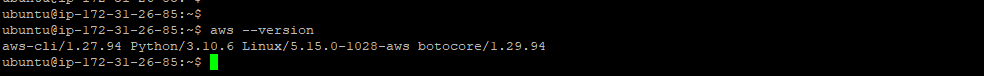
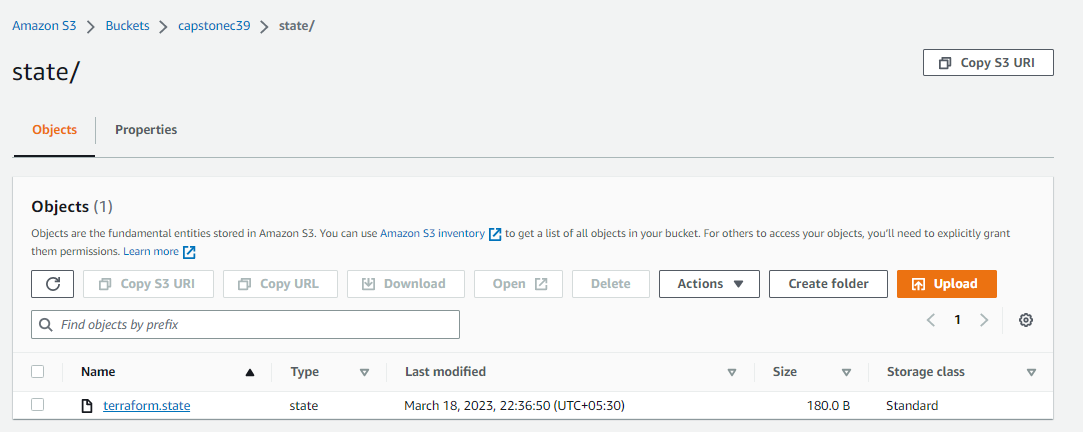
**TASK 1**

