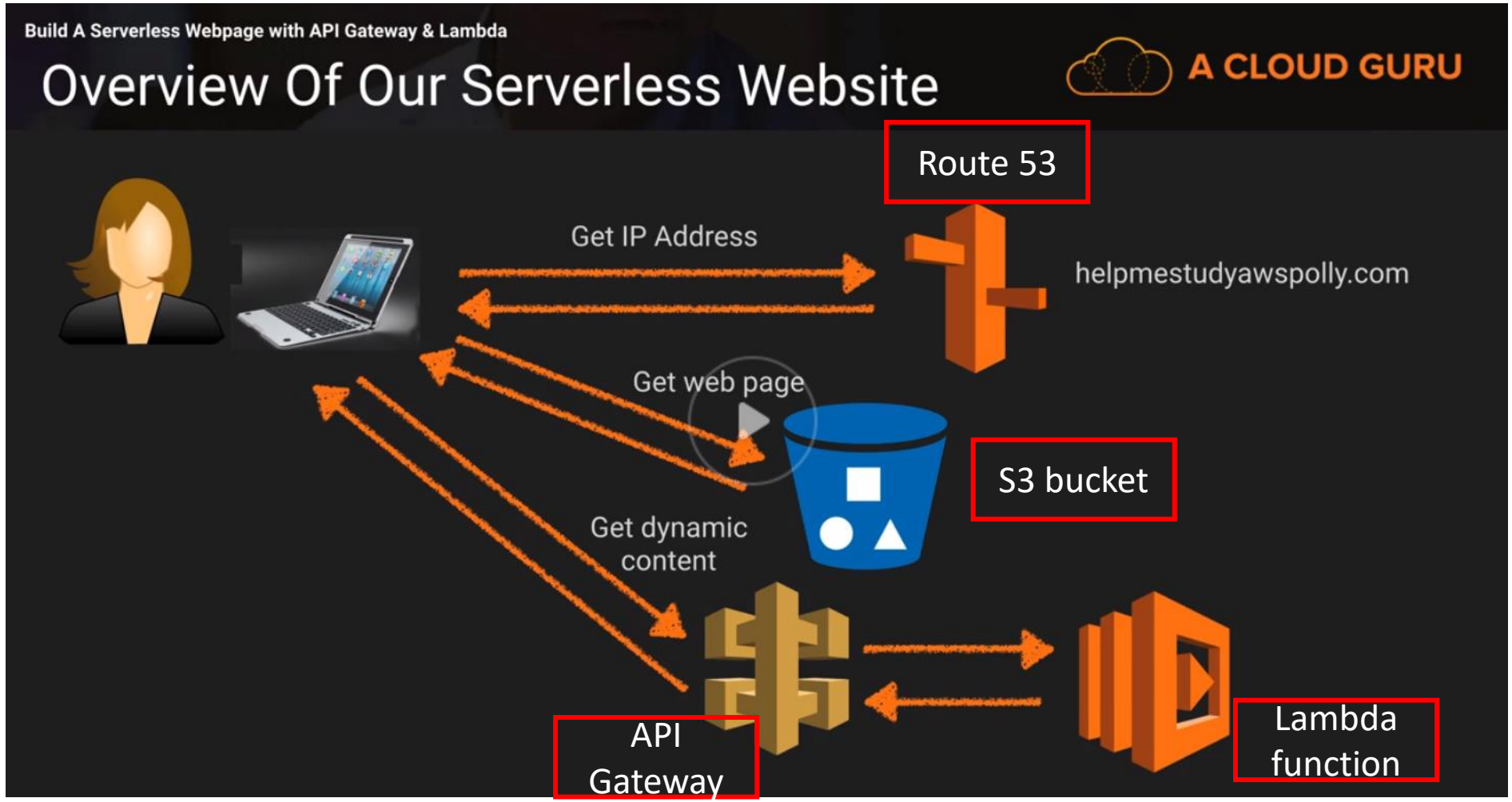
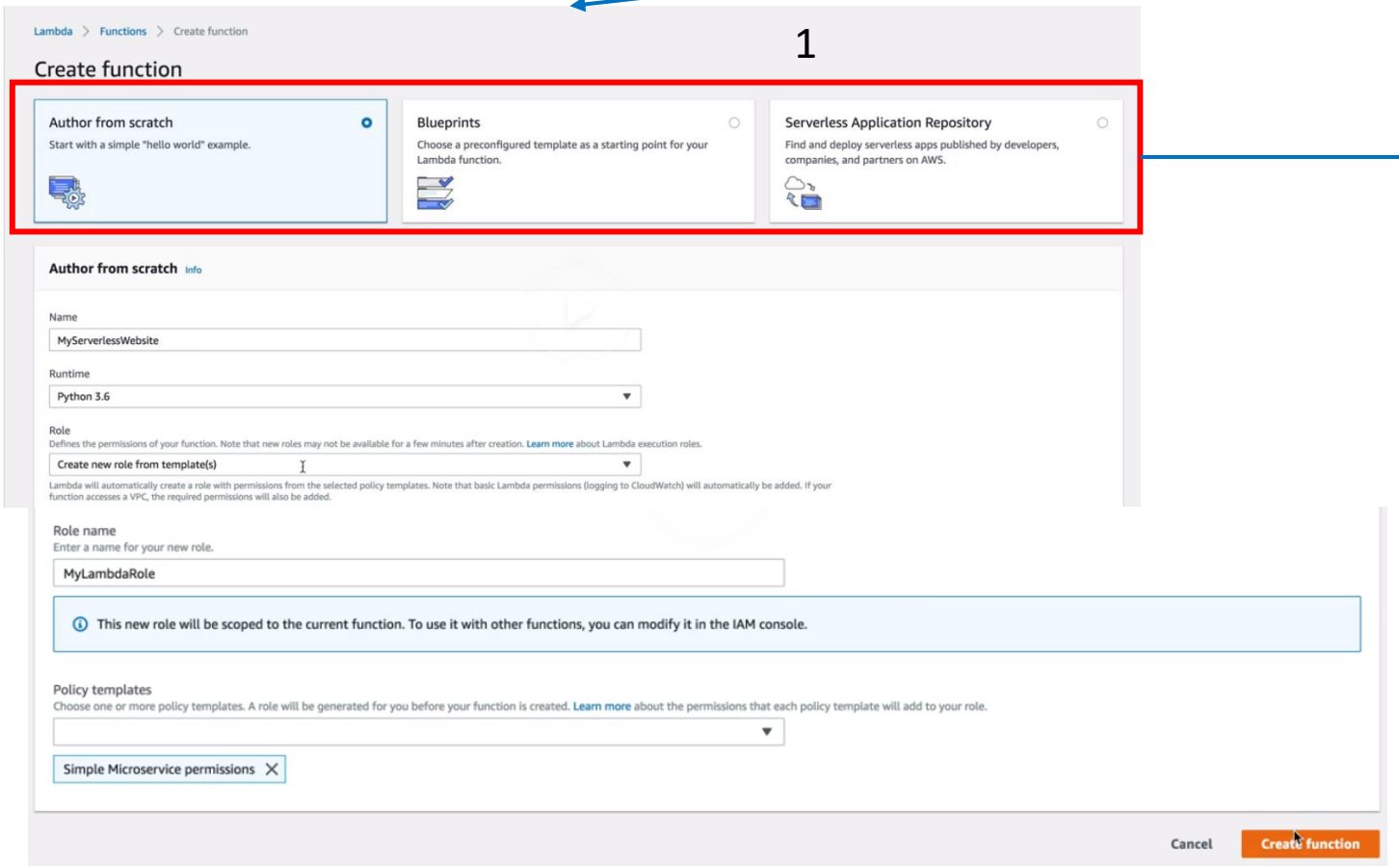
