AWS Lambda

AWS Lambda is a serverless computing service that lets you run code without managing servers. You write and deploy code, and Lambda handles the *execution*, *scaling*, and *infrastructure management*.
You only pay for the compute time used.

Advantages of Lambda

1. Serverless Architecture: No need to manage or provision servers.
2. Cost-Effective: Pay only for the compute time your code runs.
3. Scalability: Automatically scales to handle changes in workload.
4. Event-Driven: Can be triggered by various AWS services or HTTP requests.
5. Flexibility: Supports multiple programming languages.
6. Easy Integration: Seamlessly integrates with other AWS services.
7. Reduced Administrative Overhead: No server maintenance or patching required.

Lab Steps

Task 1 :- Sign in to AWS Management Console

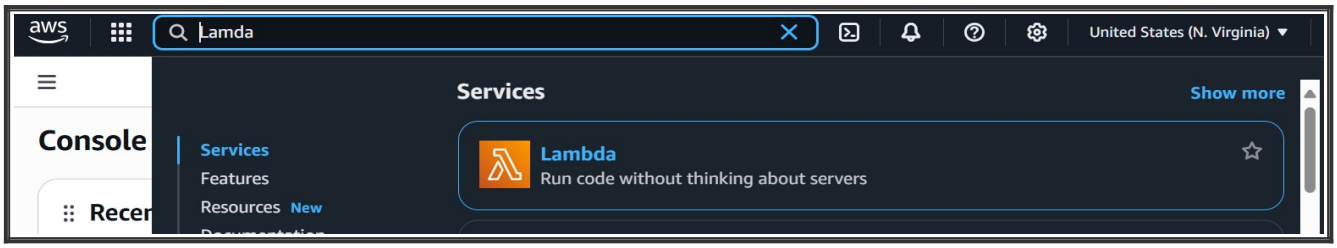
1. Click on the **Open Console** button, and you will get redirected to AWS Console in a new browser tab.
2. On the AWS sign-in page,
   - Leave the Account ID as default. Never edit/remove the 12 digit Account ID present in the AWS Console. otherwise, you cannot proceed with the lab.
   - Now copy your **User Name** and **Password** in the Lab Console to the **IAM Username and Password** in AWS Console and click on the **Sign in** button.

3.Once Signed In to the AWS Management Console, Make the default AWS Region as **US East (N. Virginia) us-east-1.**

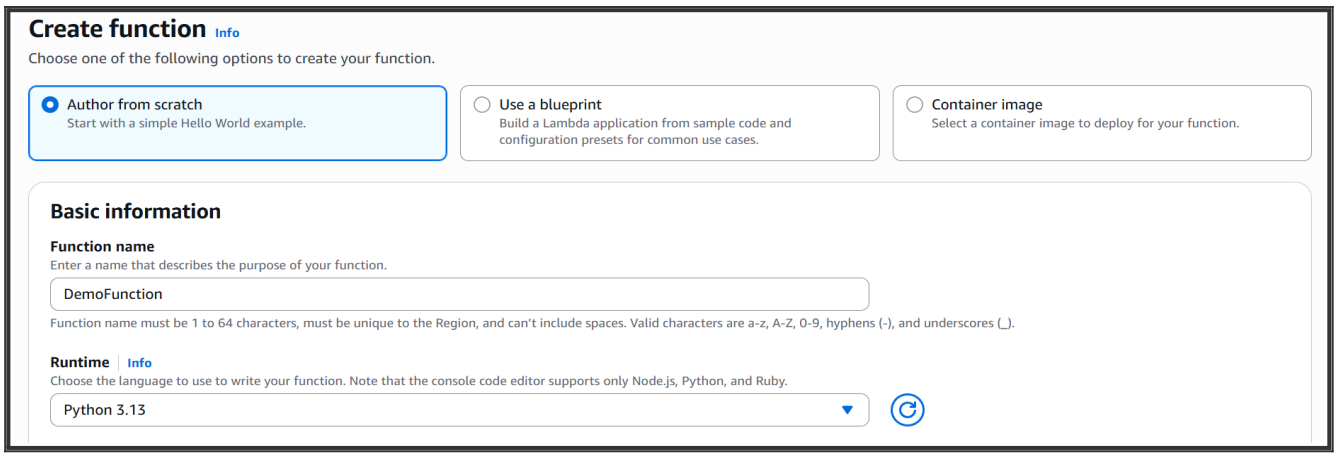
Note:-If you face any issues, please go through FAQs and Troubleshooting for Labs.

