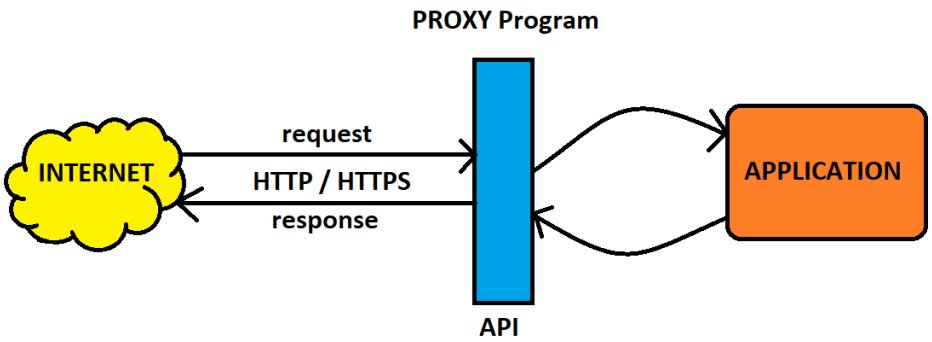
AWS Session 8

Summary – 26-02-2023

- In AWS if we want to do something in any service then we need an account in AWS. For example, if we want to upload something in the S3 bucket then we have to log in first then we can upload something. But if we want to upload something in an S3 bucket without having an AWS account then using API we can do all these types of tasks.

- AWS provides an "**API Gateway**" service that creates, publishes, maintains, monitors, and secures APIs at any scale.

- **API (Application Programming Interface):** It is a program that takes requests from the public world.

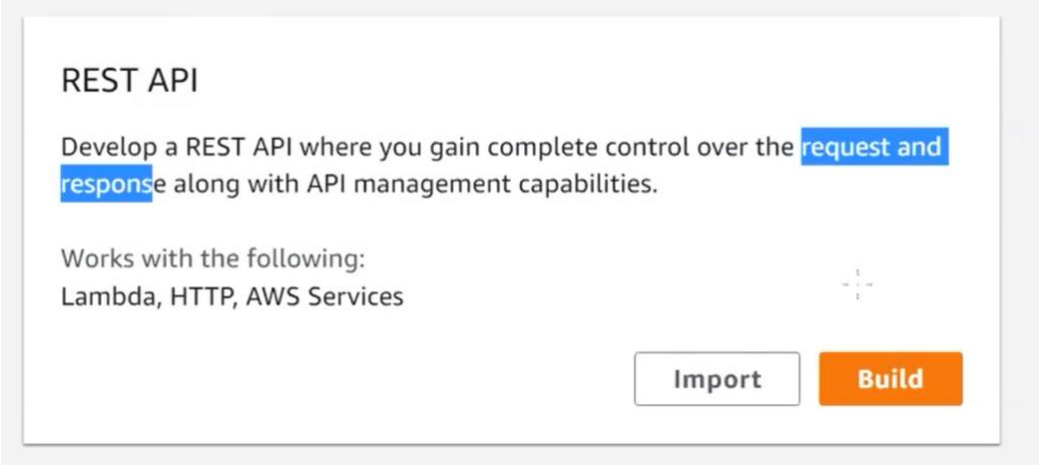


- When we hit any website / API then we have to mention verb actions such as get, post, patch, etc., and route/path/endpoint/resource path.