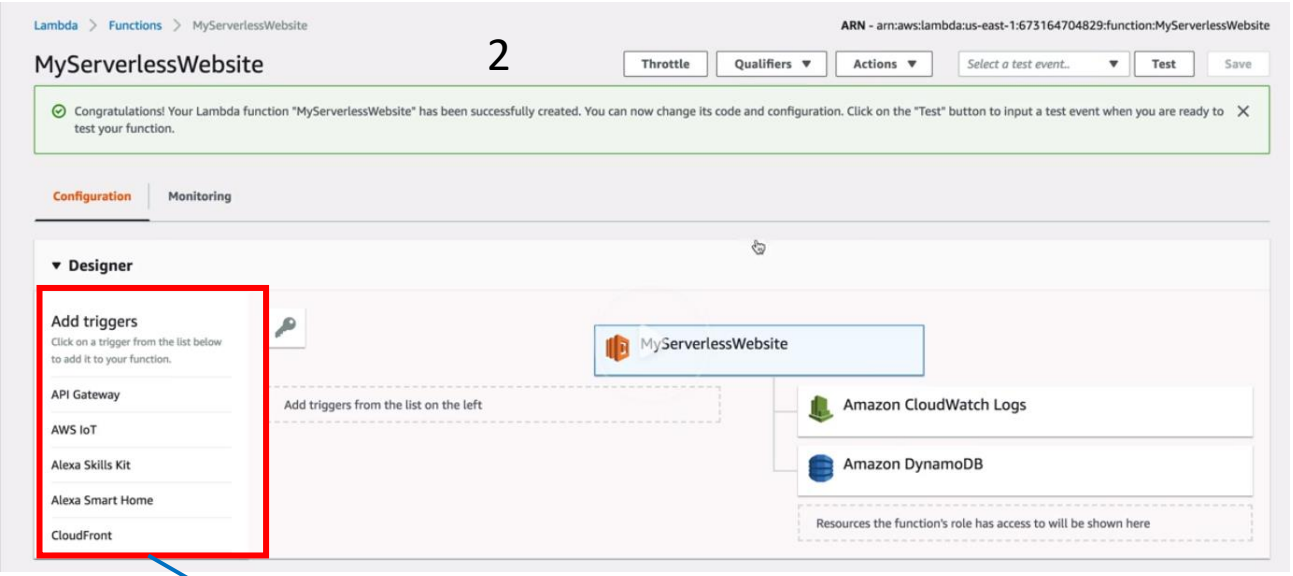