**Subtask1:**

**a.AWSCLI:**

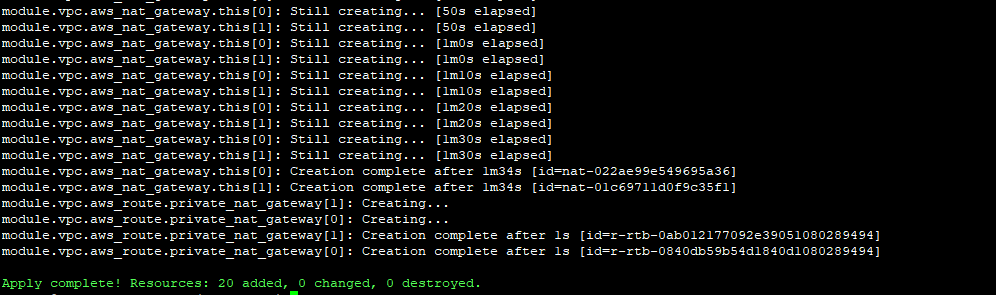
****

**b.S3 Bucket:**

****

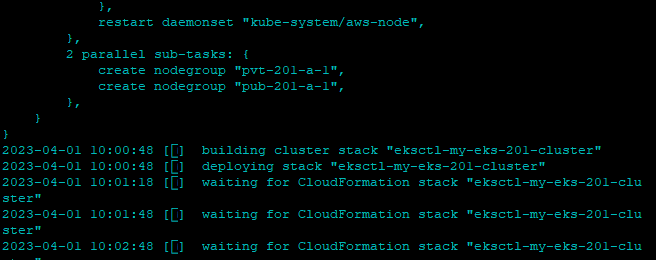
**Subtask 2:**

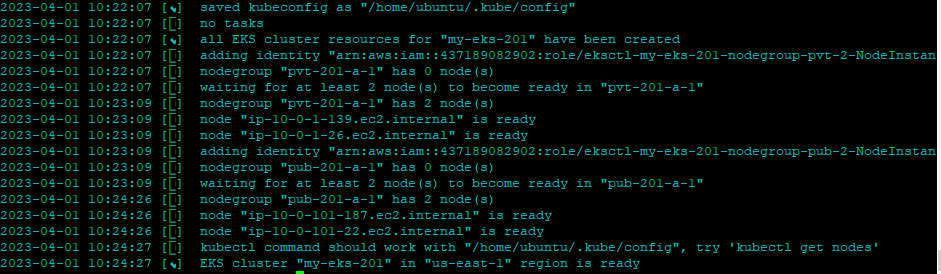
**a. AWS Resource Terraform:**

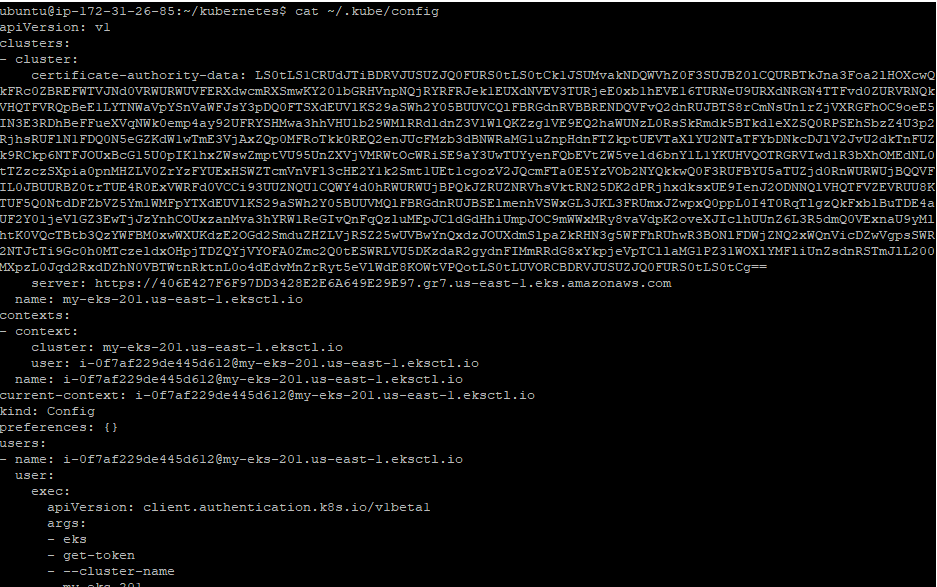
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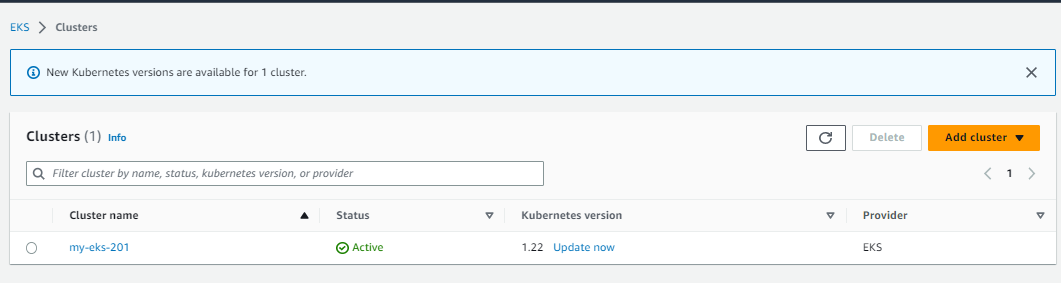
**Subtask 3:**

