

Cloud Computing

Programming Assignment - 3

➤ Local Evaluation

Throughput:

Sleep 0 for 10000 tasks

```
compileQueingService:
  [mkdir] Created dir: /home/ubuntu/QueingService/build/classes
  [javac] /home/ubuntu/QueingService/build.xml:29: warning: 'includeantruntime'
  ' was not set, defaulting to build.sysclasspath=last; set to false for repeatabl
  e builds
  [javac] Compiling 7 source files to /home/ubuntu/QueingService/build/classes

runQueingServiceJar:
  [mkdir] Created dir: /home/ubuntu/QueingService/build/jar
  [jar] Building jar: /home/ubuntu/QueingService/build/jar/QueingService.jar

runQueingService:
  [java] Error: Could not find or load main class
  [java] Java Result: 1

main:

BUILD SUCCESSFUL
Total time: 2 seconds
ubuntu@ip-172-31-28-26:~/QueingService$ clear

ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar
edu.executor.ExecuteTask -s LOCAL t 1 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 10000
Workers Started...
***** Total time for executing all task = 1096 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar
edu.executor.ExecuteTask -s LOCAL t 2 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 10000
Workers Started...
***** Total time for executing all task = 1222 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar
edu.executor.ExecuteTask -s LOCAL t 4 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 10000
Workers Started...
***** Total time for executing all task = 1114 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar
edu.executor.ExecuteTask -s LOCAL t 8 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 10000
Workers Started...
***** Total time for executing all task = 1046 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar
edu.executor.ExecuteTask -s LOCAL t 16 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 10000
Workers Started...
***** Total time for executing all task = 1557 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ cd resources/
ubuntu@ip-172-31-28-26:~/QueingService/resources$ rm workloadFile
ubuntu@ip-172-31-28-26:~/QueingService/resources$ ls
config.properties
ubuntu@ip-172-31-28-26:~/QueingService/resources$ cd ..
ubuntu@ip-172-31-28-26:~/QueingService$
```

Efficiency:

1000 task of deep Sleep 10 ms for 1,2,4,8,16 Threads

```

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  [mkdir] Created dir: /home/ubuntu/QueingService/build/classes
  [javac] /home/ubuntu/QueingService/build.xml:29: warning: 'includeantruntime'
  ' was not set, defaulting to build.sysclasspath=last; set to false for repeatabl
  e builds
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runQueingService:
  [java] Error: Could not find or load main class
  [java] Java Result: 1

main:

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edu.executor.ExecuteTask -s LOCAL t 16 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 10000
Workers Started...
***** Total time for executing all task = 1557 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ cd resources/
ubuntu@ip-172-31-28-26:~/QueingService/resources$ rm workloadFile
ubuntu@ip-172-31-28-26:~/QueingService/resources$ ls
config.properties
ubuntu@ip-172-31-28-26:~/QueingService/resources$ cd ..
ubuntu@ip-172-31-28-26:~/QueingService$ █

```

100 task of Sleep 1000 ms for 1,2,4,8,16 Threads

```
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 1 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 100
Workers Started...
***** Total time for executing all task = 100091 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ vi ./resources/config.properties
ubuntu@ip-172-31-28-26:~/QueingService$ rm ./resources/workloadFile
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.utility.TaskCreation
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 2 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 200
Workers Started...
***** Total time for executing all task = 100114 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ vi ./resources/config.properties
ubuntu@ip-172-31-28-26:~/QueingService$ rm ./resources/workloadFile
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.utility.TaskCreation
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 4 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 400
Workers Started...
***** Total time for executing all task = 100190 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ vi ./resources/config.properties
ubuntu@ip-172-31-28-26:~/QueingService$ rm ./resources/workloadFile
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.utility.TaskCreation
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 8 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 800
Workers Started...
***** Total time for executing all task = 100270 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ vi ./resources/config.properties
ubuntu@ip-172-31-28-26:~/QueingService$ rm ./resources/workloadFile
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.utility.TaskCreation
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 16 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 1600
Workers Started...
***** Total time for executing all task = 100385 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$
```

10 task of Sleep 10000 ms for 1,2,4,8,16 Threads

```
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 1 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 10
Workers Started...
***** Total time for executing all task = 100039 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ vi ./resources/config.properties
ubuntu@ip-172-31-28-26:~/QueingService$ rm ./resources/workloadFile
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.utility.TaskCreation
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 2 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 20
Workers Started...
***** Total time for executing all task = 100029 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ vi ./resources/config.properties
ubuntu@ip-172-31-28-26:~/QueingService$ rm ./resources/workloadFile
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.utility.TaskCreation
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 4 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 40
Workers Started...
***** Total time for executing all task = 100062 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ vi ./resources/config.properties
ubuntu@ip-172-31-28-26:~/QueingService$ rm ./resources/workloadFile
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.utility.TaskCreation
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 8 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 80
Workers Started...
***** Total time for executing all task = 100201 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$ vi ./resources/config.properties
ubuntu@ip-172-31-28-26:~/QueingService$ rm ./resources/workloadFile
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.utility.TaskCreation
ubuntu@ip-172-31-28-26:~/QueingService$ java -cp ./build/jar/QueingService.jar edu.executor.ExecuteTask -s LOCAL t 16 -w ./resources/workloadFile
Started Adding Jobs...
Total task added by Client = 160
Workers Started...
***** Total time for executing all task = 100090 milliseconds*****
ubuntu@ip-172-31-28-26:~/QueingService$
```