Build A Serverless Webpage with API Gateway & Lambda
Overview Of Our Serverless Website
A CLOUD GURU
Route 53
Get IP Address
helpmestudyawspolly.com
Get web page
S3 bucket
Get dynamic content
API Gateway
Lambda function

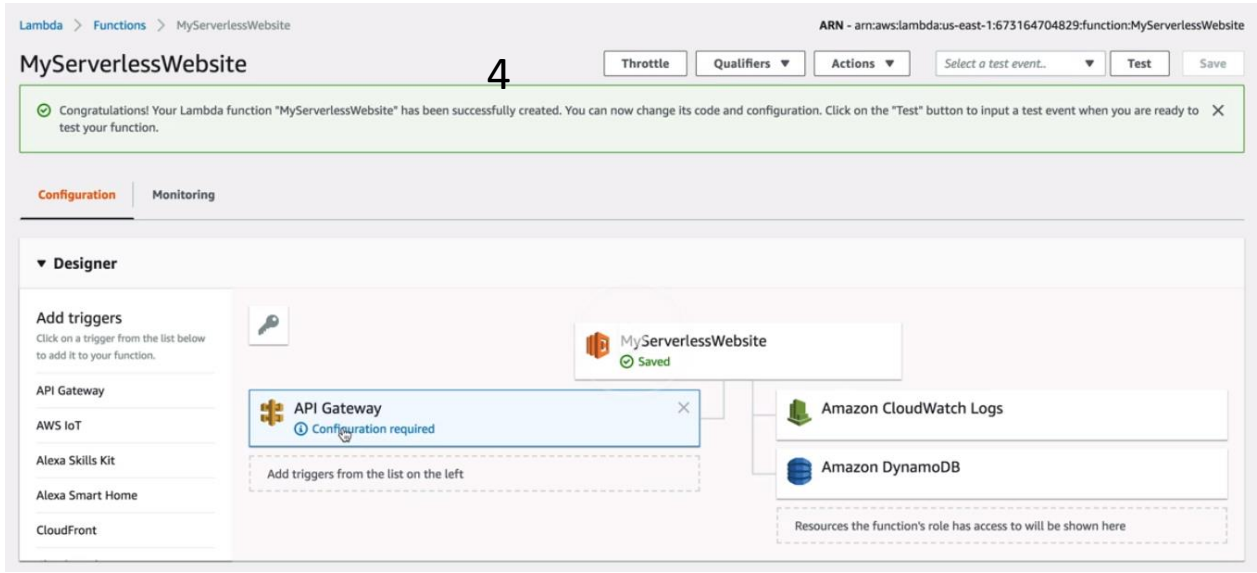
When we register domain name using static website in the s3, we need to look for 2 things – domain name is available and bucket name is available. Domain name and bucket name should be the same.

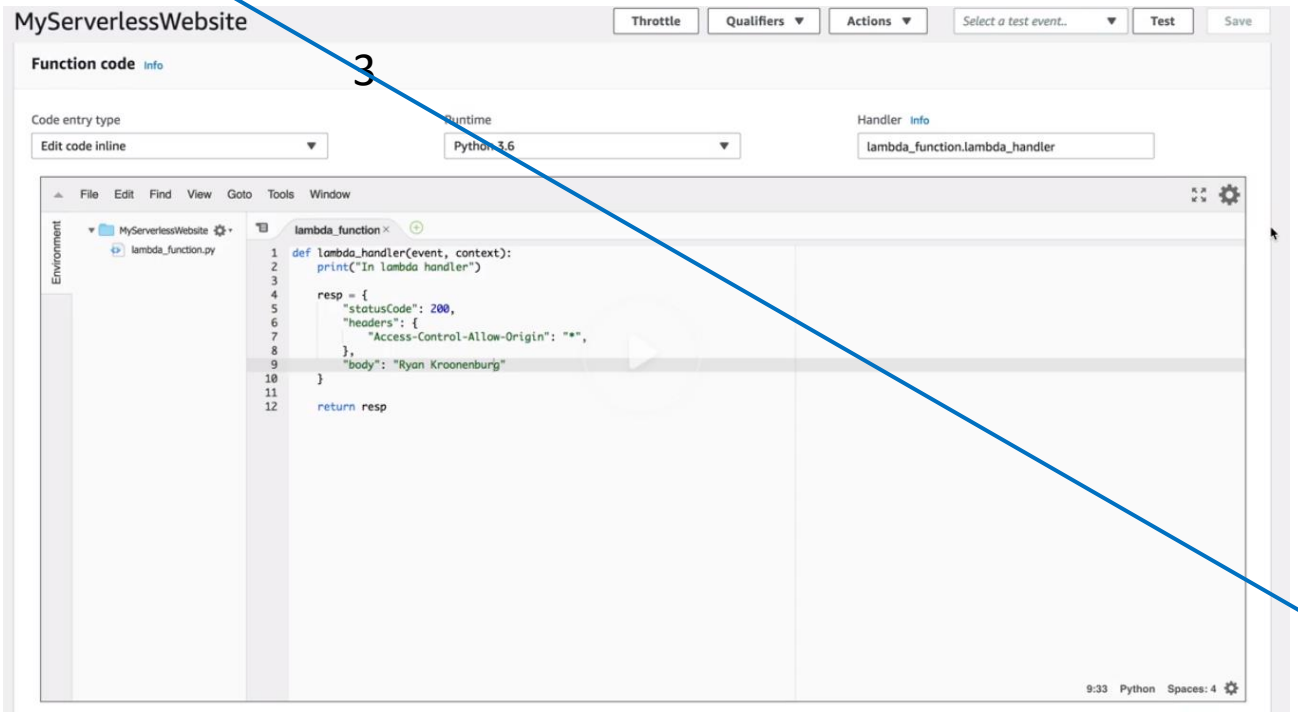
Create s3 static website bucket with index.html and error.html
Services → networking and content delivery → route 53 → register domain name → make sure the domain is available.
S3 bucket name and domain name should be same.
Services → compute → lambda → create lambda function

