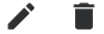# CLOUD FUNCTION OVERVIEW

7:54   **10. Cloud Functions**   98. Running Functions Locally

The commands related to creating Google Cloud Functions projects using .NET.

1. `dotnet new -i Google.Cloud.Functions.Templates`:
   - This command installs templates for Google Cloud Functions in your .NET environment.
   - The `-i` flag stands for "install" and specifies that you want to install a template.
   - `Google.Cloud.Functions.Templates` is the package name that contains the templates for Google Cloud Functions.

2. `dotnet new gcf-http`:
   - This command creates a new HTTP-triggered Google Cloud Functions project using .NET.
   - It generates the basic structure and files needed for a Cloud Functions project with an HTTP trigger.
   - The `gcf-http` argument specifies the template to use for creating the project.

So, running these two commands allows you to install the necessary templates for Google Cloud Functions and then create a new HTTP-triggered Cloud Functions project using .NET.
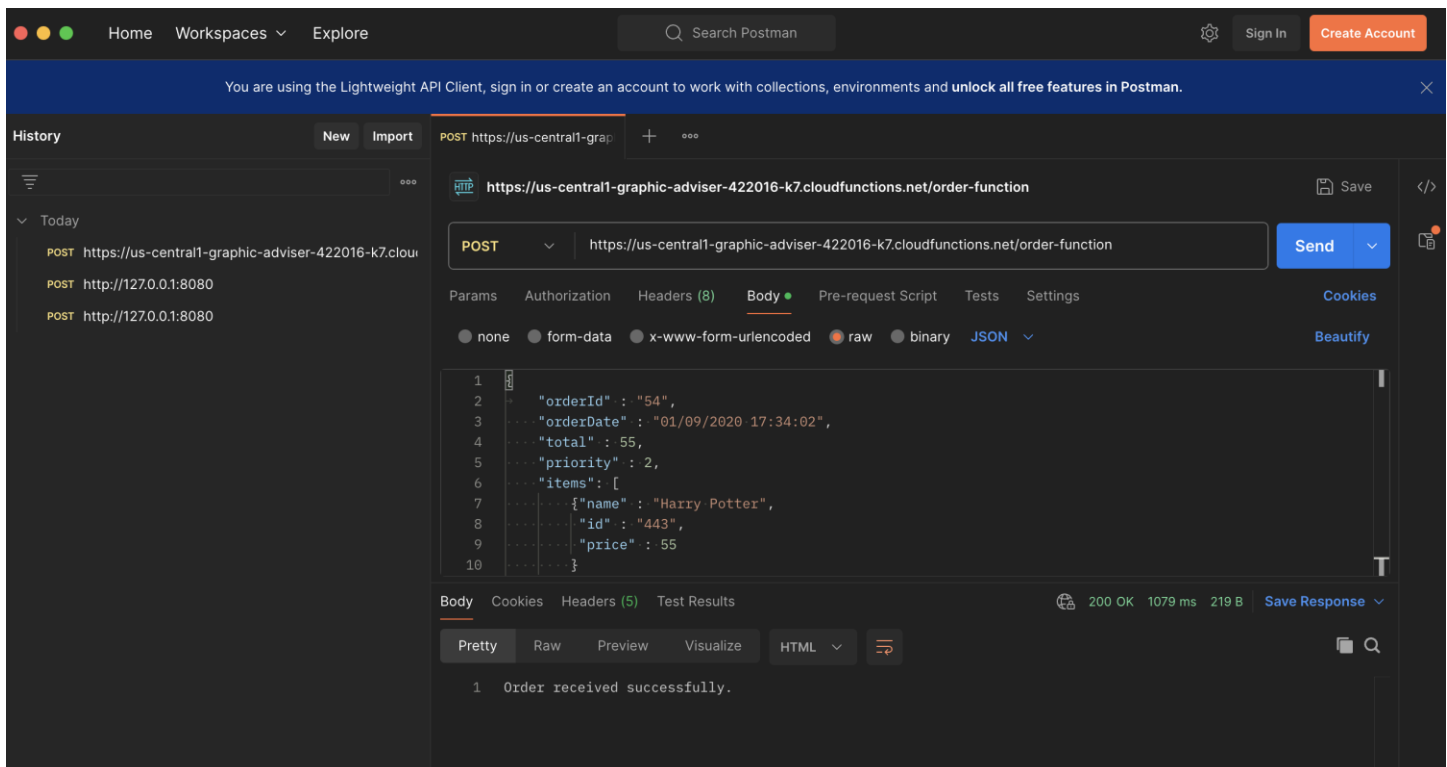
```
gcloud functions deploy order-function --gen2 --runtime=dotnet6 --region=us-
central1 --source=. --entry-point=order_function.Function --trigger-http --
allow-unauthenticated
```