Task 2 :- Create a function

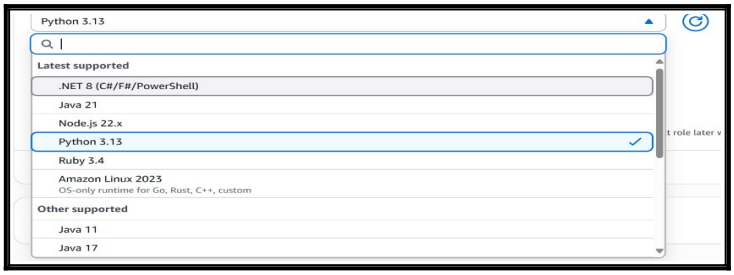
1. Search for Lambda.



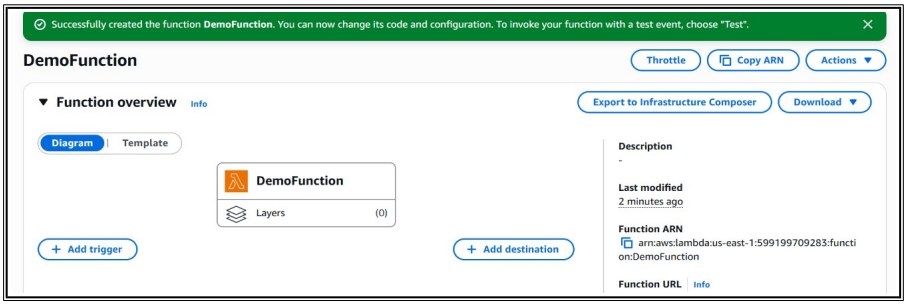
2. Click on **Lambda.**
3. Click on Create function.
4.Choose :- **Author from scratch**
5. Write your function name.
Example:_ DemoFunction
6.Choose the language to use to write your function in **Runtime**.
Example :- we are going for **Python** here



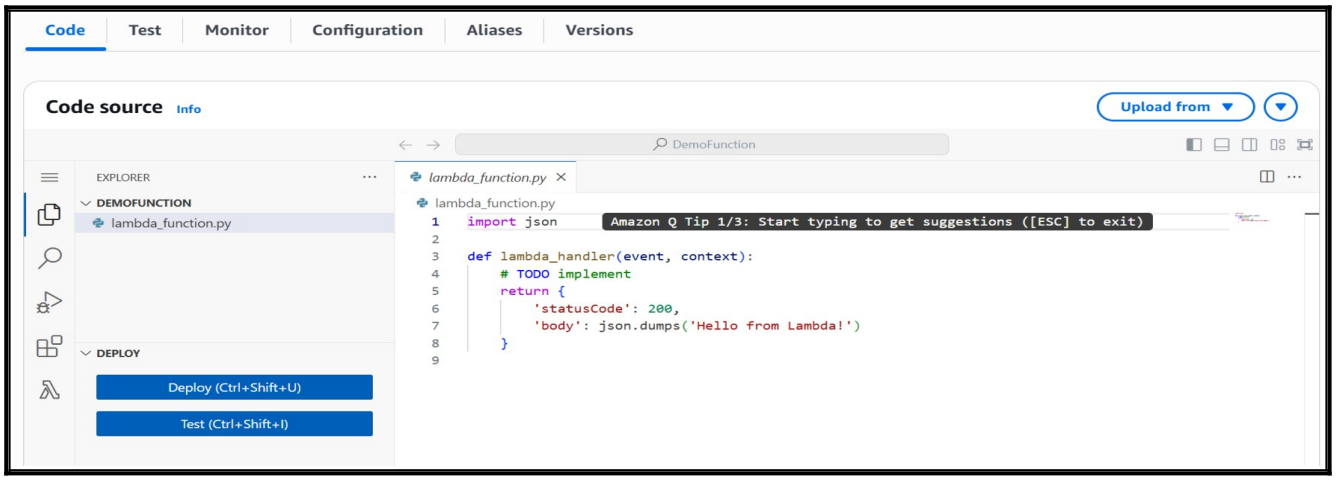
Note: There are many language options available here, so you can choose any of them as per your convenience.