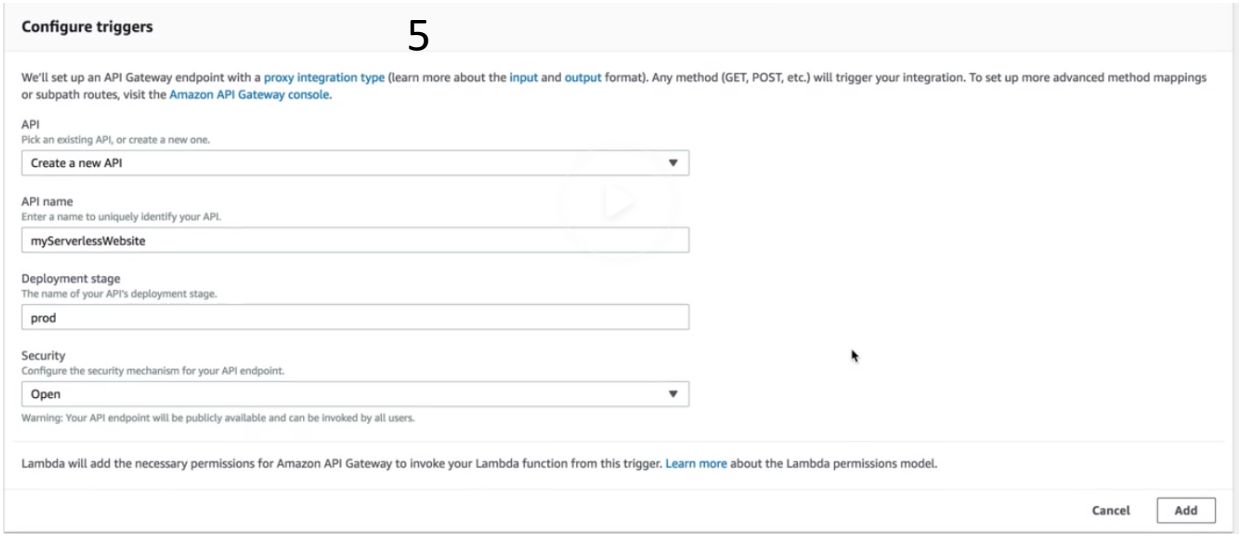


3 ways of creating lambda function



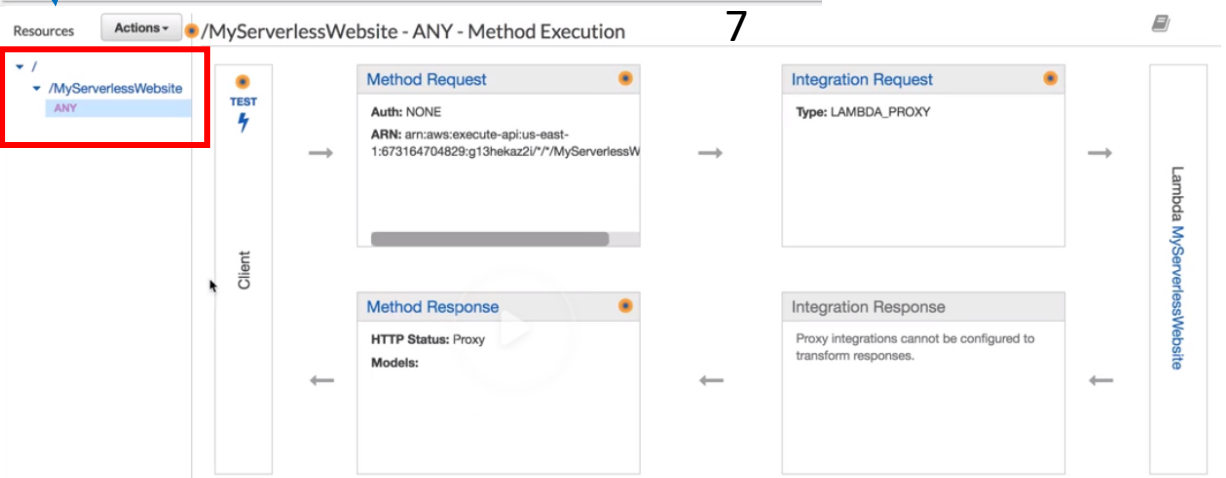


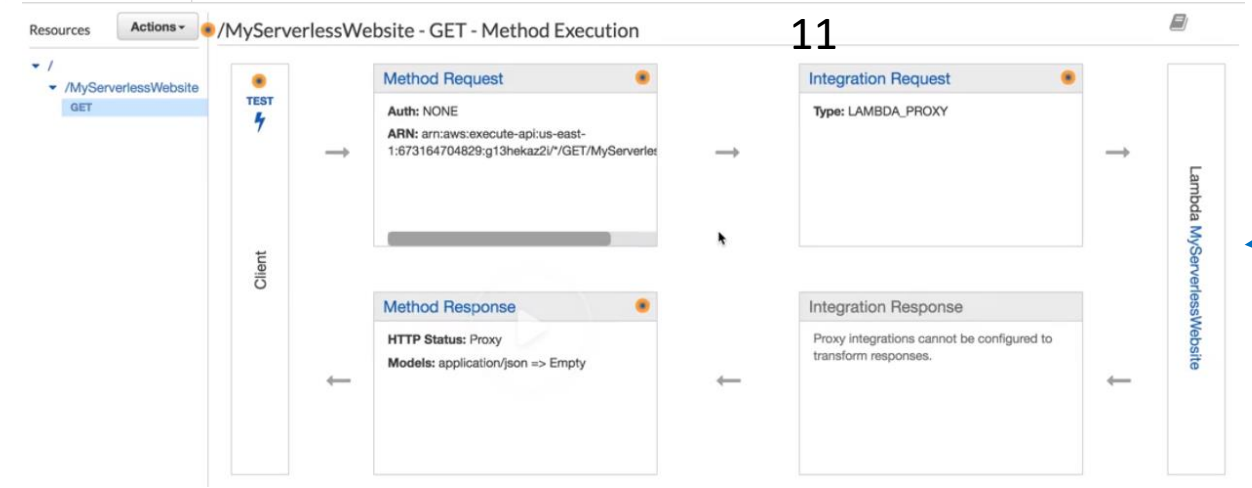


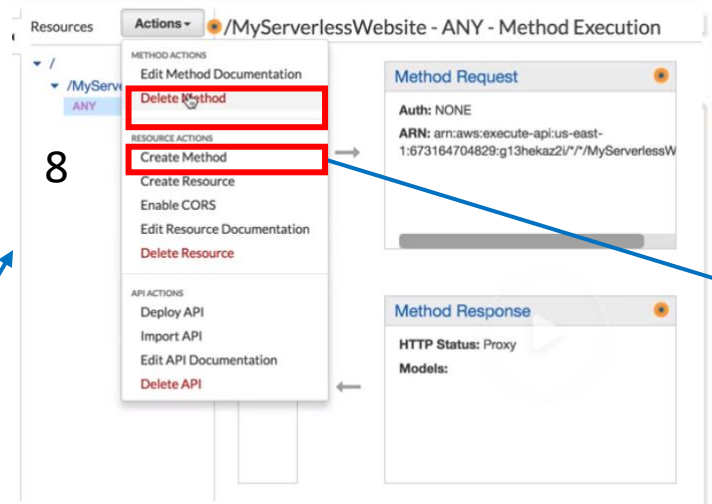


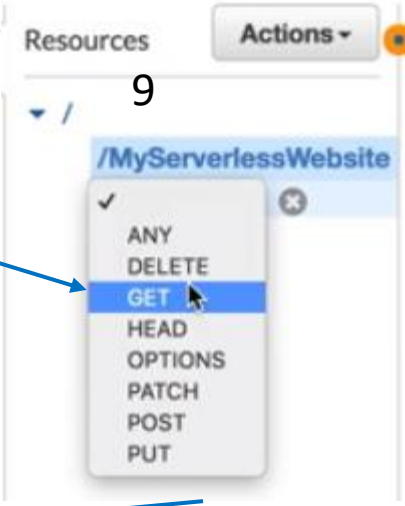
Exam question on triggers – which are not aws triggers?

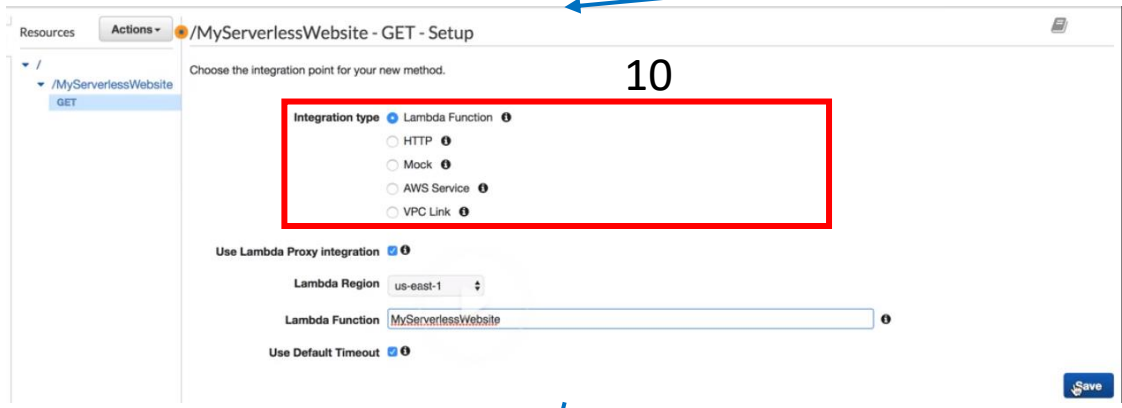

API Gateway
6
myServerlessWebsite
arn:aws:execute-api:us-east-1:673164704829:g13hekaz2i/*/*/MyServerlessWebsite
Details
Security: NONE
Method: ANY
Resource path: /MyServerlessWebsite
API name: myServerlessWebsite
API: api-gateway/g13hekaz2i/*/*/MyServerlessWebsite
