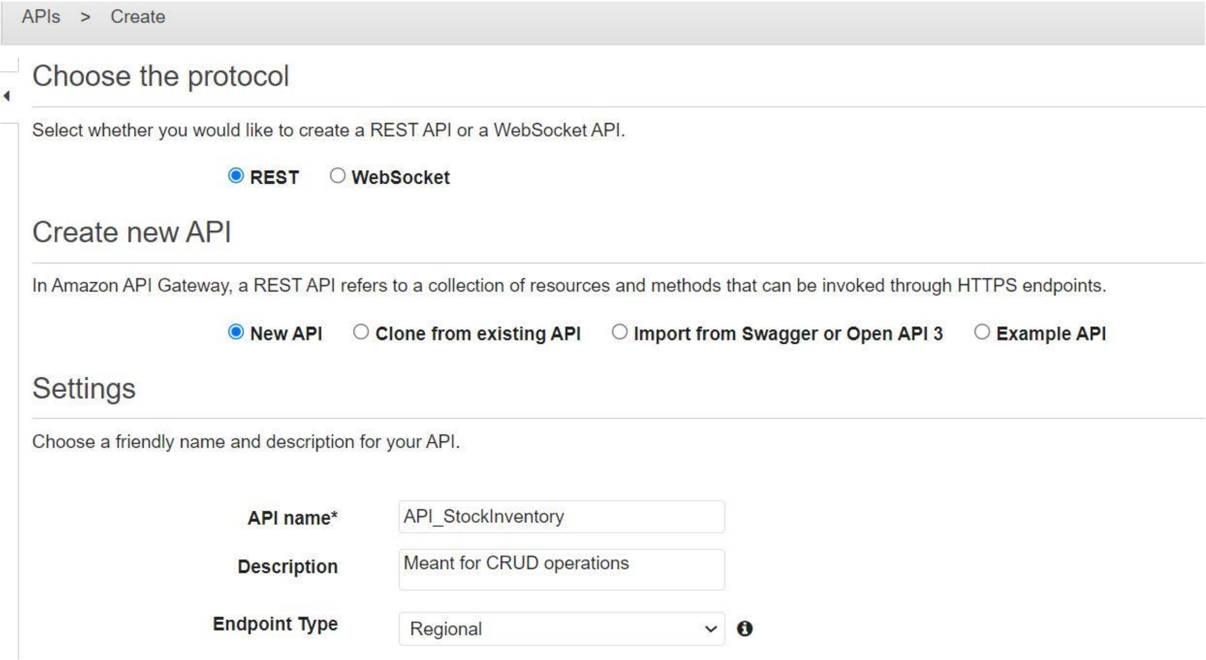
API gateway: Create an API gateway, choosing **'REST API'** as API type.



APIs > Create

Choose the protocol

Select whether you would like to create a REST API or a WebSocket API.

● REST ○ WebSocket

Create new API

In Amazon API Gateway, a REST API refers to a collection of resources and methods that can be invoked through HTTPS endpoints.

● New API ○ Clone from existing API ○ Import from Swagger or Open API 3 ○ Example API

Settings

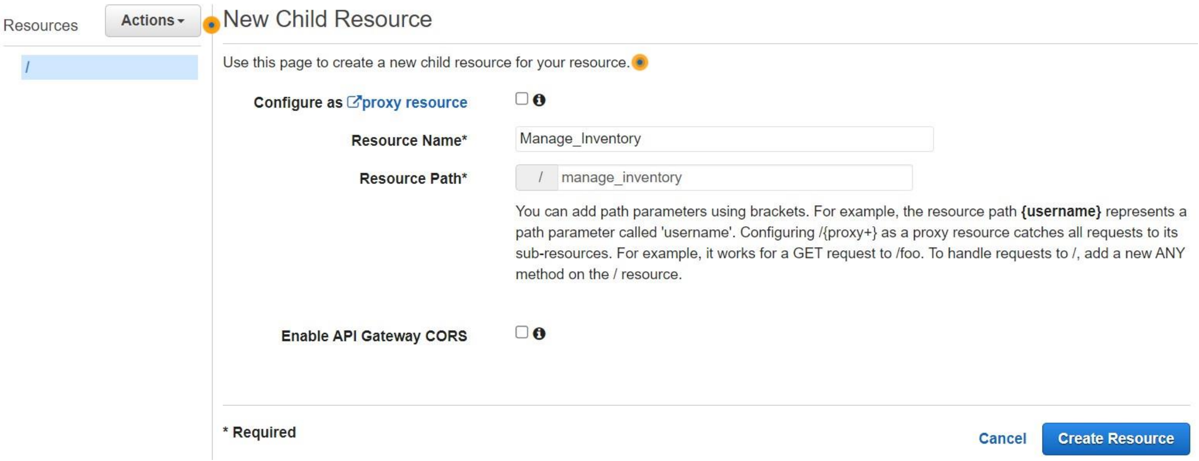
Choose a friendly name and description for your API.

