AWS Lab on Lambda Functions (Building Server less web applications)

AWS Lambda:

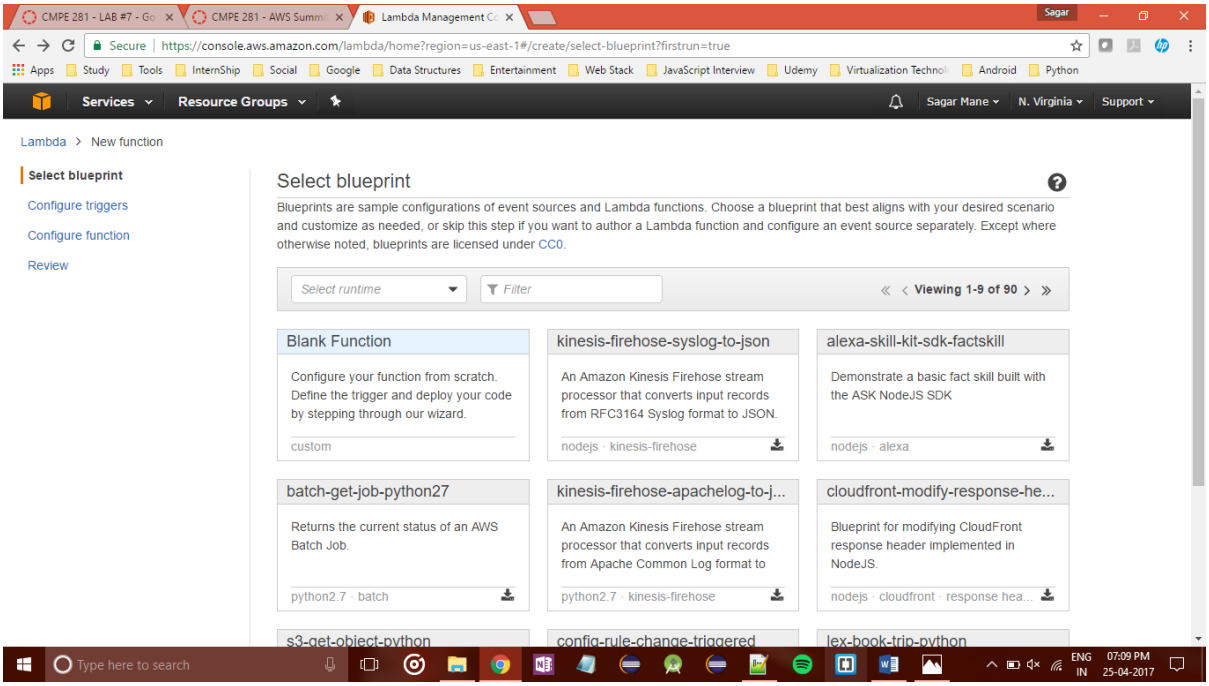
AWS Lambda lets you run code without provisioning or managing servers. With Lambda, you can run code for virtually any type of application or backend service. Just upload your code and Lambda takes care of everything required to run and scale your code with high availability.

- No Servers to manage
- Continuous Scaling
- Sub second metering

Hello World using AWS lambda and Amazon API gateway

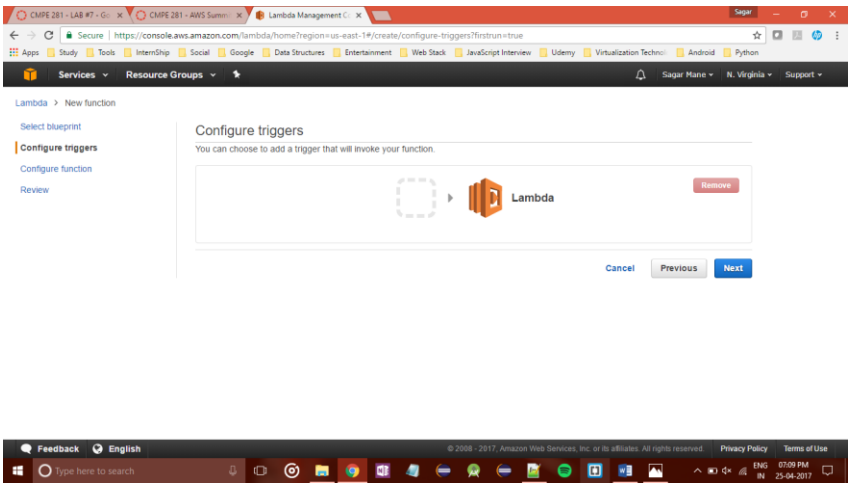
Steps:

1. Select Blueprint (Blank Function)-
   You can choose others depending upon the available templates for respective runtimes. I have chosen blank one with python 2.7 runtime.



2. Configure Triggers

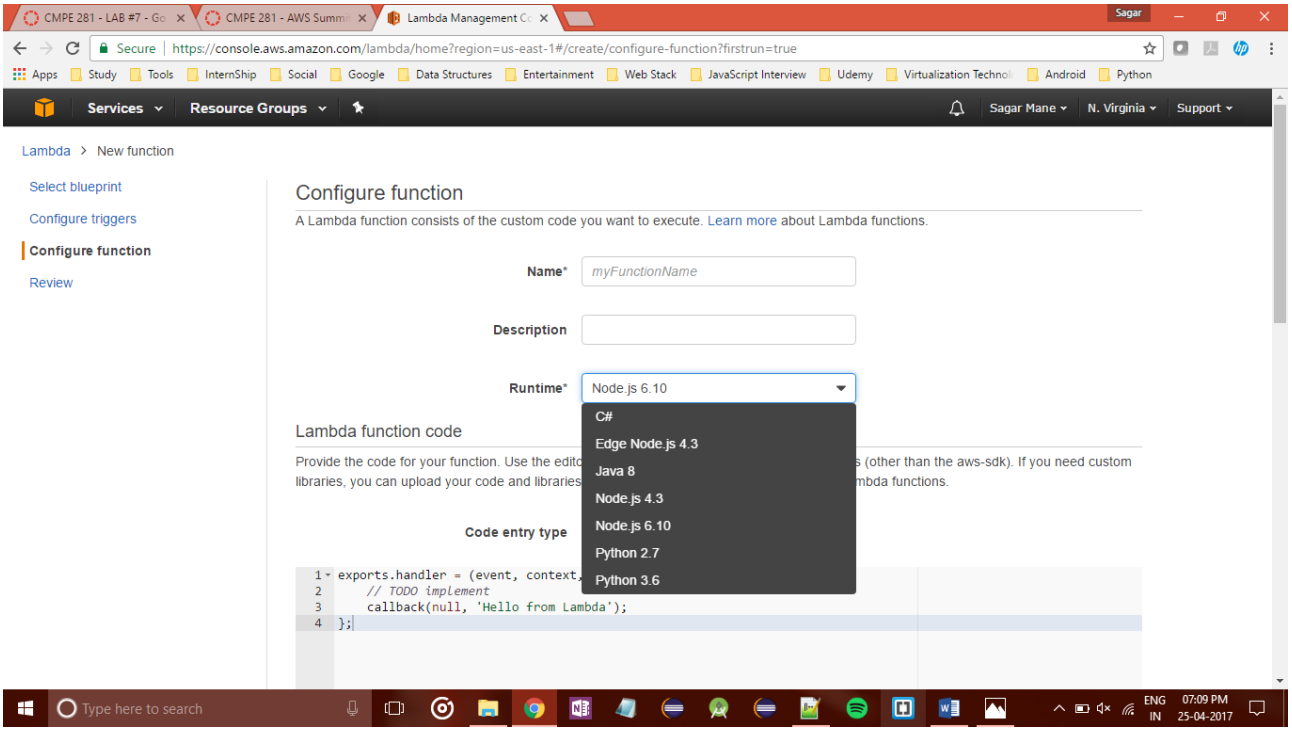
   You can choose to add a trigger that will invoke your function.