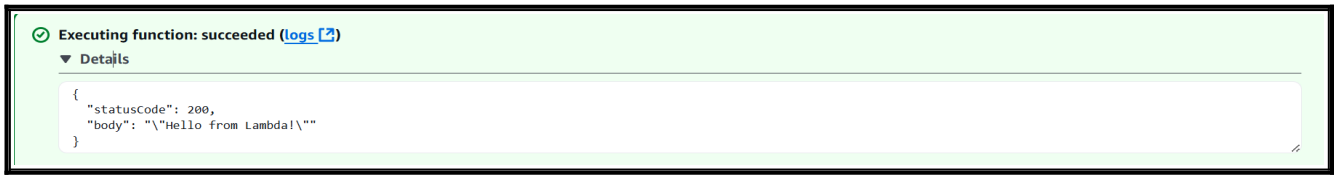
7. Choose **x84_64** in **Architecture**
8. In **Execution role:- Create a new role with basic Lambda permissions**
9. Leave the rest as **default** and click on **create function**.
10. **Function is successfully created.**



11. Go to **code** tab.
12. Here the default code will be written which will print **Hello from lambda!**

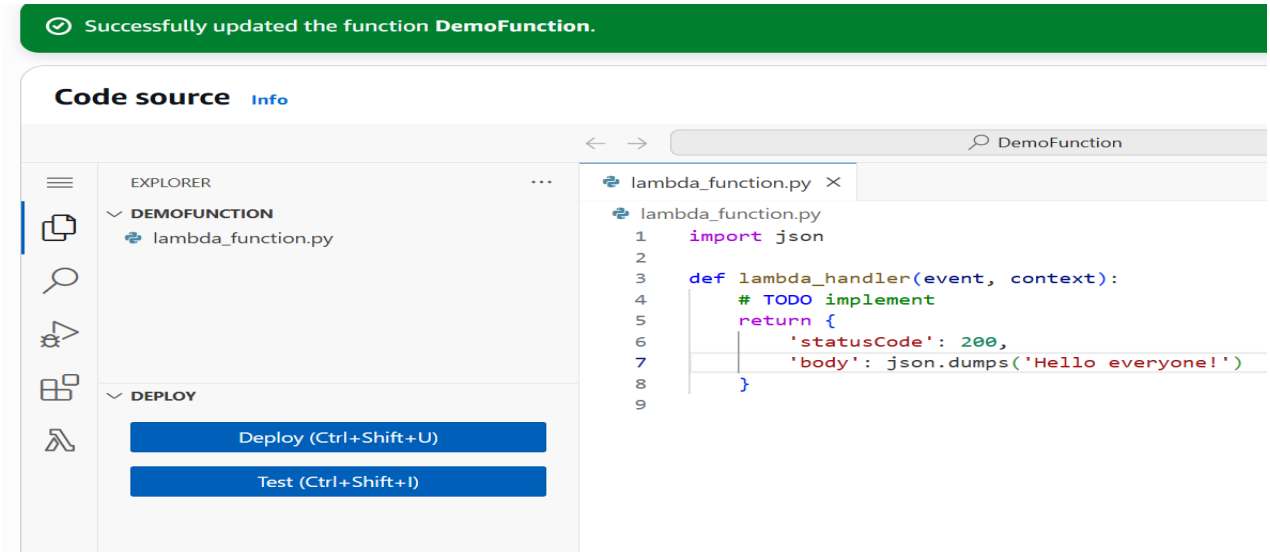


13. Now go to the **Test** tab to see the output of the written code.
14.Click on Test.

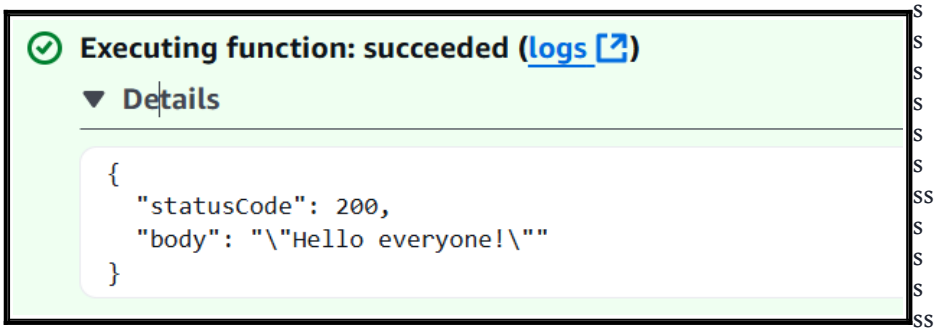


What if we need to return something other than “Hello from Lambda!” ?