API name*: API_StockInventory

Description: Meant for CRUD operations

Endpoint Type: Regional

- Now navigate to API we created. In 'Resources' tab under 'Actions' you can see options **'Create Resources'** to create child resource



New Child Resource

Use this page to create a new child resource for your resource.

Configure as proxy resource □

Resource Name*: Manage_Inventory

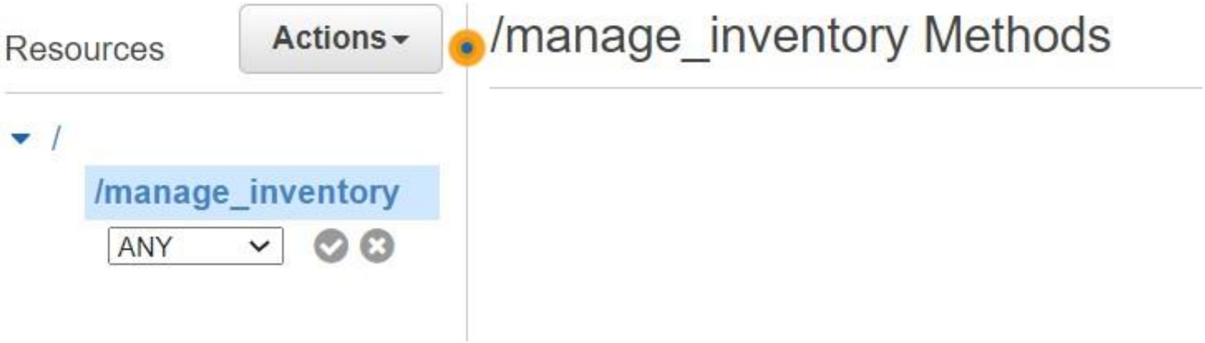
Resource Path*: / manage_inventory

You can add path parameters using brackets. For example, the resource path **{username}** represents a path parameter called 'username'. Configuring /{proxy+} as a proxy resource catches all requests to its sub-resources. For example, it works for a GET request to /foo. To handle requests to /, add a new ANY method on the / resource.

Enable API Gateway CORS □

* Required

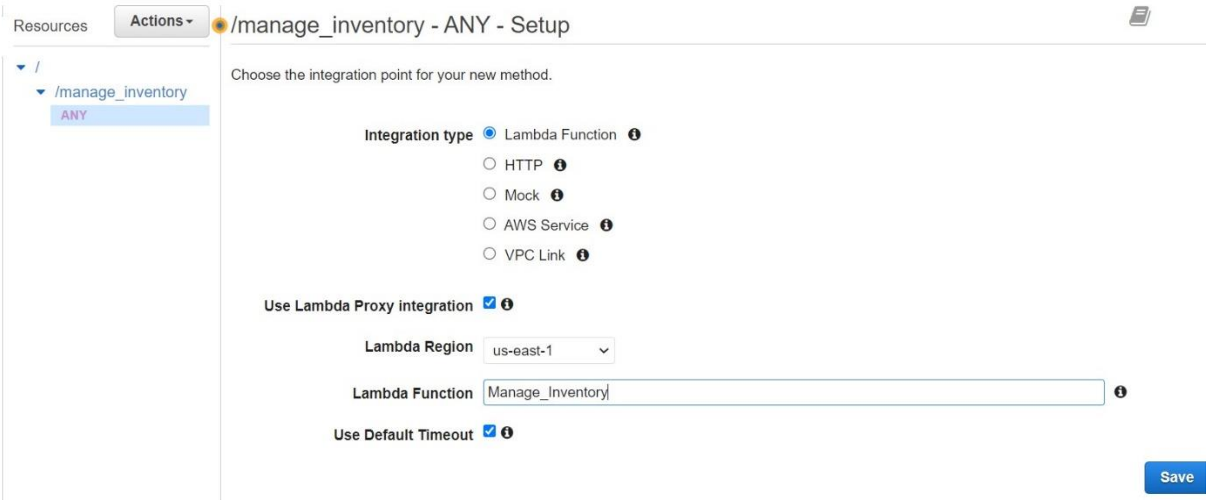
- Create a method 'ANY' under resource we created using option 'Action'.