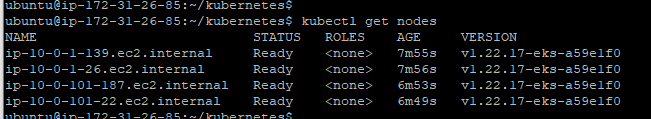
**a. Cluster Creation:**

****

****

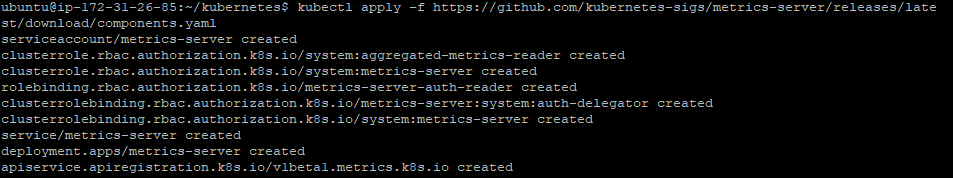
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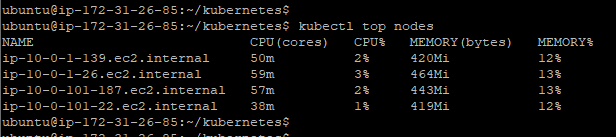
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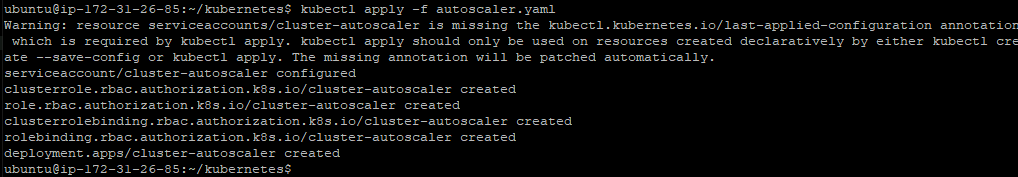
**Subtask 4:**