1. Change Hello from Lambda! To Hello everyone! .
2.Doing this will not give any output, we will have to **deploy** it after this.
3. Click on Deploy.



4. This will be output :-



5.Now we will modify this code further

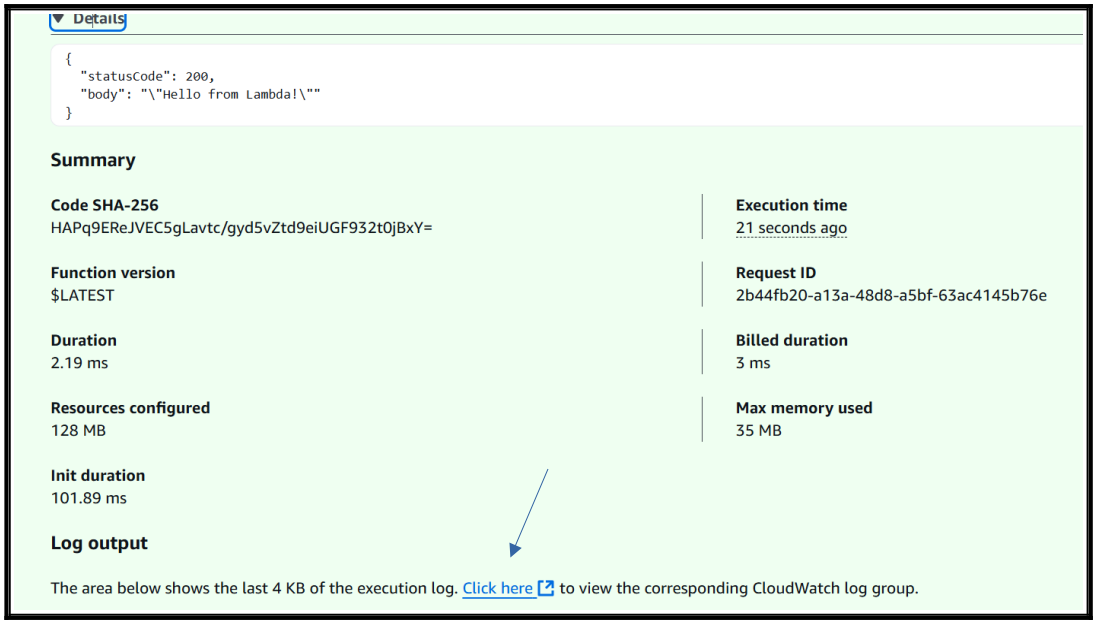
lambda_function.py

```python
import json

def lambda_handler(event, context):
    # TODO implement
    print("Hello Everyone!")
    return {
        'statusCode': 200,
        'body': json.dumps('Hello from Lambda!')
    }
```

- But there will be no output of print.

  For that we need to click on click here option after clicking on test.



6.We will go to **CloudWatch** where we will see our output.