/manage_inventory Methods

ANY

- Integrate the Lambda function with the method('ANY') we created as like below.



/manage_inventory - ANY - Setup

Choose the integration point for your new method.

Integration type ● Lambda Function ○ HTTP ○ Mock ○ AWS Service ○ VPC Link

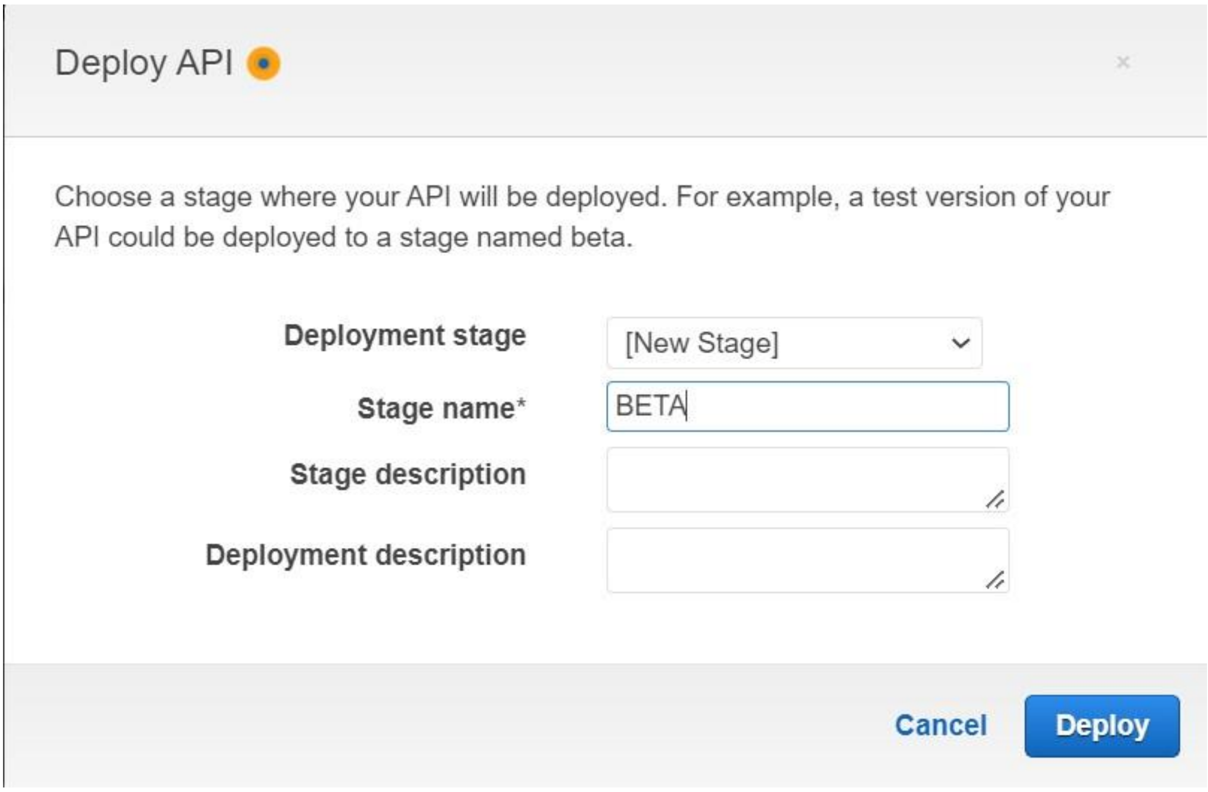
Use Lambda Proxy integration ☑

Lambda Region us-east-1

Lambda Function Manage_Inventory

Use Default Timeout ☑

- Deploy the API with the stage name say 'BETA', using option 'Action'.



Deploy API

Choose a stage where your API will be deployed. For example, a test version of your API could be deployed to a stage named beta.