Authorization: NONE
Invoke URL: https://g13hekaz2i.execute-api.us-east-1.amazonaws.com/prod/MyServerlessWebsite
Stage: prod

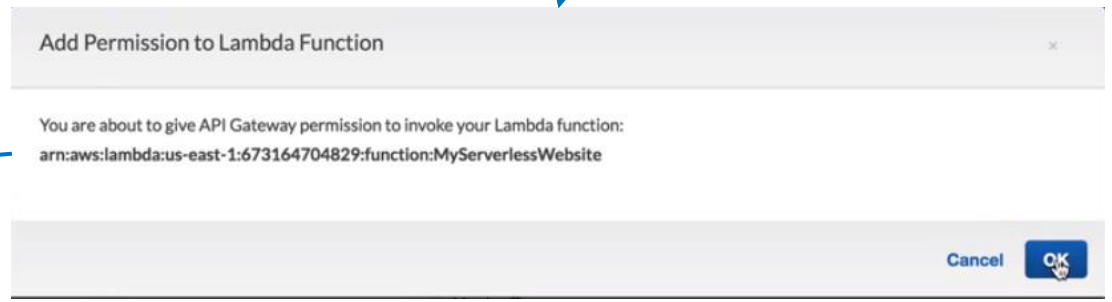

Resources
Actions
/MyServerlessWebsite - ANY - Method Execution
7
/
/MyServerlessWebsite
ANY
TEST
Client
Method Request
Auth: NONE
ARN: arn:aws:execute-api:us-east-1:673164704829:g13hekaz2i/*/*/MyServerlessW
Integration Request
Type: LAMBDA_PROXY
Method Response
HTTP Status: Proxy
Models:
Integration Response
Proxy integrations cannot be configured to transform responses.
Lambda MyServerlessWebsite