3. Configure Function

   Put your code you want to trigger inside lambda function. This is the step in which you write the code to execute upon certain triggers.

   I have written simple lambda function which returns Hello World.

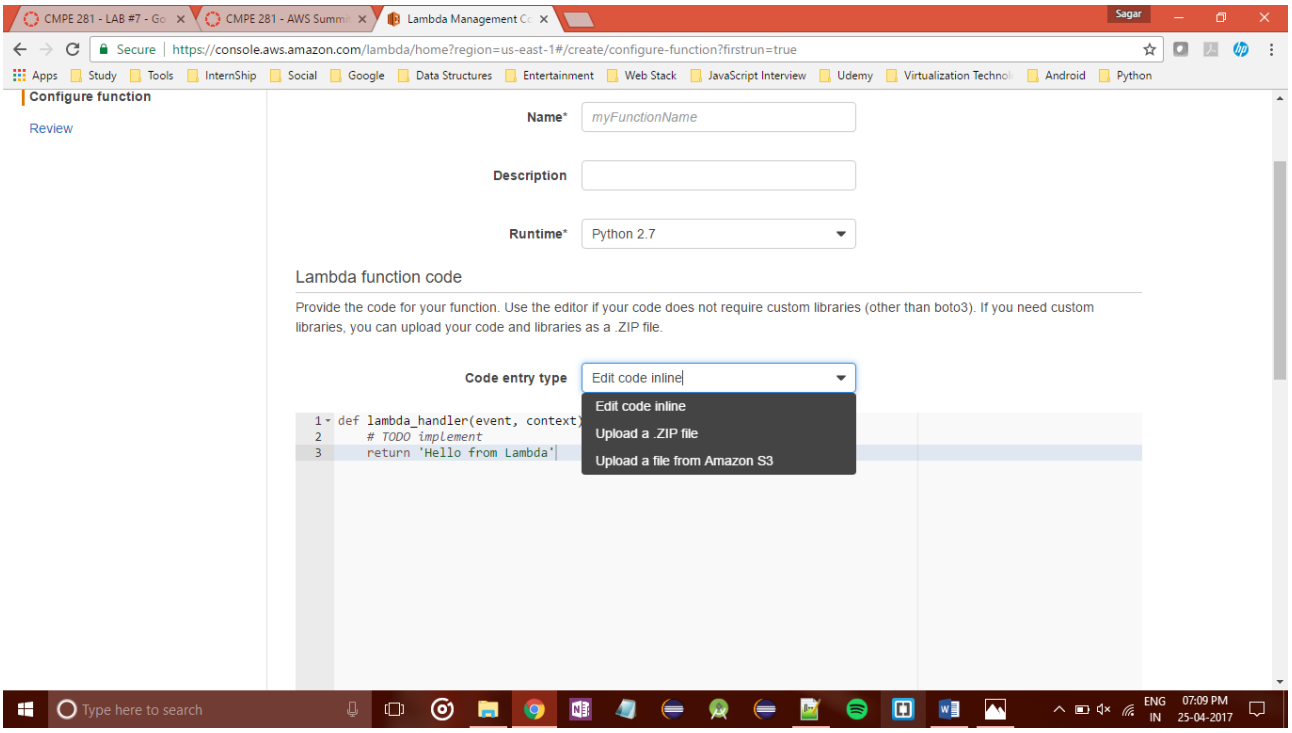


   You get option to choose runtime environment here. You have options such as Node.js, Python, C# etc.