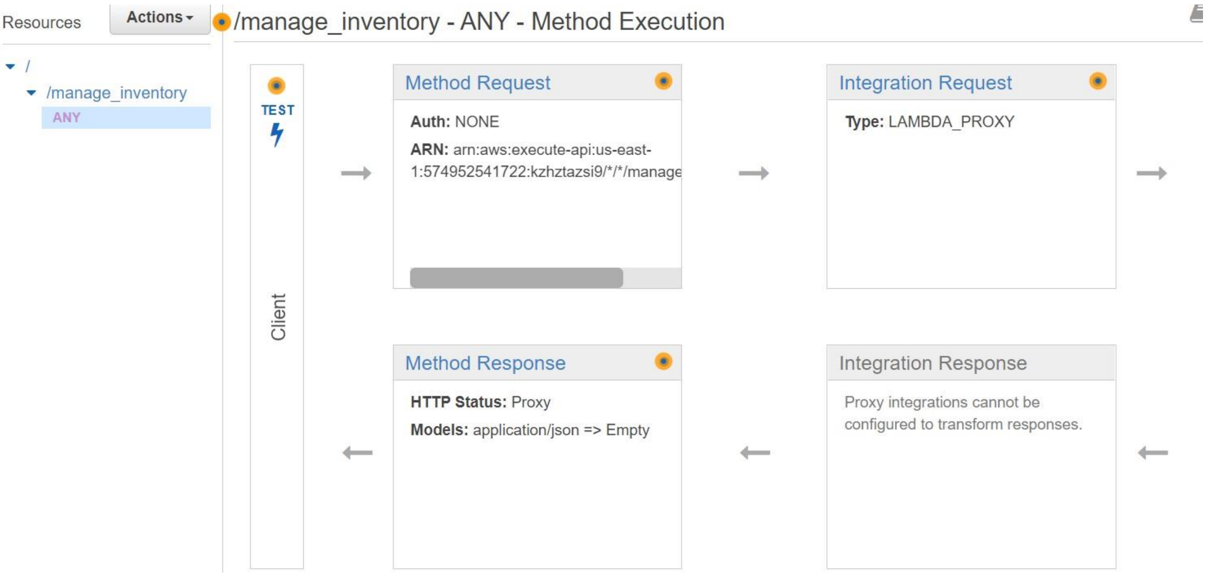
Deployment stage: [New Stage]

Stage name*: BETA

Stage description:

Deployment description:

- Now set API key authentication for the method we created. Navigate to method('ANY') we created.