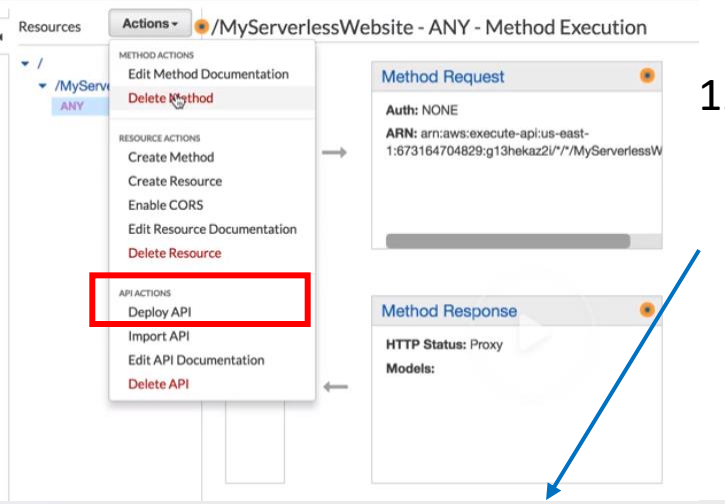

Resources
Actions
/MyServerlessWebsite - GET - Method Execution
11
/
/MyServerlessWebsite
GET
TEST
Client
Method Request
Auth: NONE
ARN: arn:aws:execute-api:us-east-1:673164704829:g13hekaz2i/*/GET/MyServerles
Integration Request
Type: LAMBDA_PROXY
Method Response
HTTP Status: Proxy
Models: application/json => Empty
Integration Response
Proxy integrations cannot be configured to transform responses.
Lambda MyServerlessWebsite


Resources
Actions
/MyServerlessWebsite - ANY - Method Execution
8
/
/MyServ
ANY
METHOD ACTIONS
Edit Method Documentation
Delete Method
RESOURCE ACTIONS
Create Method
Create Resource
Enable CORS
Edit Resource Documentation
Delete Resource
API ACTIONS
Deploy API
Import API
Edit API Documentation
Delete API
Method Request
Auth: NONE
ARN: arn:aws:execute-api:us-east-1:673164704829:g13hekaz2i/*/*/MyServerlessW
Method Response
HTTP Status: Proxy
Models:

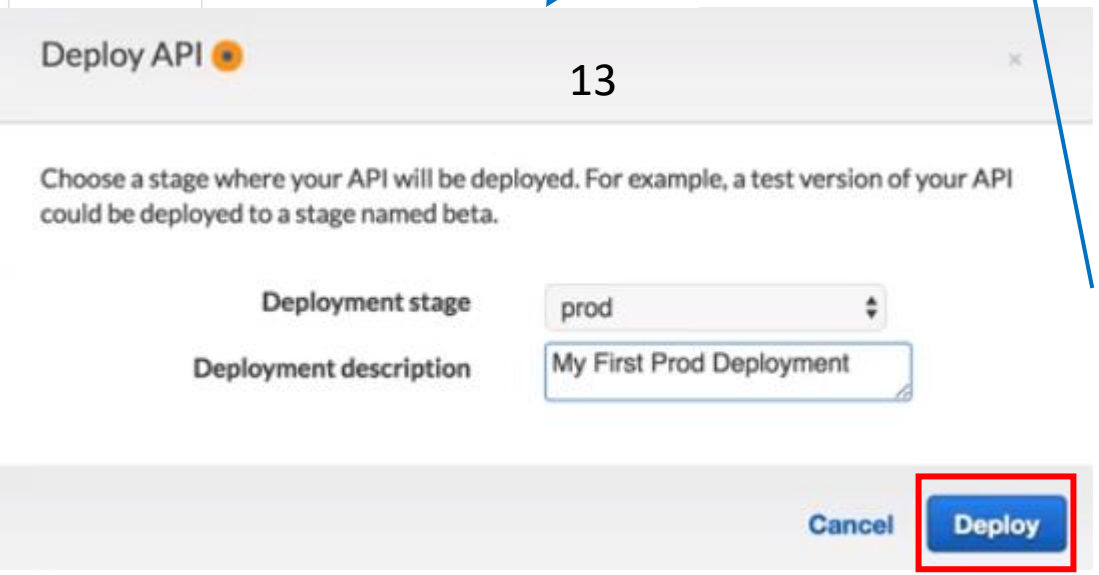

Resources
Actions
9
/
/MyServerlessWebsite
ANY
DELETE
GET
HEAD
OPTIONS
PATCH
POST
PUT


Resources
Actions
/MyServerlessWebsite - GET - Setup
10
/
/MyServerlessWebsite
GET
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
MyServerlessWebsite
Use Default Timeout
Save

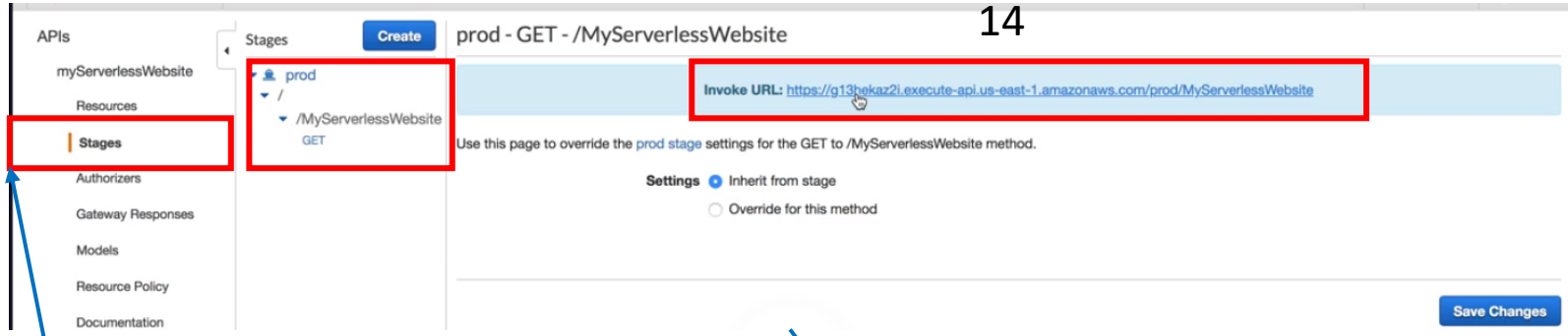

Add Permission to Lambda Function
You are about to give API Gateway permission to invoke your Lambda function:
arn:aws:lambda:us-east-1:673164704829:function:MyServerlessWebsite
Cancel
OK