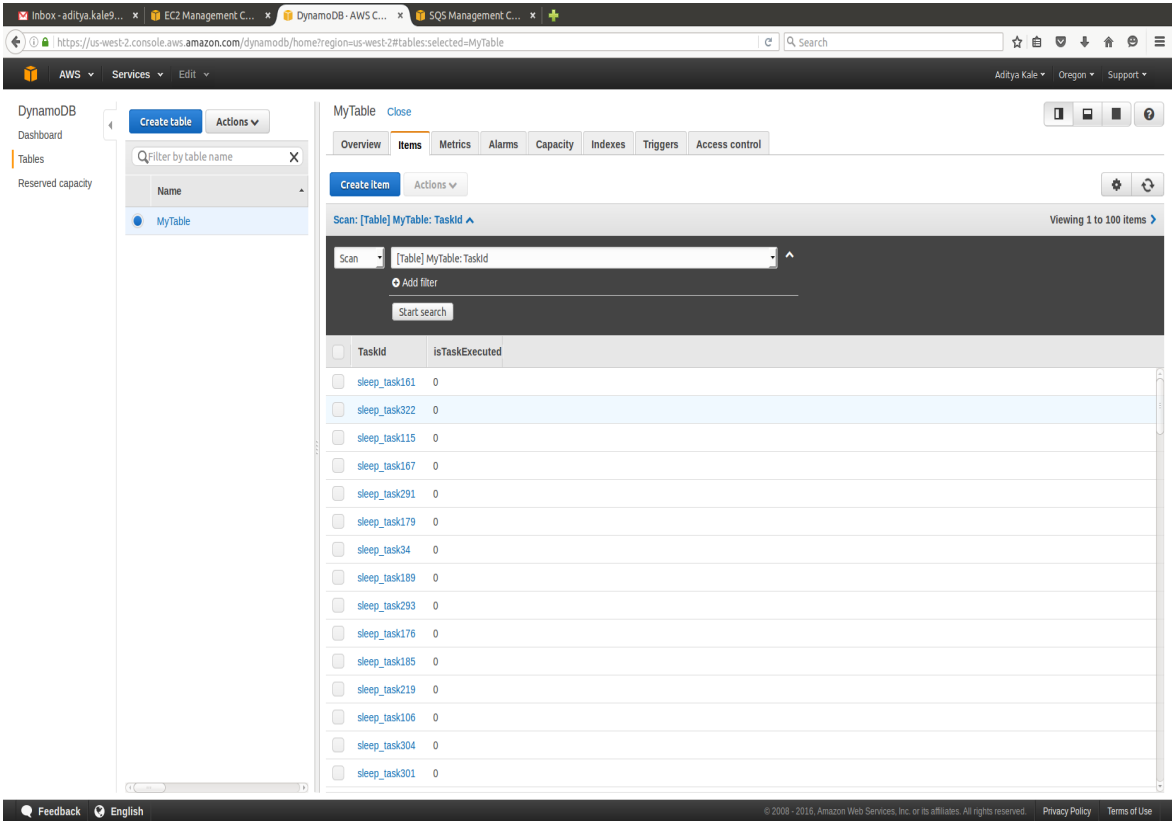
➤ Remote Evaluation

Table Creation and Queue Initialization using Setup

```
ubuntu@ip-172-31-28-26: ~/CloudKon
ubuntu@ip-172-31-28-26:~/CloudKon$ ls
bin  build.xml  cloudkon.jar  cloudKon.jar  resources  src
ubuntu@ip-172-31-28-26:~/CloudKon$ java -cp cloudKon.jar edu.initialize.Setup
Created Table: {AttributeDefinitions: [{AttributeName: TaskId,AttributeType: S}],
,TableName: MyTable,KeySchema: [{AttributeName: TaskId,KeyType: HASH}],TableStat
us: CREATING,CreationDateTime: Sat Apr 30 22:24:15 UTC 2016,ProvisionedThroughpu
t: {NumberOfDecreasesToday: 0,ReadCapacityUnits: 1,WriteCapacityUnits: 1},TableS
izeBytes: 0,ItemCount: 0,TableArn: arn:aws:dynamodb:us-west-2:132663363444:table
/MyTable,}
Waiting for MyTable to become ACTIVE...

ubuntu@ip-172-31-28-26:~/CloudKon$ java -cp cloudKon.jar edu.client.Client -S re
questQueue responseQueue -W ./resources/workloadFile
```