4. Lambda Function Code

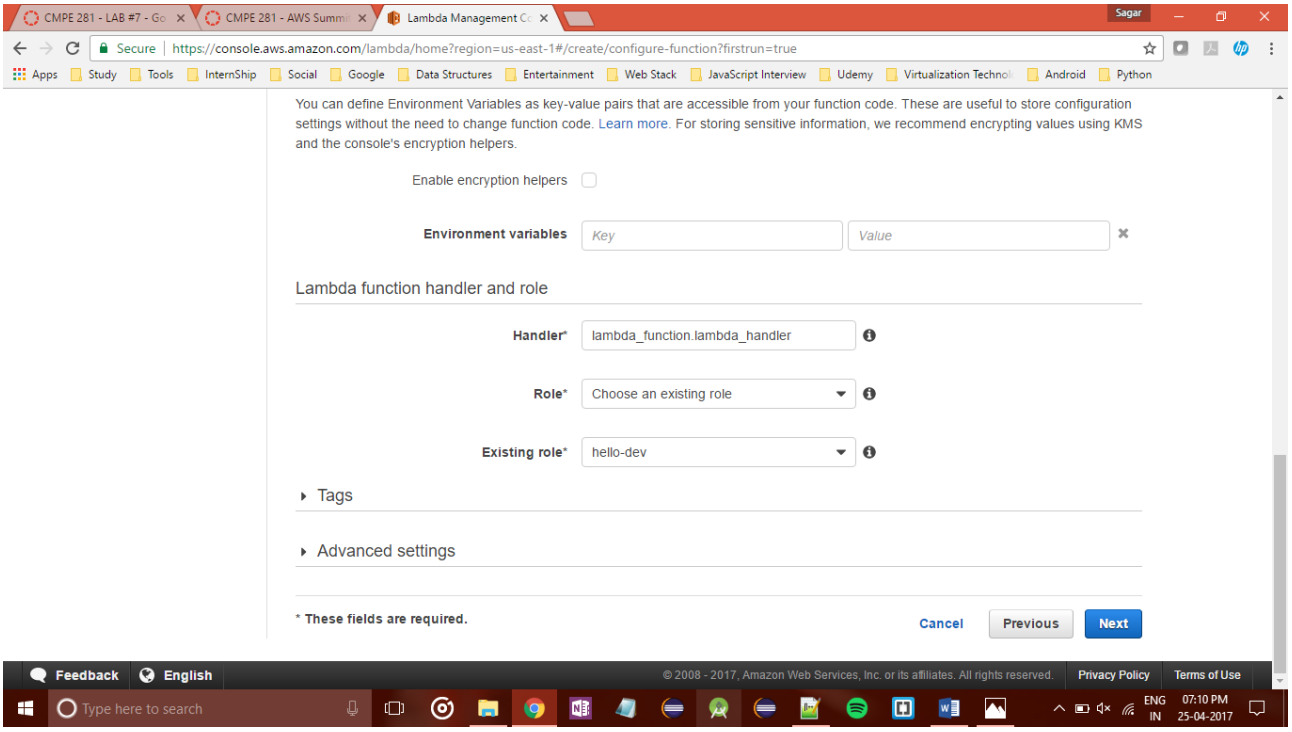
   You have option to write code inline or you have option to upload a zip file and you also have option to upload a file from Amazon S3.

   I have written inline code.