/manage_inventory - ANY - Method Execution

Method Request

Auth: NONE

ARN: arn:aws:execute-api:us-east-1:574952541722:kzhztazsi9/*/*/manage

Integration Request

Type: LAMBDA_PROXY

Method Response

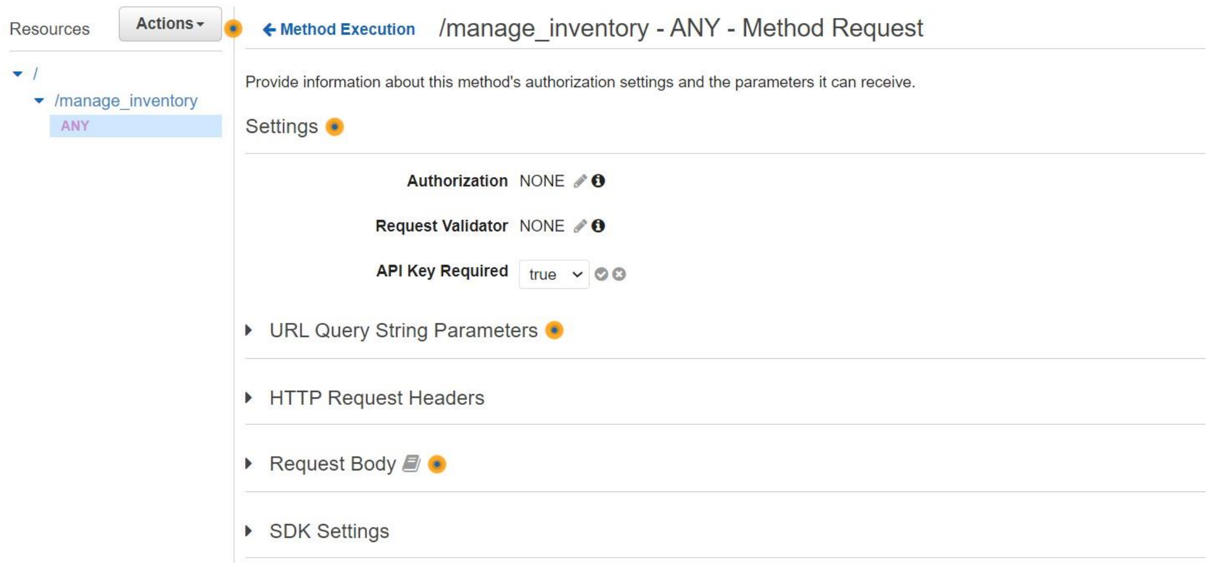
HTTP Status: Proxy

Models: application/json => Empty

Integration Response

Proxy integrations cannot be configured to transform responses.

- Click 'Method Request' option and set 'API Key Required' as 'true'.



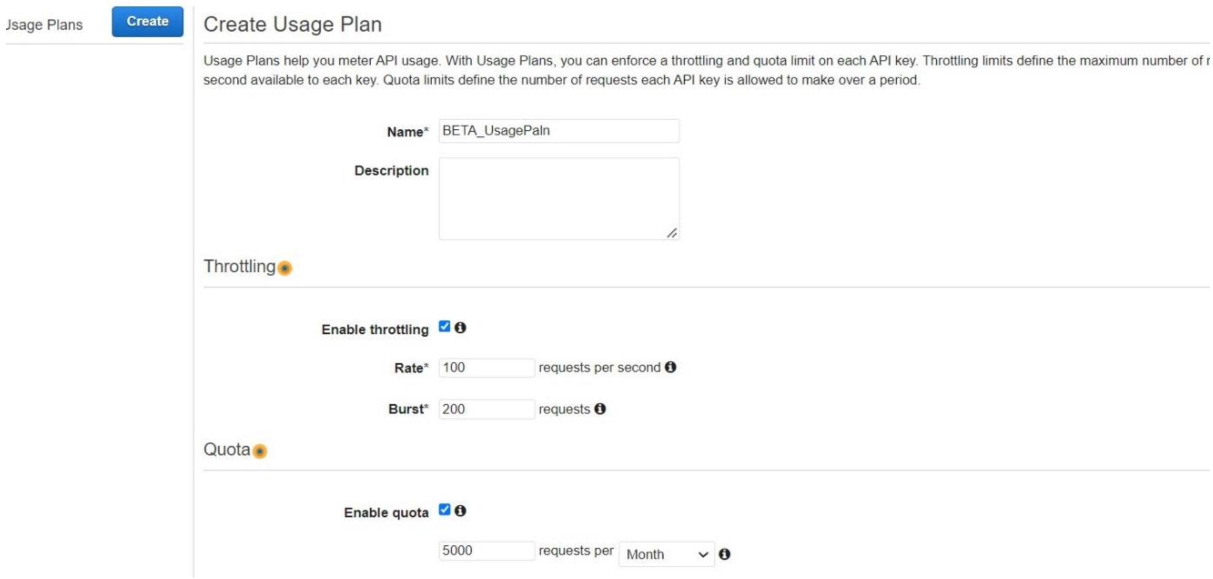
/manage_inventory - ANY - Method Request

Provide information about this method's authorization settings and the parameters it can receive.

Settings

Authorization	NONE
Request Validator	NONE
API Key Required	true

- Create a usage plan in 'Usage plan' tab as like below for setting quota limit to our API key.



Create Usage Plan

Usage Plans help you meter API usage. With Usage Plans, you can enforce a throttling and quota limit on each API key. Throttling limits define the maximum number of r second available to each key. Quota limits define the number of requests each API key is allowed to make over a period.