**a. Kubectl Metrics**

****

****

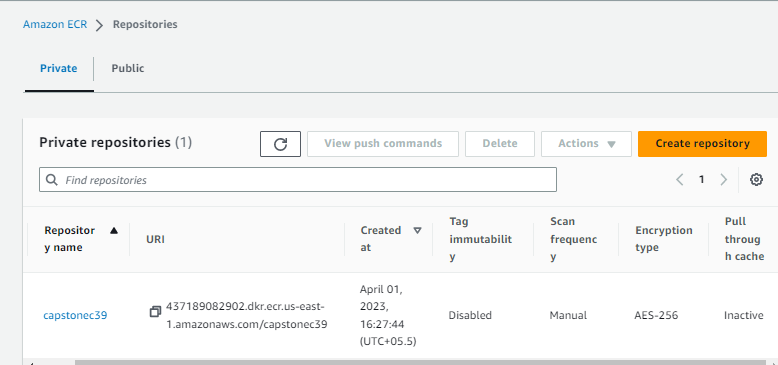
**b. Autoscaler:**

****

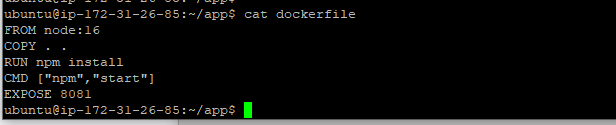
**Task 2**

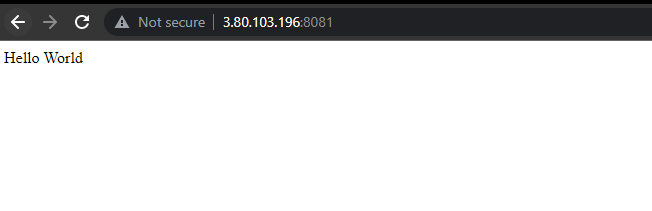
**Subtask 1:**

**a. ECR**

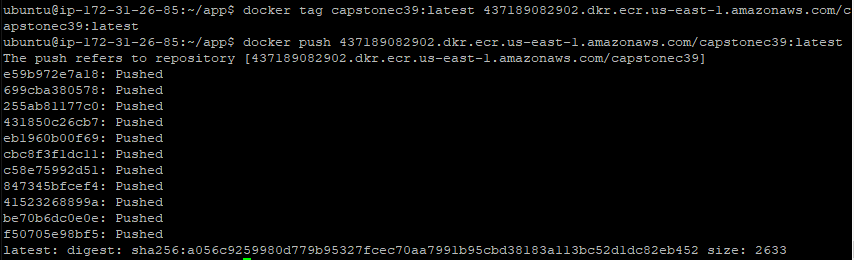
****

**b. Dockerfile**

****

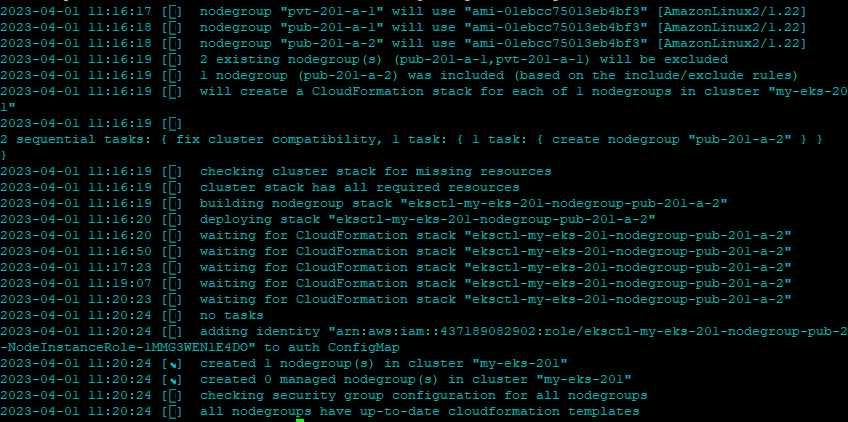
****

**c. Push Image to ECR**

****

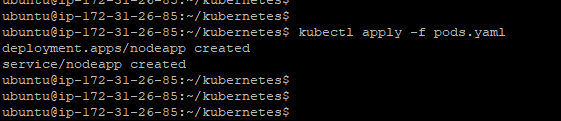
**Subtask 2:**

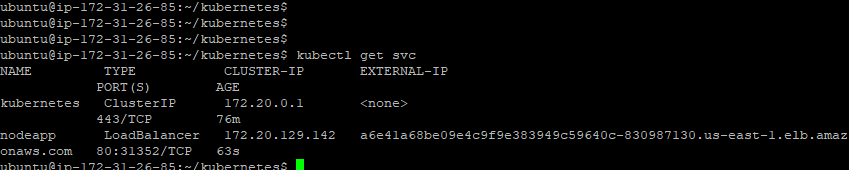
**a. Node Group Creation:**

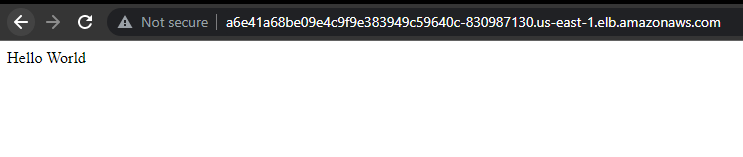