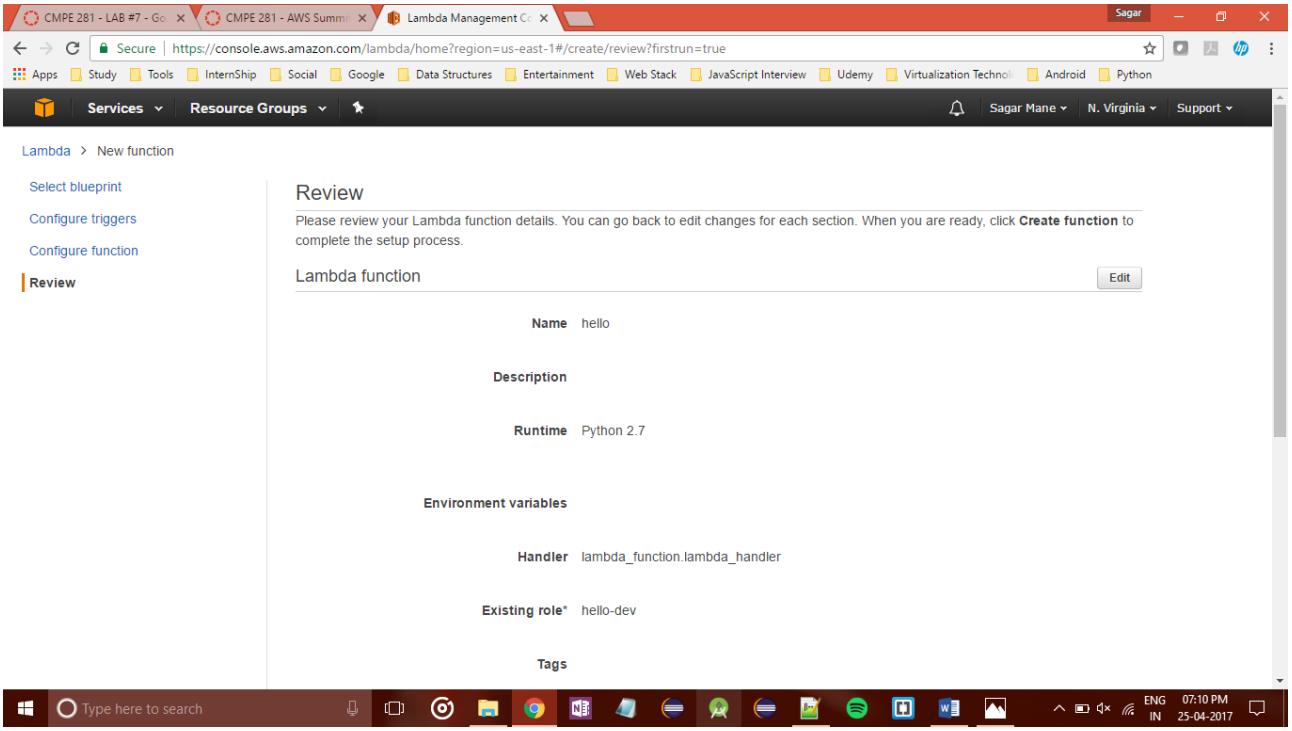


5. Choose IAM Role

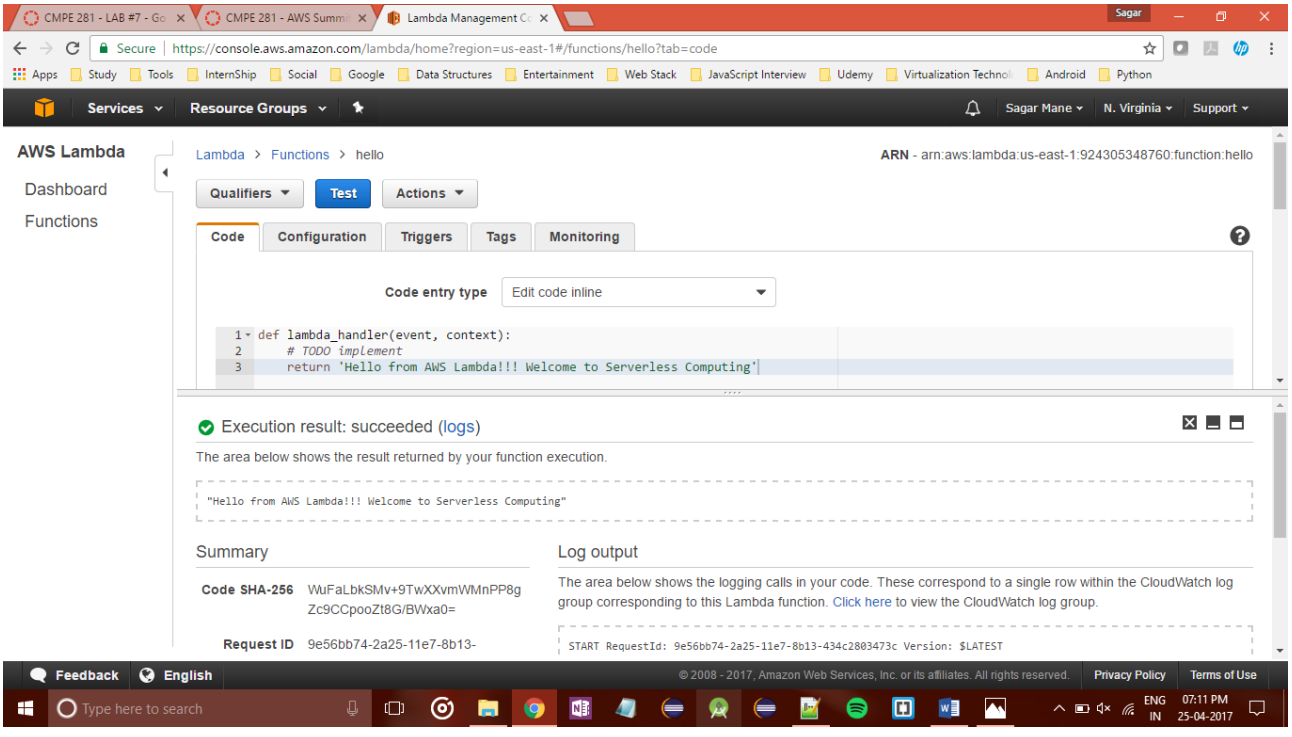
   You can use existing role or create a new one. You can also specify environment variables.



6. Review preferences



7. Test your function



Now our lambda function is ready to use. We need to invoke it. I am using AWS API gateway for invoking the lambda function I just deployed.

AWS API Gateway

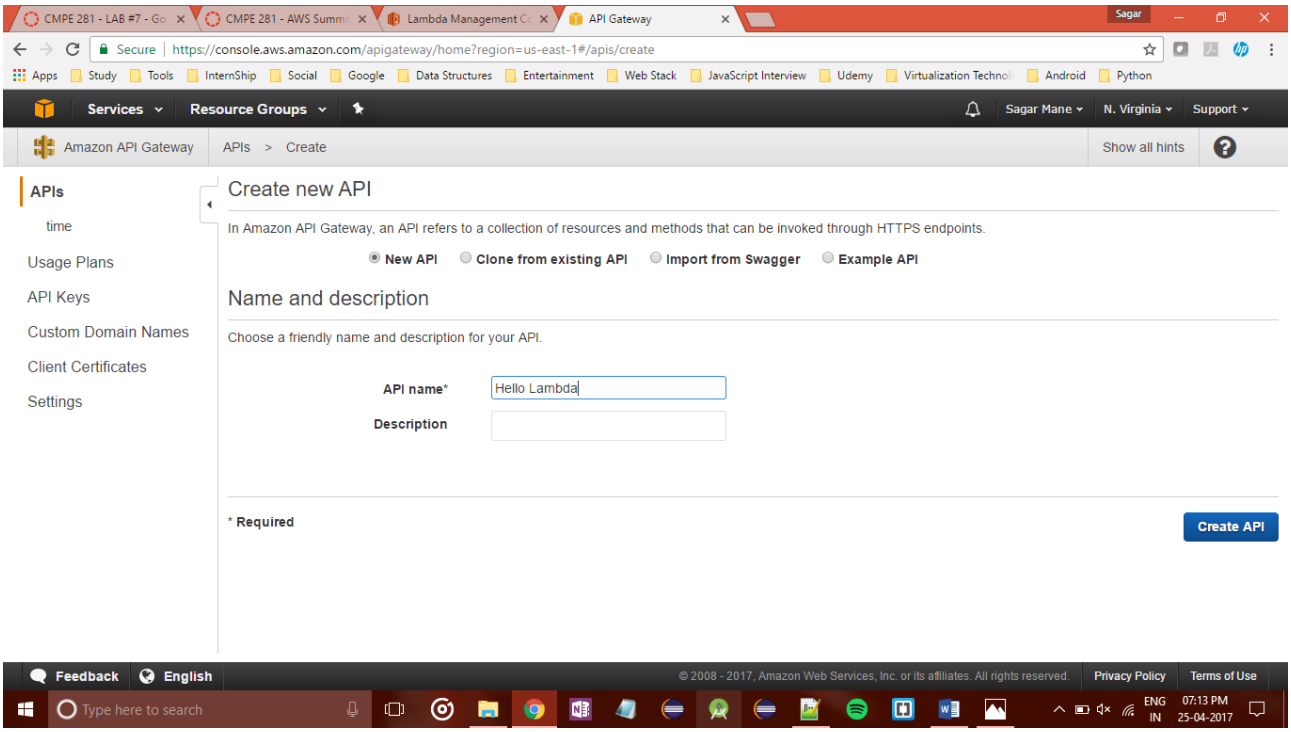
AWS API Gateway acts as a “front door” for applications to access data, business logic, or functionality from your back-end services, such as workloads running on Amazon Elastic Compute Cloud (Amazon EC2), code running on AWS Lambda, or any Web application.

Amazon API Gateway handles all the tasks involved in accepting and processing up to hundreds of thousands of concurrent API calls, including traffic management, authorization and access control, monitoring, and API version management.

Let’s get started:

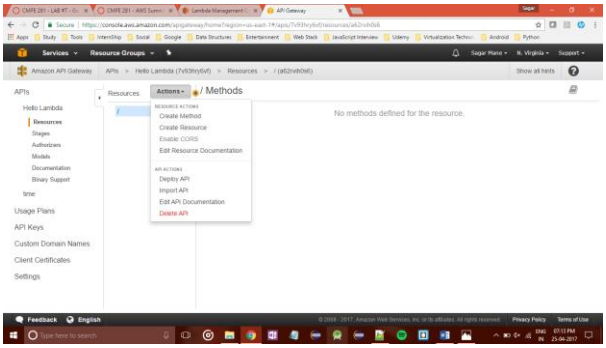
1. Create New API

   Give API name and optional description. Hit create API



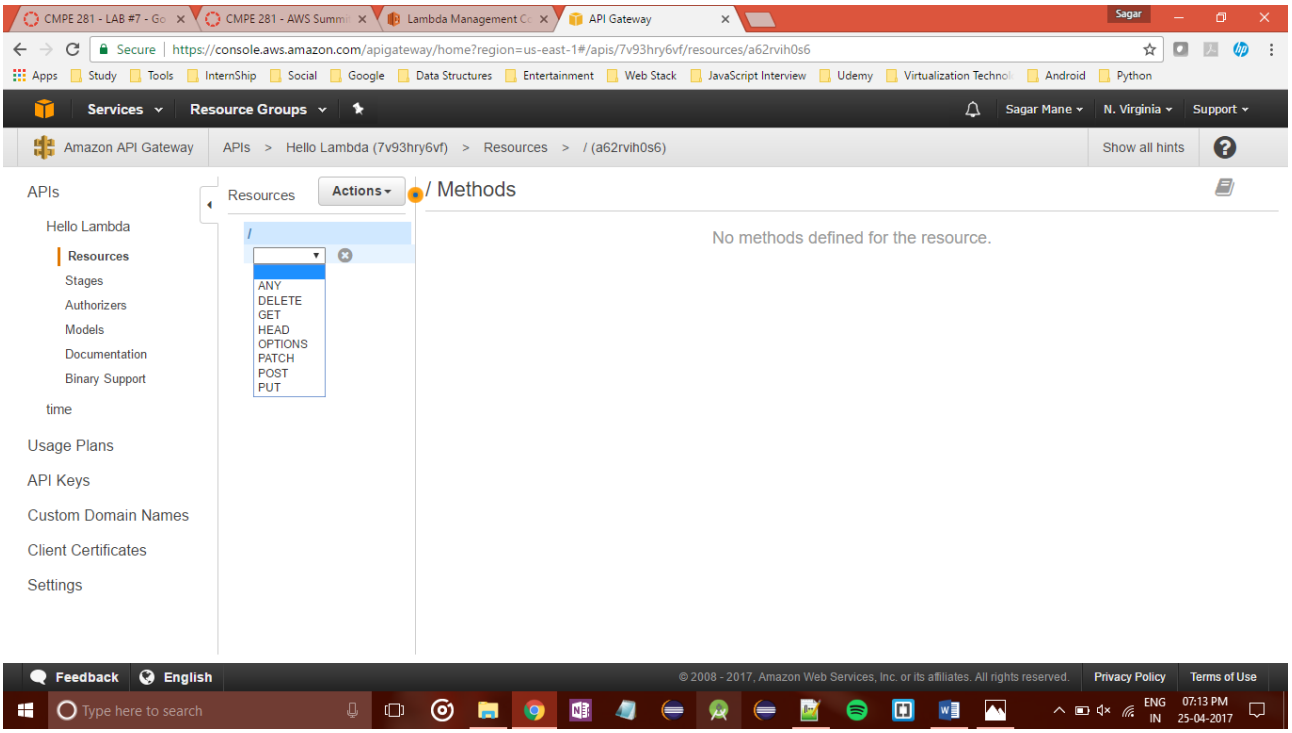
2. Create Methods

   Create http methods E.g. We will need http get to invoke hello lambda function.



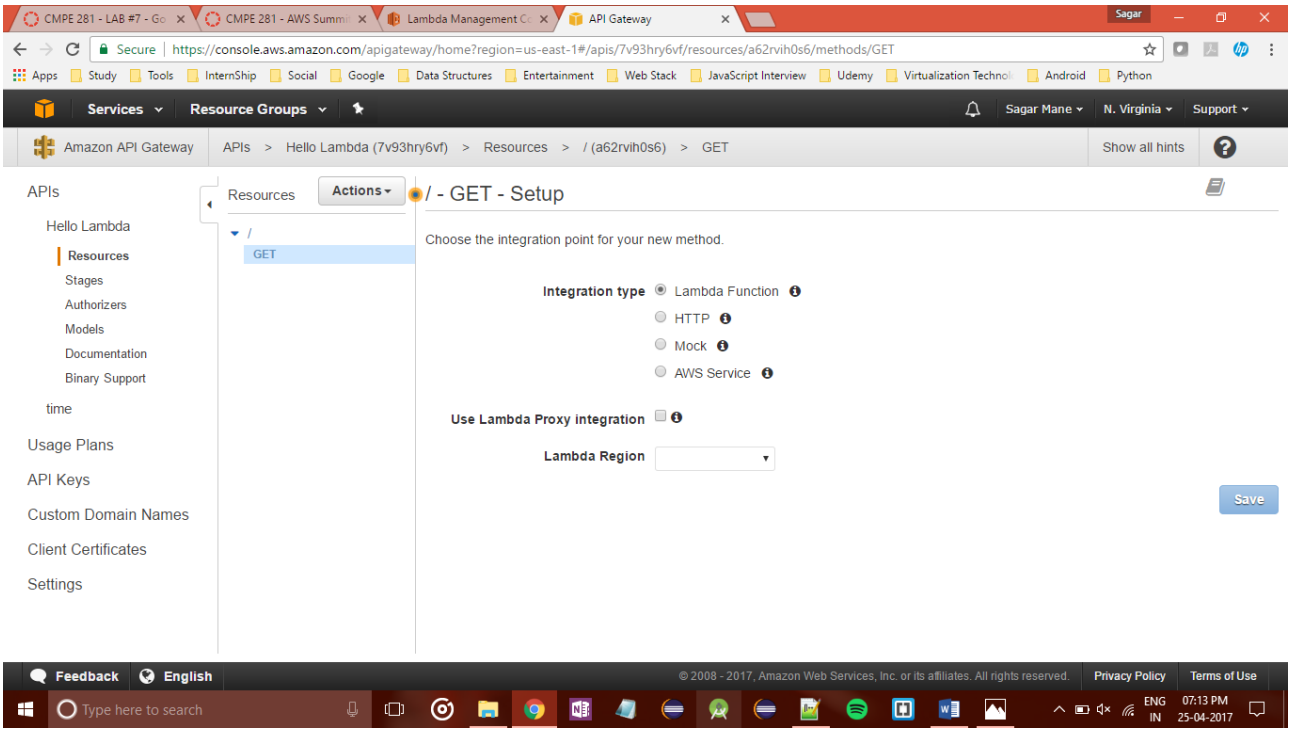
3. Method Options

You can choose http method depending on your functionality i.e. Depending on your backend function. In our example, we are using http get.