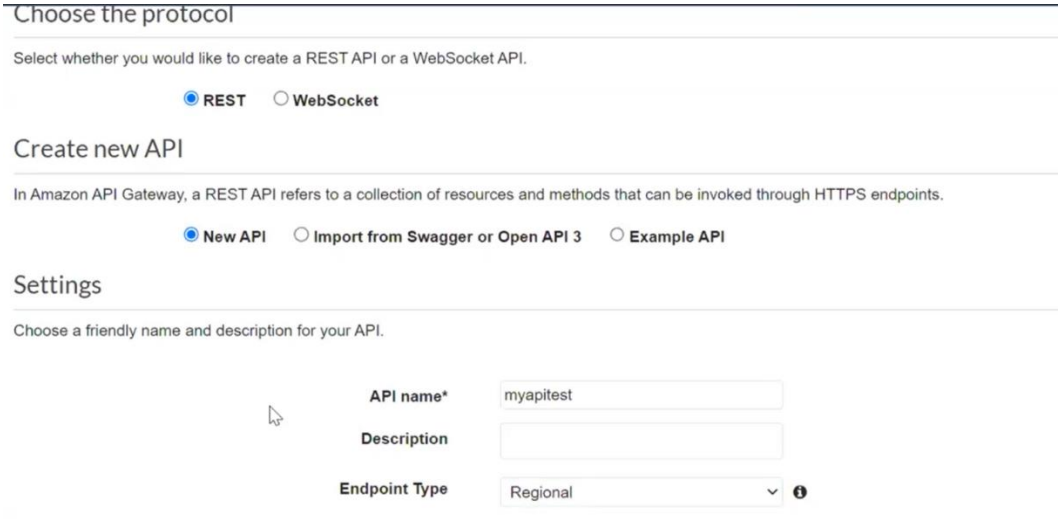
- "request–response" is one of the basic methods used to communicate with each other in a network, in which the first computer sends a request for some data and the second responds to the request.

- **Create API Gateway**:

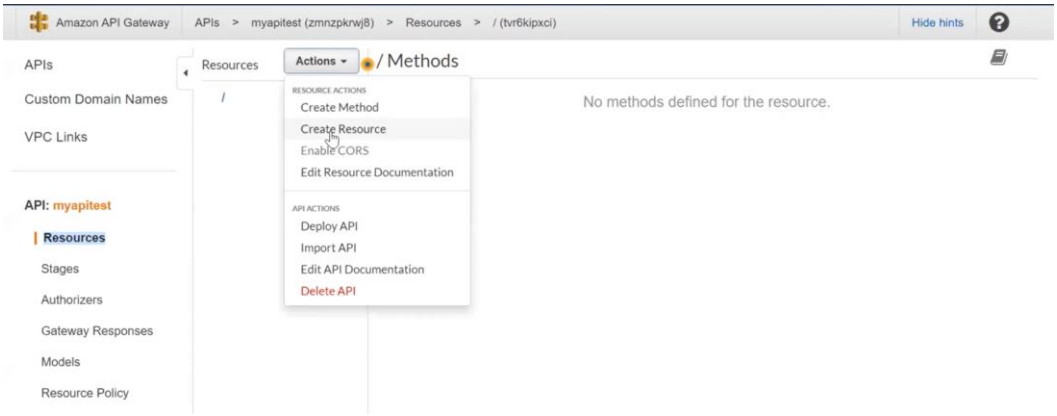
  1) Choose an API type:

