

EE4221 Lab 5 - Introduction to Lambda and Elastic Beanstalk

Checkpoints and Lab Assignments

This worksheet supplements the lab activities and provides additional checkpoints to verify your learning outcomes. Extended tasks are provided to guide students to explore more in-depth knowledge. Follow the instructions below to complete each checkpoint and explain your results in the lab report.

Part A – ACF Activity: AWS Lambda: Task 1 to 4

Checkpoint 1:

(Task 1 to Task 4) Wait for a while until you can see the **CloudWatch** metrics in the **Monitoring** section for a period of 15 minutes. Show the three charts below for the Lambda function **myStopinator** and briefly describe your observation.

- Invocations
- Duration
- Error count and success rate (%)

Checkpoint 2:

(Extended) You are asked to create a Lambda function to start the EC2 instance (**instance 1**) at 6:30am on every Monday and Wednesday. Explain your answers for the following questions briefly.

- a) Can you use the same IAM role **myStopinatorRole** to start the EC2 instance?
- b) Show the Cron expression for the Trigger.
- c) Show the Lambda function code for the start function.

Part B – ACF Activity: AWS Elastic Beanstalk: Task 1 to 3

Checkpoint 3:

(Task 1 to Task 3) Explore the resources created by Elastic Beanstalk. Draw an architecture diagram to illustrate the placement of the VPC, Availability Zones, subnets, EC2 instances and load balancer. Label your diagram with the IPv4 CIDR of the VPC and subnets as well as the availability zone IDs. Can you access the two instances with their public DNS or IP address (not via ELB)? Explain briefly.

Checkpoint 4:

(Extended) Modify the sample Java application by adding your name and SID as shown below and re-deploy the application again. In the deployment setting, explain the differences between “Rolling” and “Rolling with additional batch”.