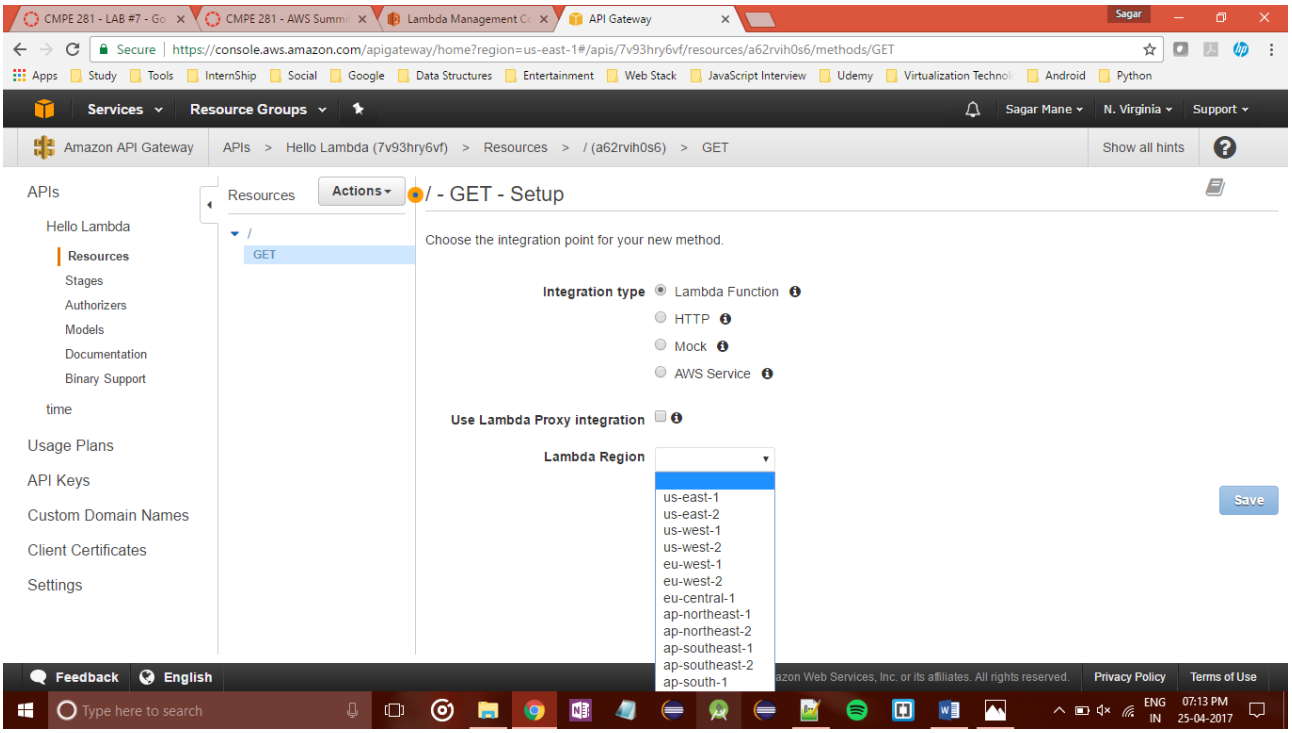
4. Setup HTTP Method

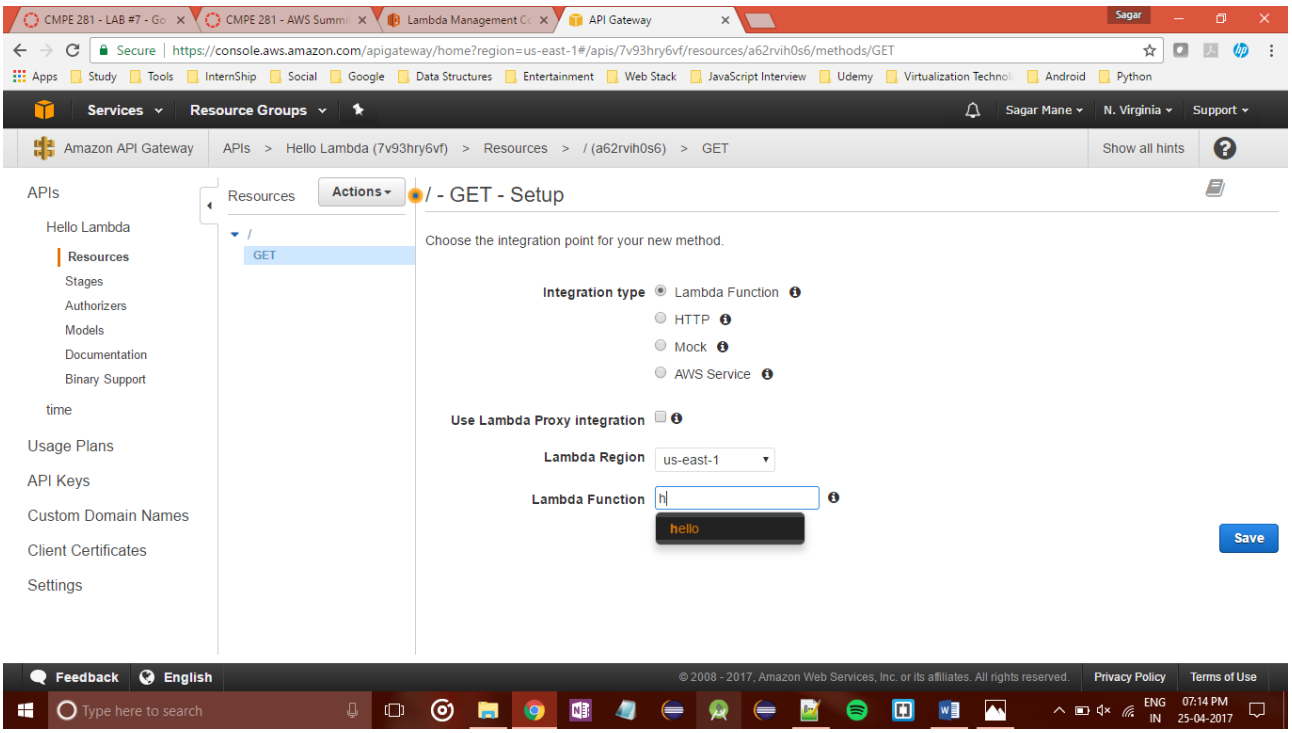
Choose integration type -> Lambda Function. Choose Region.



