

Deployment of python API on AWS

Abstract:

In this project, we are creating a RESTful API for all the micro-services which would be created by various developers working on a project. We want only the foreign developers (developers using other's code) to access our API instead of foreign code.

We would be creating an API by using Flask and FastAPI frameworks and these API's run concurrently and does parallelism so that all developers can complete their given task. In this project, we don't want foreign developers to exploit the foreign code (code written by others) and thus code synchronising will be taken care of our API.

Existing System:

For startups to create a server infrastructure, it would not be possible for them to maintain or manage servers in terms of financial and technical aspects. Thus, code will be shared among developers and code exploitation will be the scenario.

To overcome that scenario, we are proposing a new tailored system where code synchronisation will be taken care of us and containers will be running on our AWS server. Their job is to take data from our API and use it in their task.

Proposed System:

For demonstration of such scenario, we would be creating a micro-services-based application where we would be deploying the tasks individually in our AWS, and we try to bind the web application and android communicate to that.

Software Tools:

1. AWS EC2
2. AWS IAM
3. CLI
4. Boto3
5. Lambda
6. CloudWatch
7. VS code
8. App Inventor

Hardware Tools:

1. Laptop

2. OS - Windows/Linux/Unix/MAC
3. RAM - 16GB
4. ROM - 4GB
5. Smart Phone
6. Speed Internet Connectivity