Resources
Actions
/MyServerlessWebsite - ANY - Method Execution
METHOD ACTIONS
Edit Method Documentation
Delete Method
RESOURCE ACTIONS
Create Method
Create Resource
Enable CORS
Edit Resource Documentation
Delete Resource
API ACTIONS
Deploy API
Import API
Edit API Documentation
Delete API
Method Request
Auth: NONE
ARN: arn:aws:execute-api:us-east-1:673164704829:g13hekaz2i/*/*/MyServerlessW
Method Response
HTTP Status: Proxy
Models:

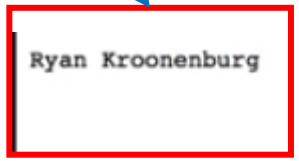
12


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
prod
Deployment description
My First Prod Deployment
Cancel
Deploy

13


APIs
myServerlessWebsite
Resources
Stages
Authorizers
Gateway Responses
Models
Resource Policy
Documentation
Stages
Create
prod
/
/MyServerlessWebsite
GET
prod - GET - /MyServerlessWebsite
Invoke URL: https://g13hekaz2i.execute-api.us-east-1.amazonaws.com/prod/MyServerlessWebsite
Use this page to override the prod stage settings for the GET to /MyServerlessWebsite method.
Settings
Inherit from stage
Override for this method
Save Changes

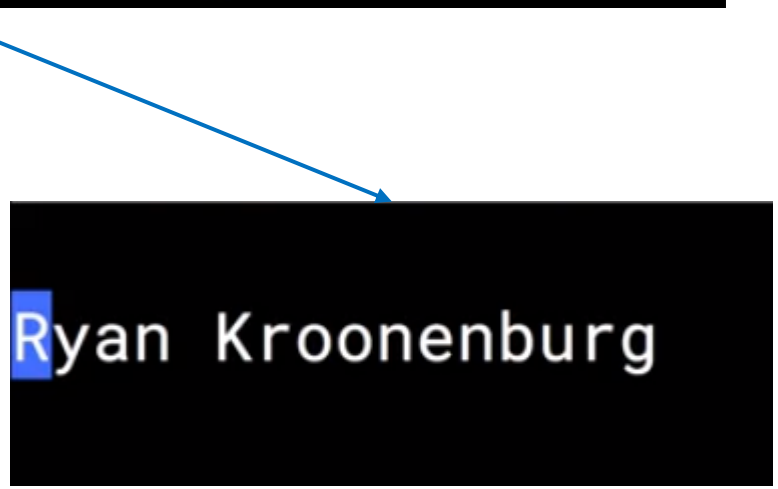
14


Ryan Kroonenburg

15

Accessing API gateway using ec2 cli

```
[root@ip-172-31-25-145 ec2-user]# curl "https://g13hekaz2i.execute-api.u
s-east-1.amazonaws.com/prod/MyServerlessWebsite" > myname.txt
  % Total    % Received % Xferd  Average Speed   Time    Time     Time
Current
                                 Dload  Upload   Total   Spent    Left
Speed
  0     0    0     0    0     0      0      0 --:--:-- --:--:-- --:--:--
  0     0    0     0    0     0      0      0 --:--:-- --:--:-- --:--:--
100    16  100    16    0     0     82      0 --:--:-- --:--:-- --:--:--
    82
[root@ip-172-31-25-145 ec2-user]# nano myname.txt
```