5. Choose Lambda Function

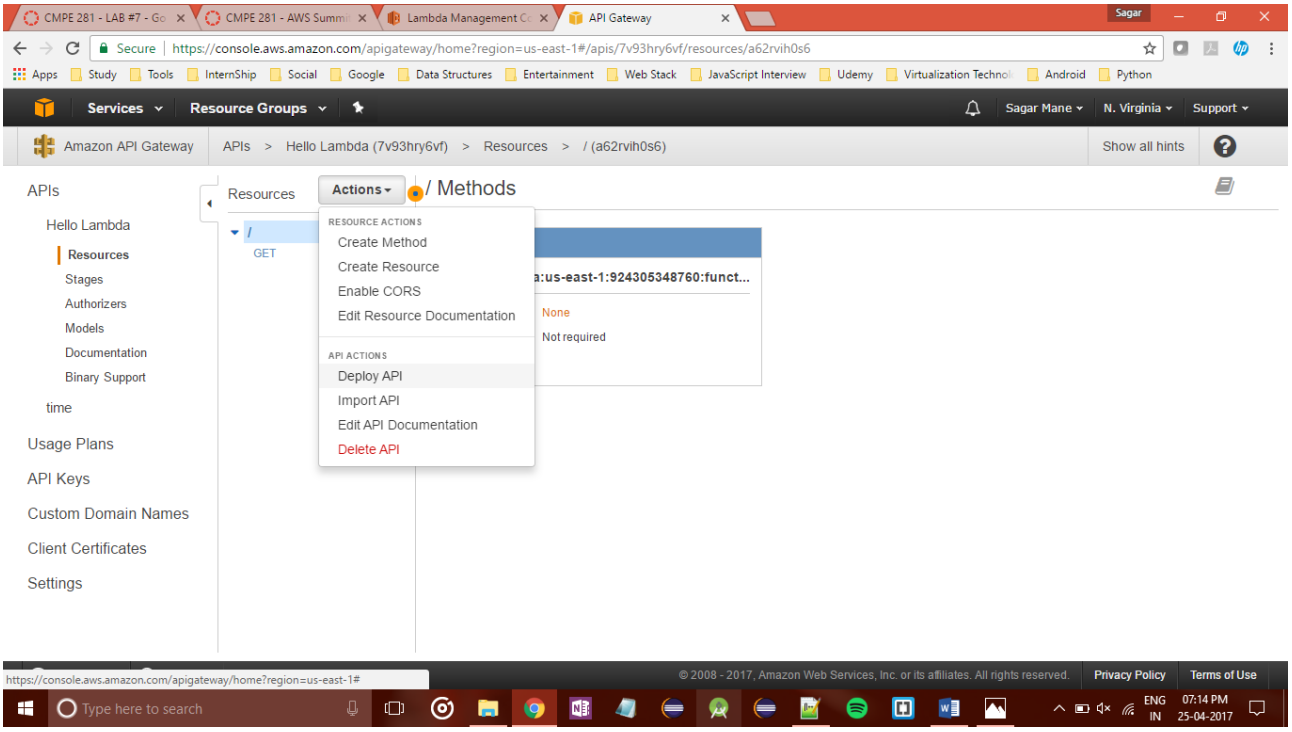
   Choose the function to invoke. When you choose Region you, you will see your lambda functions in that region.