DynamoDB Insert into table



Created Queue

Inbox - aditya.kale9...x

EC2 Management C...x

DynamoDB - AWS C...x

SQS Management C...x

+

https://console.aws.amazon.com/sqs/home?region=us-west-2#queue-browser:prefix=

Search

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AWS

Services

Edit

Aditya Kale

Oregon

Support

Create New Queue

Queue Actions

🔄⚙️

Filter by Prefix:

⌂ < 1 to 2 of 2 items > |

<input type="checkbox"/>	Name	URL	Messages Available	Messages in Flight	Created
<input type="checkbox"/>	requestQueue	https://sqs.us-west-2.amazonaws.com/132663363444/requestQueue	9,450	1	2016-04-30 12:31:56 GMT-05:00
<input type="checkbox"/>	responseQueue	https://sqs.us-west-2.amazonaws.com/132663363444/responseQueue	1	548	2016-04-30 12:31:56 GMT-05:00

Feedback

English

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All Running Instances

EC2 Management Console

https://us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#instances:sort=instancetype

AWS Services Edit

Aditya Kale Oregon Support

EC2 Dashboard

Events

Tags

Reports

Limits

INSTANCES

Instances

Spot Requests

Reserved Instances

Scheduled Instances

Commands

Dedicated Hosts

IMAGES

AMIs

Bundle Tasks

ELASTIC BLOCK STORE

Volumes

Snapshots

NETWORK & SECURITY

Security Groups

Elastic IPs

Placement Groups

Key Pairs

Network Interfaces

LOAD BALANCING

Load Balancers

AUTO SCALING

Launch Configurations

Auto Scaling Groups

Launch Instance Connect Actions

Filter by tags and attributes or search by keyword

1 to 17 of 17

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS	Public IP	Key Name	Monitoring	Launch Time
Worker	i-a0dc3666	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-10-118-91.us-w...	52.10.118.91	aditya	disabled	April 30, 2016 at 1:02:16
Worker	i-a1dc3667	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-55-37.us-we...	52.39.55.37	aditya	disabled	April 30, 2016 at 1:02:16
Worker	i-a2dc3664	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-53-235.us-w...	52.39.53.235	aditya	disabled	April 30, 2016 at 1:02:16
	i-a3dc3665	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-239-241.us-...	52.38.239.241	aditya	disabled	April 30, 2016 at 1:02:16
	i-a4dc3662	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-55-188.us-w...	52.39.55.188	aditya	disabled	April 30, 2016 at 1:02:16
	i-a5dc3663	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-10-181-79.us-w...	52.10.181.79	aditya	disabled	April 30, 2016 at 1:02:16
	i-a6dc3660	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-54-96.us-we...	52.39.54.96	aditya	disabled	April 30, 2016 at 1:02:16
	i-a7dc3661	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-55-11.us-we...	52.39.55.11	aditya	disabled	April 30, 2016 at 1:02:16
	i-a8dc3668	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-27-246-106.us-...	52.27.246.106	aditya	disabled	April 30, 2016 at 1:02:16
	i-b8dc367e	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-10-76-16.us-we...	52.10.76.16	aditya	disabled	April 30, 2016 at 1:02:16
	i-b9dc367f	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-55-202.us-w...	52.39.55.202	aditya	disabled	April 30, 2016 at 1:02:16
	i-badc367c	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-53-242.us-w...	52.39.53.242	aditya	disabled	April 30, 2016 at 1:02:16
	i-bbdc367d	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-54-9.us-west...	52.39.54.9	aditya	disabled	April 30, 2016 at 1:02:16
	i-bcdc367a	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-54-61.us-we...	52.39.54.61	aditya	disabled	April 30, 2016 at 1:02:16
	i-bddc367b	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-39-55-205.us-w...	52.39.55.205	aditya	disabled	April 30, 2016 at 1:02:16
	i-bfdc3679	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-38-207-155.us-...	52.38.207.155	aditya	disabled	April 30, 2016 at 1:02:16
Client	i-c5fe1403	t2.micro	us-west-2b	running	2/2 checks ...	None	ec2-52-34-223-36.us-w...	52.34.223.36	aditya	disabled	April 30, 2016 at 10:51:3

Instance: i-c5fe1403 (Client) Public DNS: ec2-52-34-223-36.us-west-2.compute.amazonaws.com

Description

Status Checks

Monitoring

Tags

Instance ID

i-c5fe1403

Public DNS

ec2-52-34-223-36.us-west-2.compute.amazonaws.com

Instance state

running

Public IP

52.34.223.36

Instance type

t2.micro

Elastic IP

-

Private DNS

ip-172-31-28-26.us-west-2.compute.internal

Availability zone

us-west-2b

Private IPs

172.31.28.26

Security groups

Aditya, view rules

Secondary private IPs

-

Scheduled events

No scheduled events

VPC ID

vpc-511a4234

AMI ID

ubuntu-huusty-14.04-amd64-server-20160114.5 (ami-9abea4th)

Subnet ID

subnet-5b3b153e

Platform

-

Feedback

English

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