****

**Subtask 3:**

**a. Kube Deployment & Service for App**

****

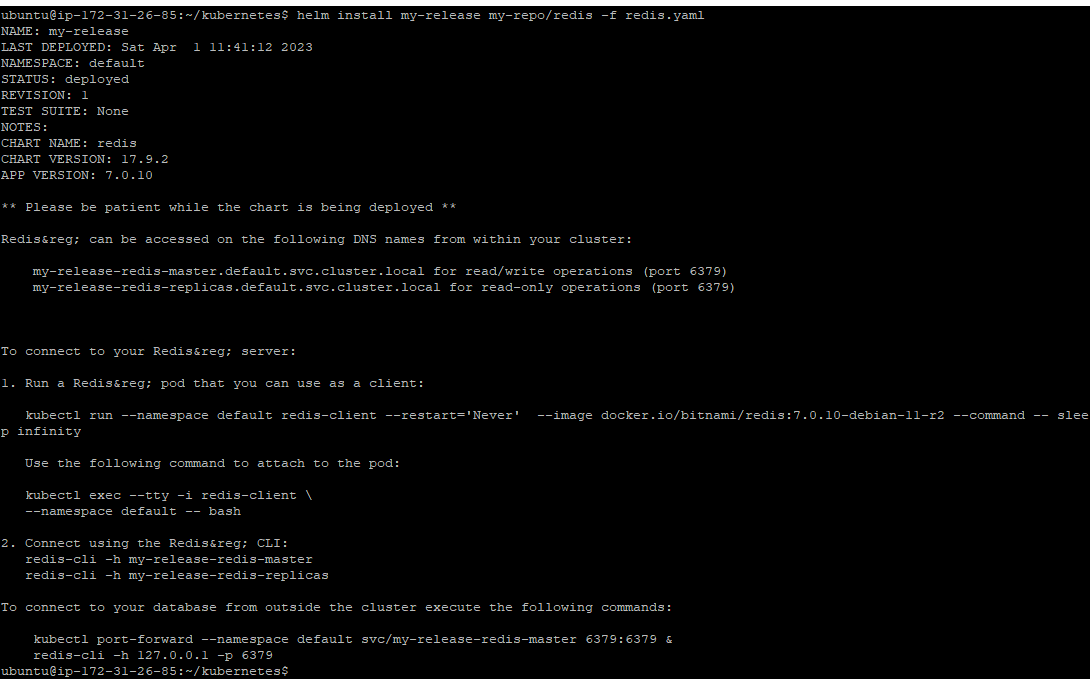
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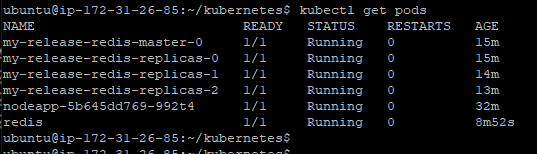
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**Task 3**

**Subtask 1:**

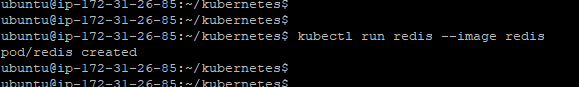
**a. Deploy Redis Server**

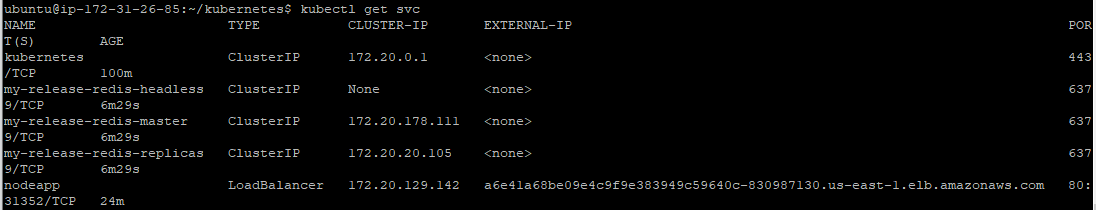
****

****

**Subtask 2:**

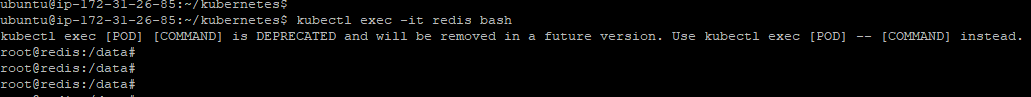
**a. Use Redis Docker Image**

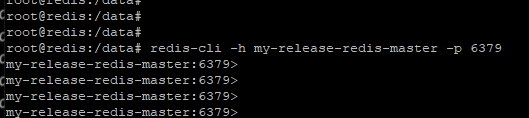
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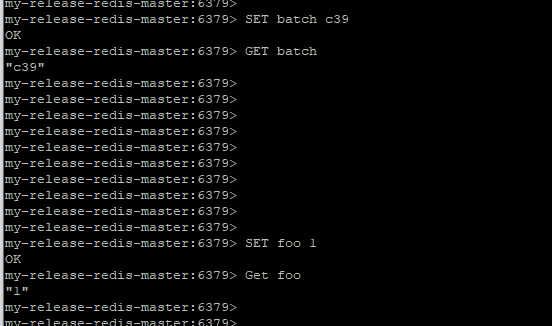
**Subtask 3:**