This command deploys a Google Cloud Function named "order-function" using the .NET 6 runtime in the "us-central1" region. Here's a breakdown of the flags and parameters used:

- `gcloud functions deploy` : This is the command used to deploy a Google Cloud Function.
- `order-function` : This is the name of the Cloud Function being deployed.
- `--gen2` : Specifies that the function should use the second generation runtime.
- `--runtime=dotnet6` : Specifies the runtime for the function, in this case, .NET 6.
- `--region=us-central1` : Specifies the region where the function will be deployed, in this case, "us-central1".

- `--source=.` : Specifies the source directory containing the function's source code. Here, `.` refers to the current directory.
- `--entry-point=order_function.Function` : Specifies the entry point for the function within the source code. In this case, it's assuming the function is contained within a class named "order_function" with a method named "Function".
- `--trigger-http` : Specifies that the function should be triggered by HTTP requests.
- `--allow-unauthenticated` : Specifies that unauthenticated invocations are allowed. This means that the function can be invoked without requiring authentication or authorization.

Overall, this command deploys a .NET 6 Cloud Function named "order-function" in the "us-central1" region, triggered by HTTP requests, and allows unauthenticated access.

```
      object: order-function/function-source.zip
createTime: '2024-05-07T17:00:28.182115280Z'
environment: GEN_2
labels:
  deployment-tool: cli-gcloud
name: projects/graphic-adviser-422016-k7/locations/us-central1/functions/order-
function
serviceConfig:
  allTrafficOnLatestRevision: true
  availableCpu: '0.1666'
  availableMemory: 256M
  ingressSettings: ALLOW_ALL
  maxInstanceCount: 100
  maxInstanceRequestConcurrency: 1
  revision: order-function-00001-tul
  service: projects/graphic-adviser-422016-k7/locations/us-central1/services/or
der-function
  serviceAccountEmail: 1097944015704-compute@developer.gserviceaccount.com
  timeoutSeconds: 60
  uri: https://order-function-gfpbfsqx3a-uc.a.run.app
state: ACTIVE
updateTime: '2024-05-07T17:02:58.829722442Z'
url: https://us-central1-graphic-adviser-422016-k7.cloudfunctions.net/order-fun
ction
(base) rohankodavalla@Rohans-Air order-function %
```

PROBLEMS   OUTPUT   **TERMINAL**   PORTS   zsh

≡   **Google** Cloud   My First Project ▾   cloud func   ✕   🔍 Search

{···} Cloud Functions   ←   Function details   ✏ EDIT   🗑 DELETE   🗍 COPY

✔ **order-function** `2nd gen` (Deployed at May 7, 2024, 1:02:58 PM) URL: https://us-central1-graphic-adviser-422016-k7.cloudfunctions.net/order-function ↗ 🗍 ❓

METRICS   DETAILS   SOURCE   VARIABLES   TRIGGER   PERMISSIONS   **LOGS**   TESTING

Logs   Severity
       Default ▾   ≡ Filter Search all fields and values

SEVERITY	TIMESTAMP	SUMMARY
> ✱	2024-05-07 13:08:16.179 EDT	Order received: {
> ✱	2024-05-07 13:08:16.179 EDT	"orderId" : "54",
> ✱	2024-05-07 13:08:16.179 EDT	"orderDate" : "01/09/2020 17:34:02",
> ✱	2024-05-07 13:08:16.179 EDT	"total" : 55,
> ✱	2024-05-07 13:08:16.179 EDT	"priority" : 2,
> ✱	2024-05-07 13:08:16.179 EDT	"items": [
> ✱	2024-05-07 13:08:16.179 EDT	{"name" : "Harry Potter",
> ✱	2024-05-07 13:08:16.179 EDT	"id" : "443",
> ✱	2024-05-07 13:08:16.180 EDT	"price" : 55
> ✱	2024-05-07 13:08:16.180 EDT	}
> ✱	2024-05-07 13:08:16.180 EDT	]
> ✱	2024-05-07 13:08:16.180 EDT	}
> ✱	2024-05-07 13:08:16.186 EDT	Order function completed
> ⓘ	2024-05-07 13:08:16.188 EDT	Request finished HTTP/1.1 POST http://us-central1-graphic-adviser-422016-k7.cloudfunctions.net/ application/json 212 - 200 - - 33.8005ms