Name*	BETA_UsagePaln
Description	

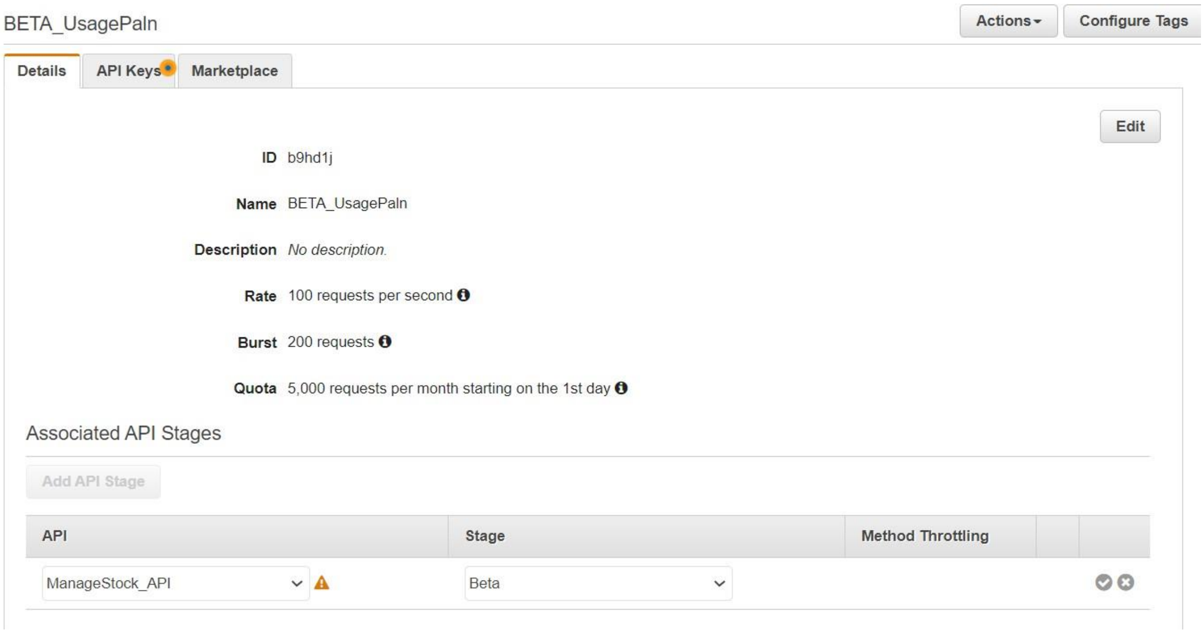
Throttling

Enable throttling	☑
Rate*	100 requests per second
Burst*	200 requests

Quota

Enable quota	☑
	5000 requests per Month

- Map our API with the usage plan created as like below.



BETA_UsagePaln

ID b9hd1j

Name BETA_UsagePaln

Description *No description.*

Rate 100 requests per second

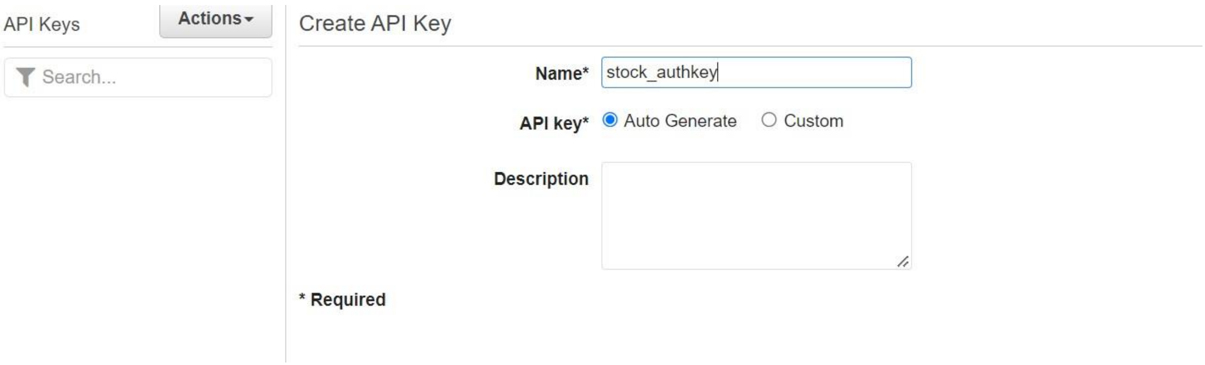
Burst 200 requests

Quota 5,000 requests per month starting on the 1st day

Associated API Stages

API	Stage	Method Throttling
ManageStock_API	Beta	

- Now create an API key in 'API keys' tab.