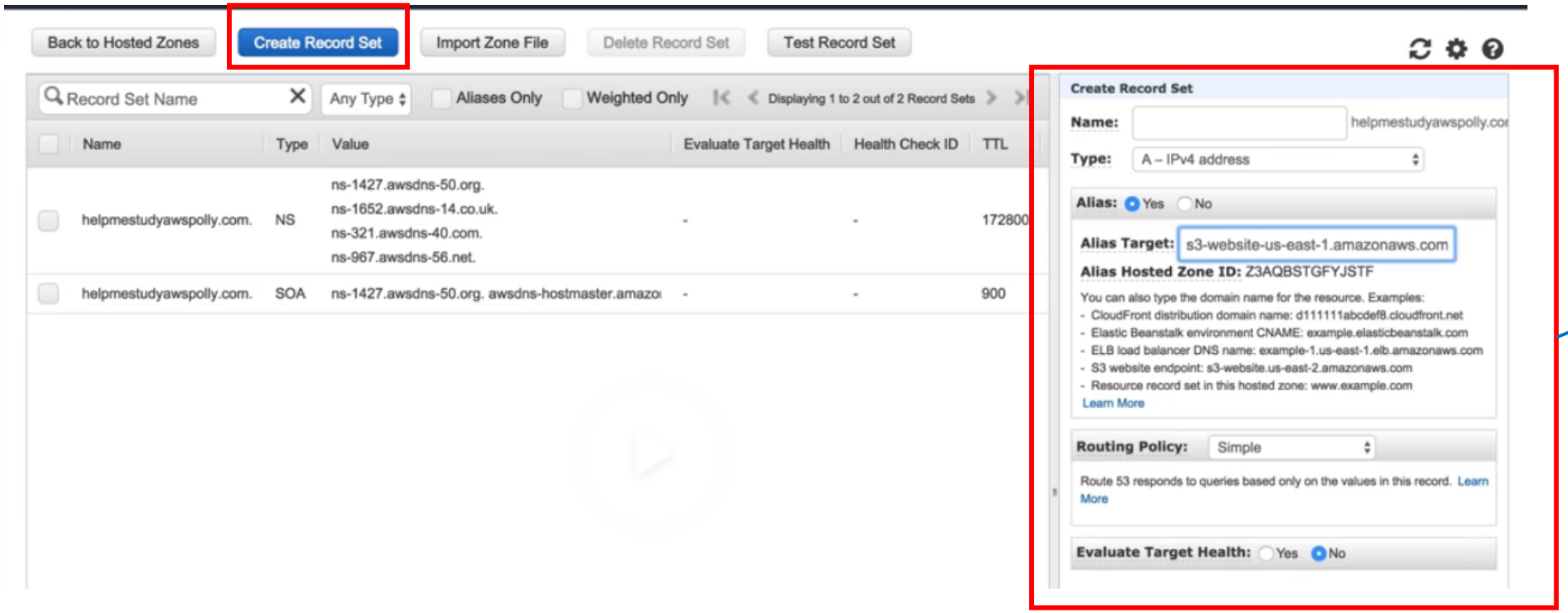


helloclougurus.py
index.html

```
<html>
    <head>
        <script>
            function myFunction() {
                var xhttp = new XMLHttpRequest();
                xhttp.onreadystatechange = function() {
                    if (this.readyState == 4 && this.status == 200) {
                    document.getElementById("my-demo").innerHTML = this.responseText;
                    }
                };
                xhttp.open("GET", "https://g13hekaz2i.execute-api.us-east-1.amazonaws.com/prod/MyServerlessWebsite", true);
                xhttp.send();

            }

        </script>
    </head>
<body>
    <div align="center">
        <br>
        <br>
        <br>
        <br>
        <h1>Hello <span id="my-demo">Cloud Gurus!</span></h1>
        <button onclick="myFunction()">Click me</button>
        <br>
        <img src="https://s3.amazonaws.com/bucketforserverlesswebsitelab-donotdelete/falconheavy.jpg">
    </div>

    </body>
</html>
```

Add the api gateway url.
Upload the index.html and error.html to the s3 bucket.

Services → networking and content delivery → route 53 → hosted zones → selected the domain name



We should see the s3 bucket name. else, it means our s3 bucket name and domain name aren't same.

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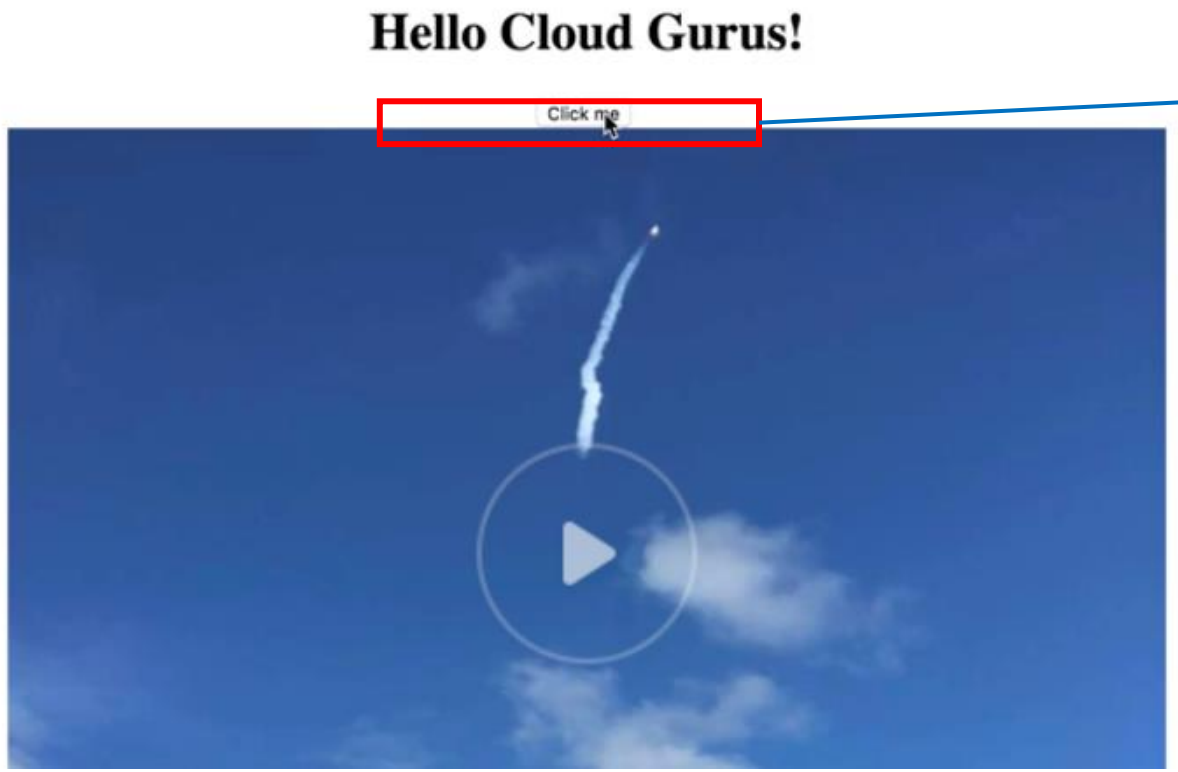

Click me hits the api gateway and this triggers the lambda function and returns the response back.