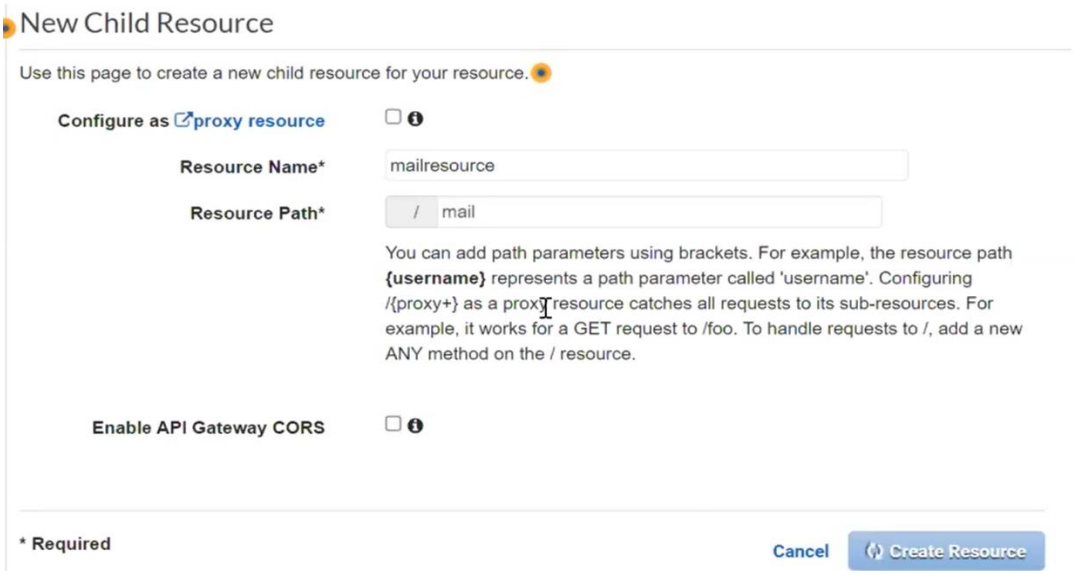


2) Create a new API and type API name:



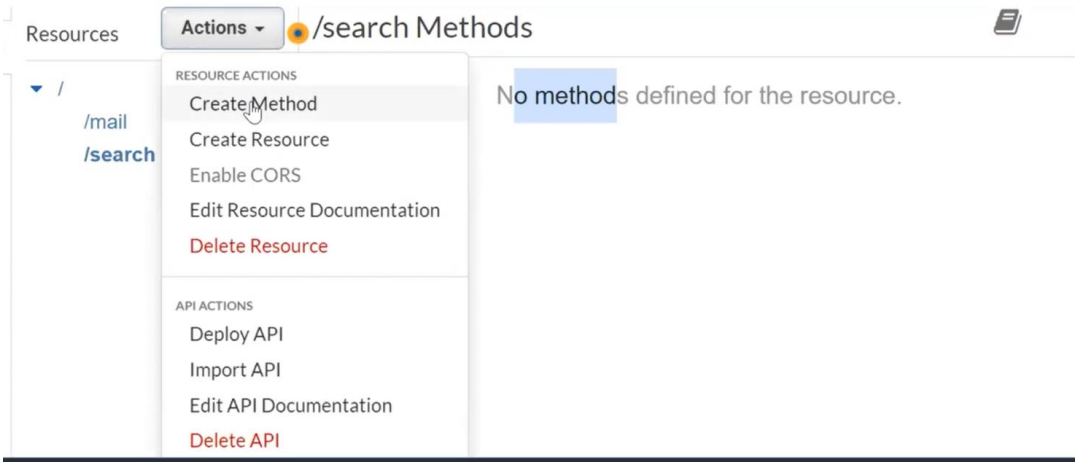
3) Create a Resource ie. Routing Path:

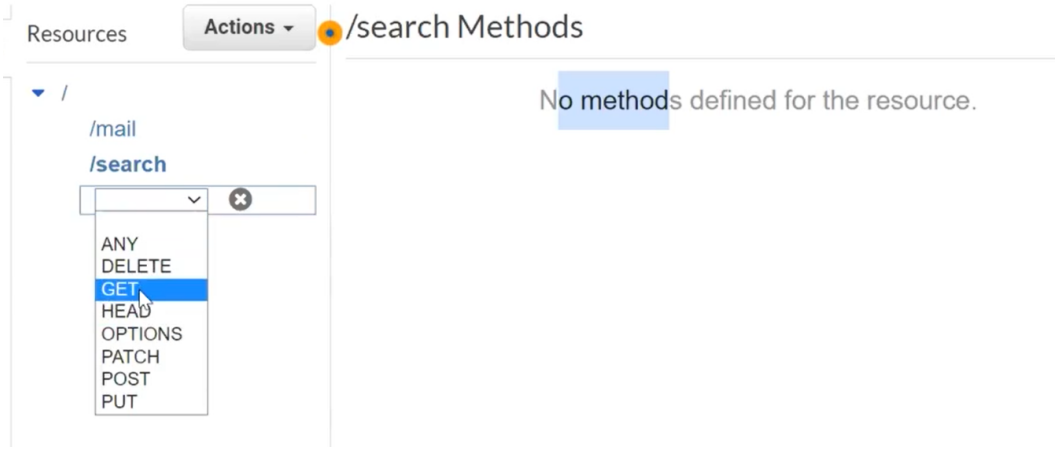




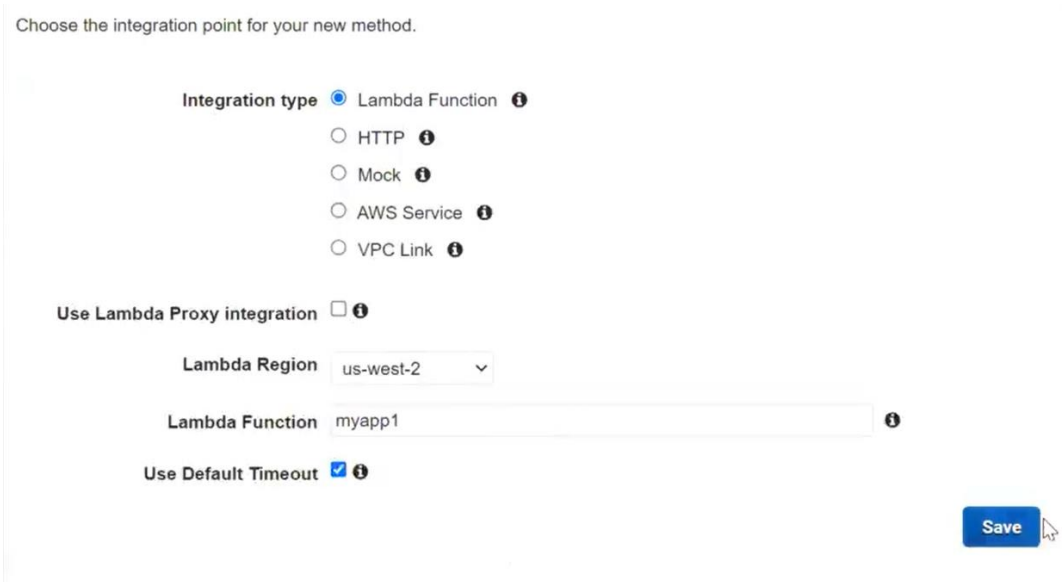
4) Create a lambda function that runs when we provide the above resource with API.

5) Select Resource then click on Actions for creating methods:

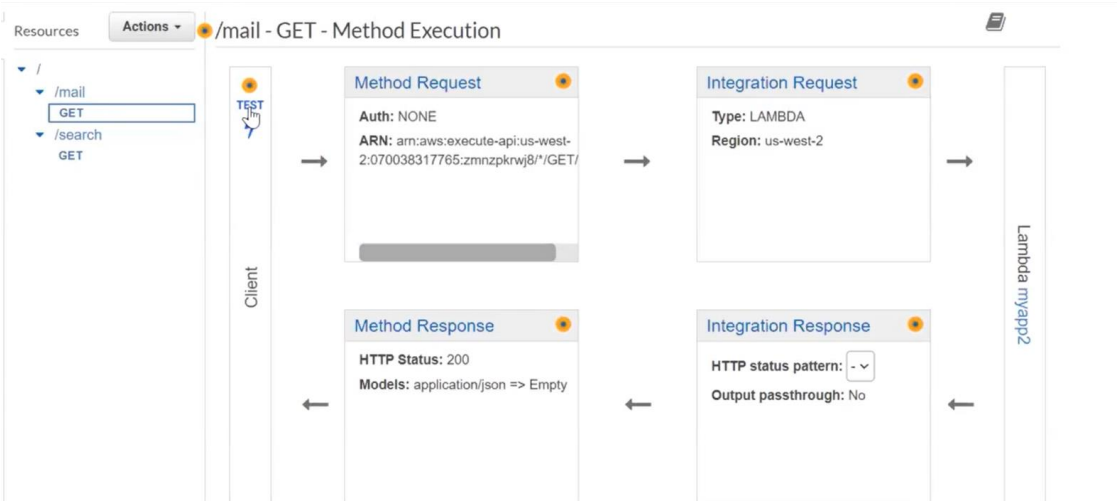




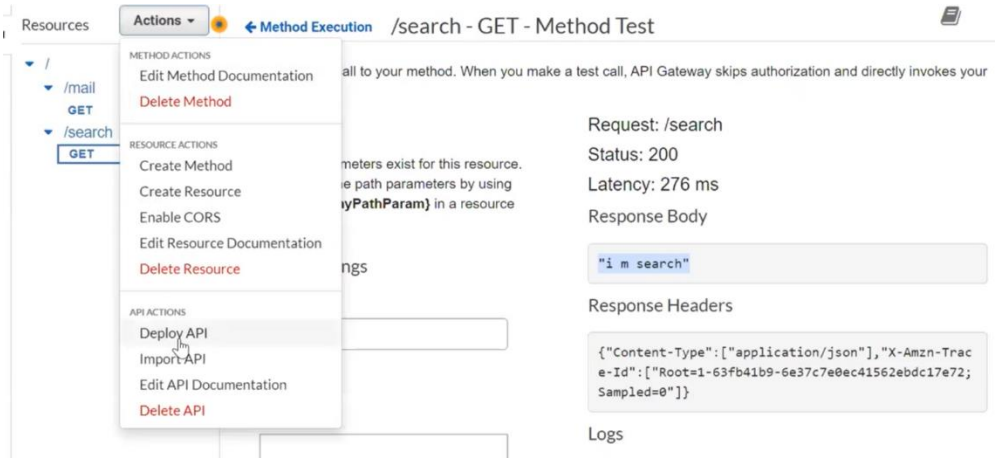
6) Choose integration type, lambda region, lambda function:

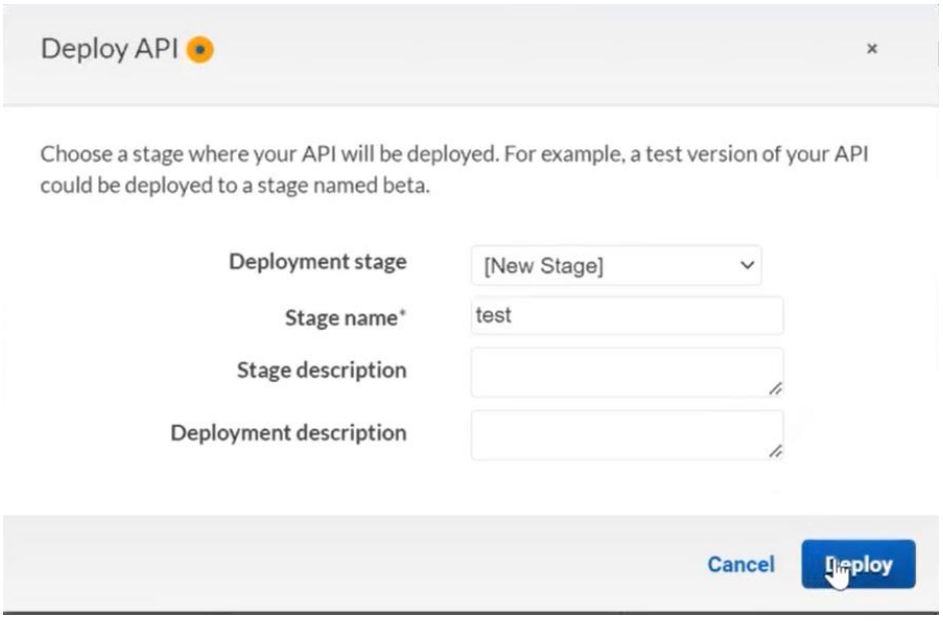


7) Now test API Gateway:



8) After successful testing, deploy the API and they provide invoke URL:

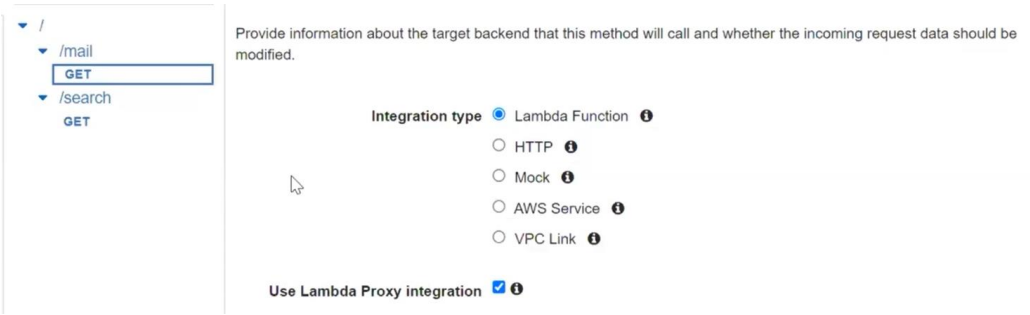




9) Now trigger the lambda function using API Gateway:

```
C:\Users\Vimal Daga>curl https://zmnzpkrwj8.execute-api.us-west-2.amazonaws.com/test/mail
"i m mail new changes done"
C:\Users\Vimal Daga>
```

- When we hit the URL then every hit is an event for the lambda function and if we want some event information to send to the lambda log as input then we have to enable "**Use Lambda Proxy integration**" and then redeploy the API gateway.



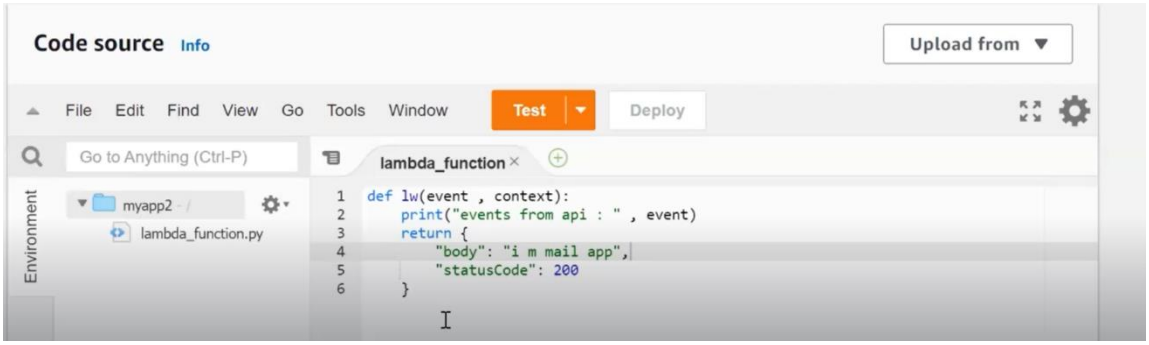
- When the client hit the URL then for the client, the API gateway is the server and the API gateway creates a new request then for the API gateway, Lambda is the server. Client can't directly go to lambda therefore lambda can't access the information about the client as the event. For the lambda API gateway is the client.

- If we enable the option “Use Lambda Proxy integration” then, when the client hit the URL then, the API gateway doesn’t recreate any request it sends as it is to lambda, therefore, it fills like the client directly sends a request to lambda.

- When the client hit the URL the server always sends the status code in the header if the status code is 200 then the output will return to the client.

- But when we enable “Use Lambda Proxy integration” then in lambda we have to mention which status code lambda will send to the client because here API gateway sends the reply as it is what lambda sends.

- When we write lambda function then in return we have a total 2 sections such as body and status code.



- Return the IP address of the client who hit the URL:

- When we hit the URL using the above lambda function then it will look like this:

```
C:\Users\Vimal Daga>curl   -X GET  https://zmnzpkrwj8.execute-api.us-west-2.amazonaws.com/test/mail
i m mail app , i know ur ip : 49.36.233.68
```