Create API Key

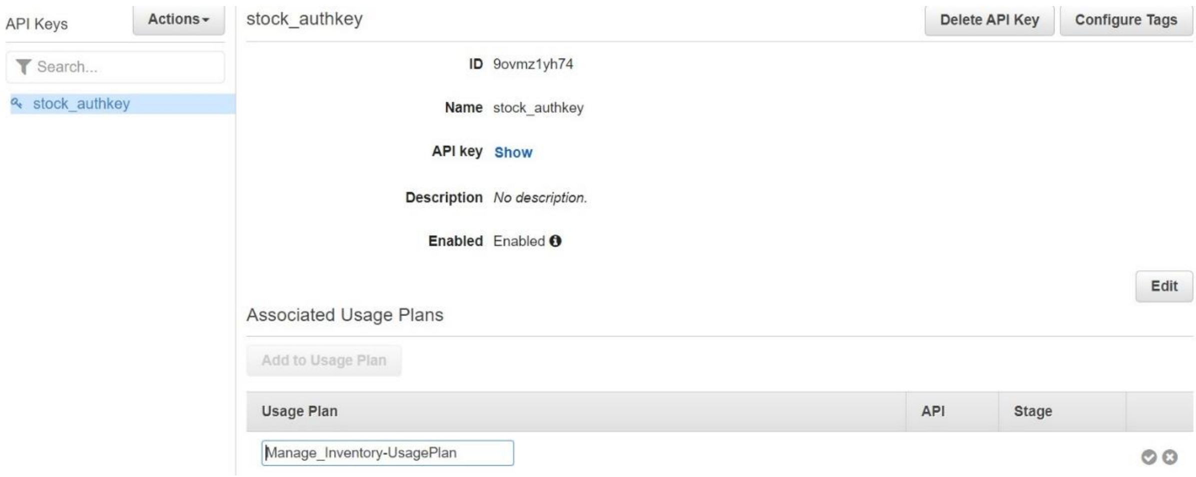
Name* stock_authkey

API key* ● Auto Generate ○ Custom

Description

* Required

- Map the Usage Plan we created with the API key as like below.



stock_authkey

ID 9ovmz1yh74

Name stock_authkey

API key Show

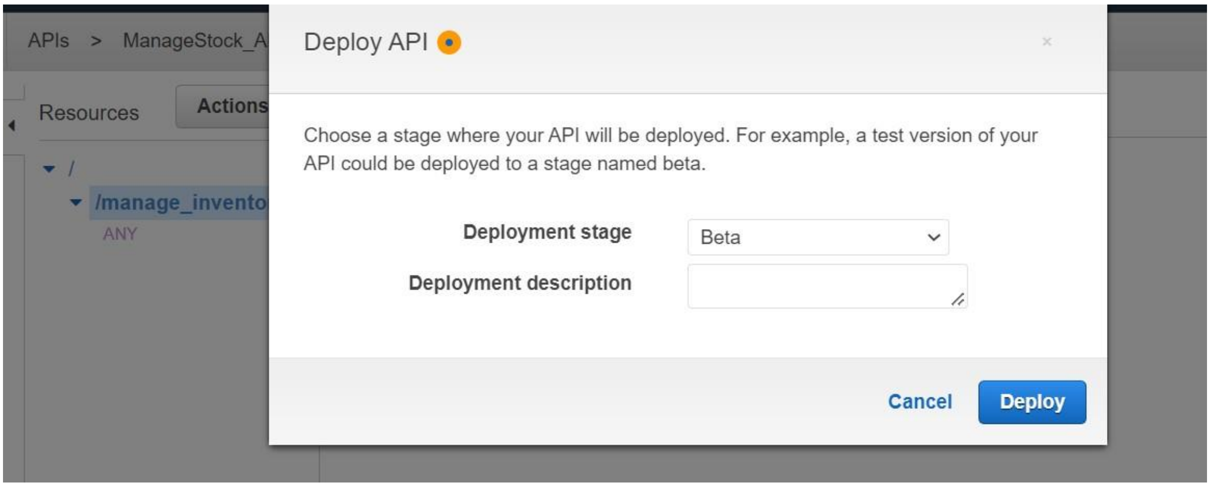
Description *No description.*

Enabled Enabled

Associated Usage Plans

Usage Plan	API	Stage
Manage_Inventory-UsagePlan		

- Redeploy the API to ensure the modifications done was made effective.



Deploy API

Choose a stage where your API will be deployed. For example, a test version of your API could be deployed to a stage named beta.

Deployment stage Beta

Deployment description