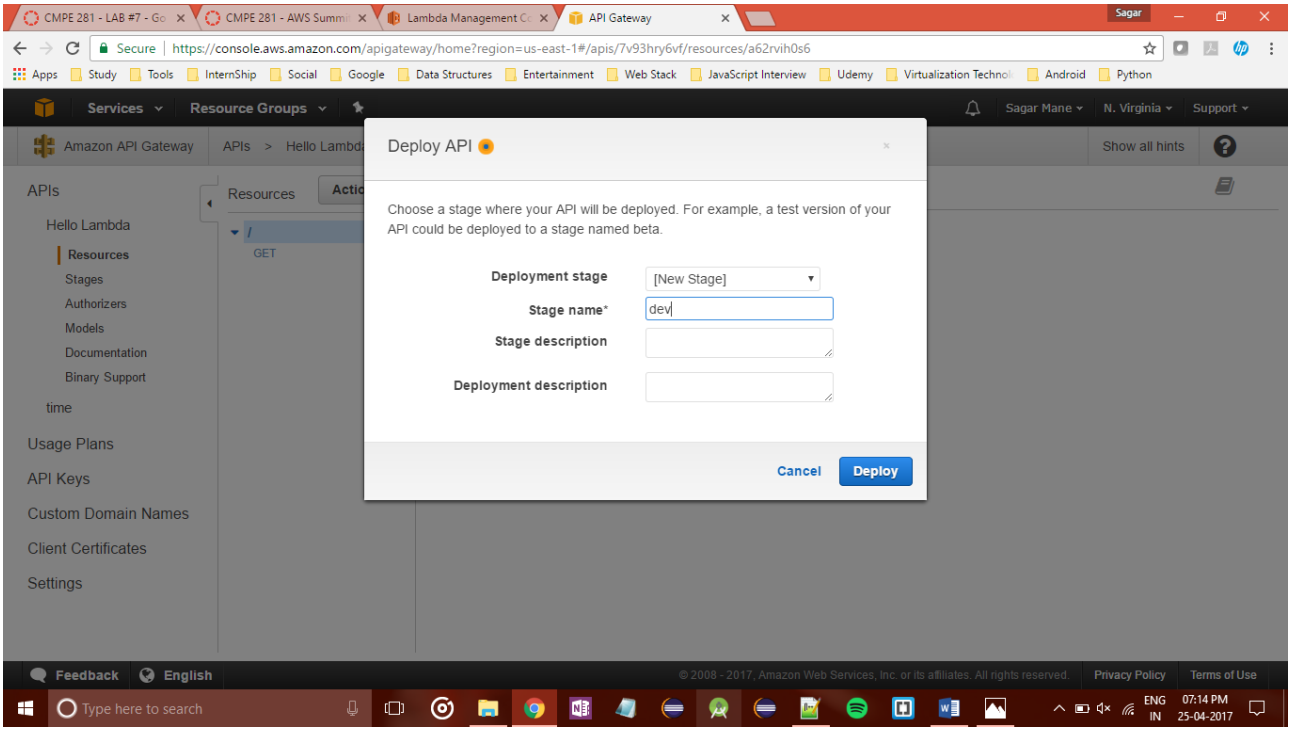


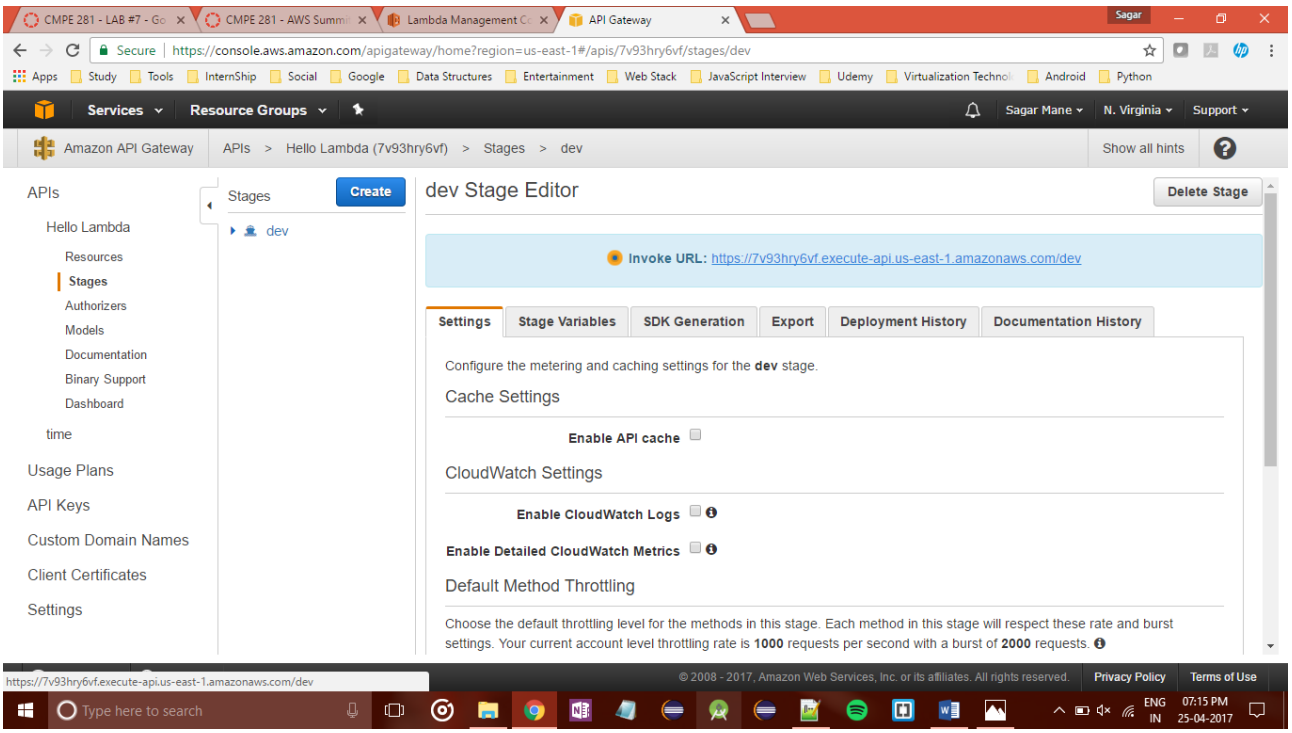


6. Deploy API

Choose deploy API from actions tab. Select Deployment stage, Give stage name, description etc.

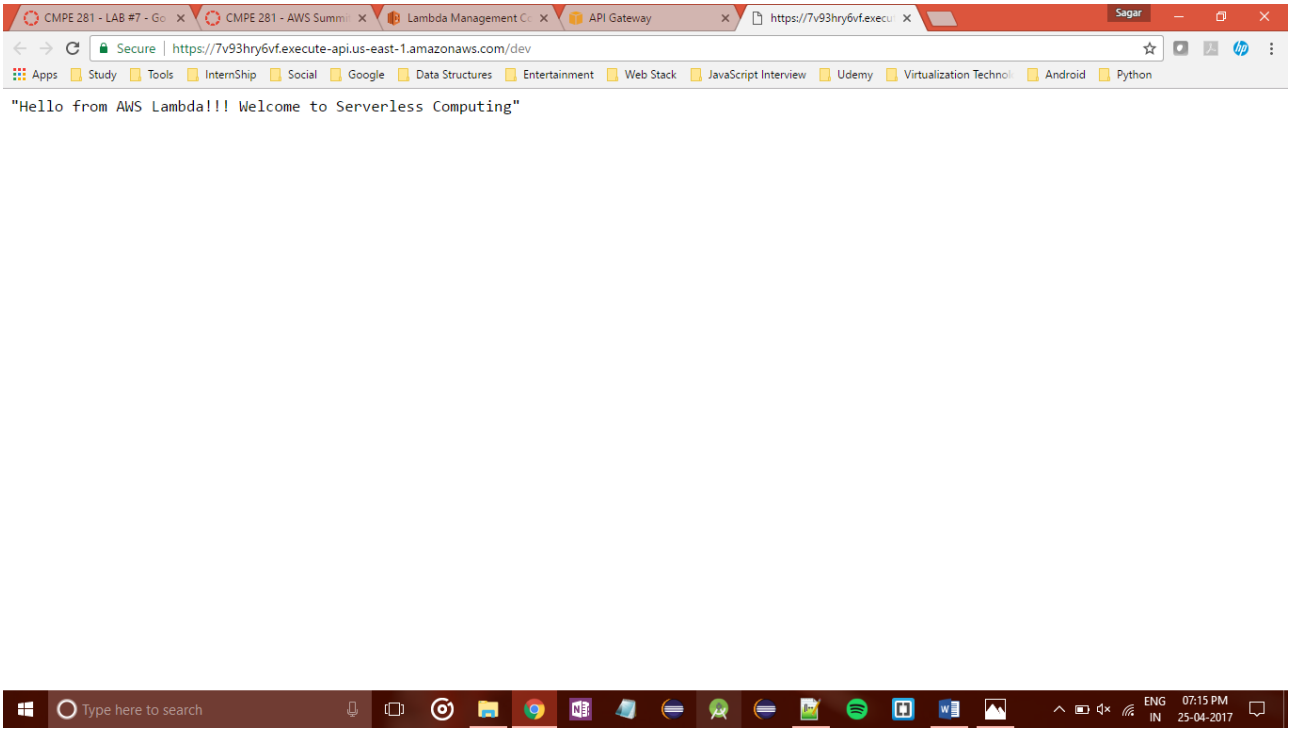






When API gets deployed you will see Invoke URL
Hit the URL and you will get in return response from our lambda function

Final Output



In this way, you can build server less applications using AWS lambda service.
AWS will take care of all the overheads in setting up servers handling them and all related tasks.