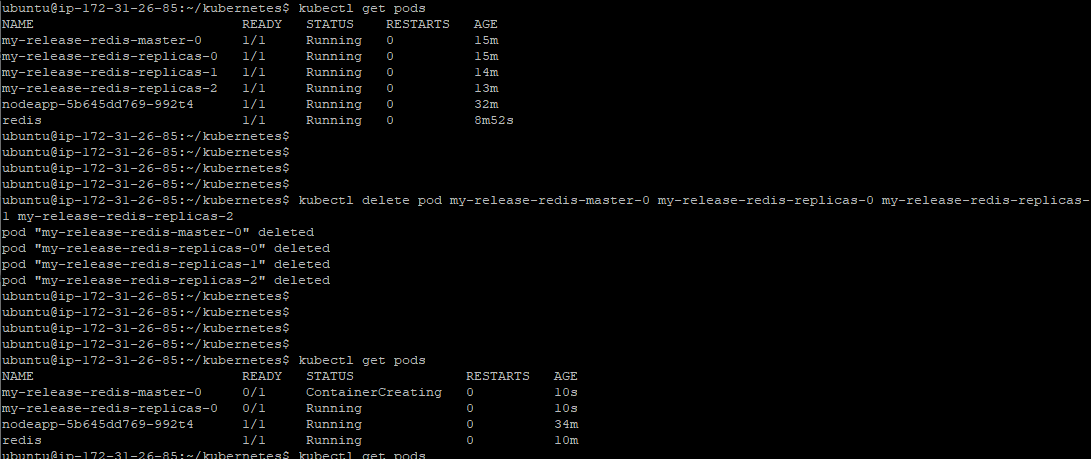
**a. Connect to Redis Server:**

****

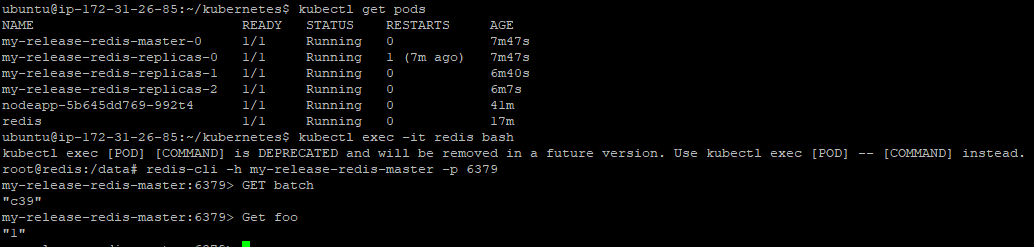
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**b. Store Key-Values:**

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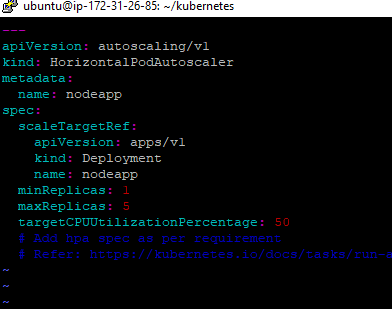
**c. Restart Pod to Verify Key-Value:**

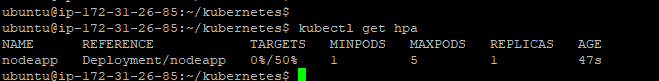
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**Task 4**

**Subtask1:**

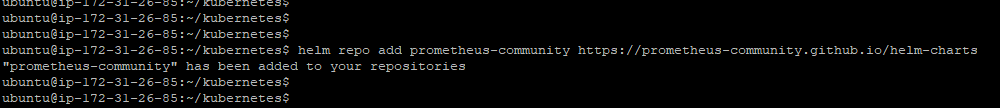
**a. Deploy HPA:**

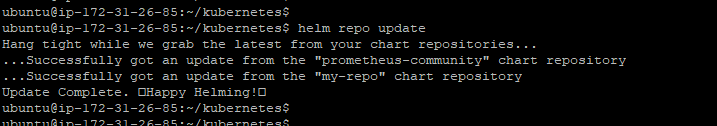
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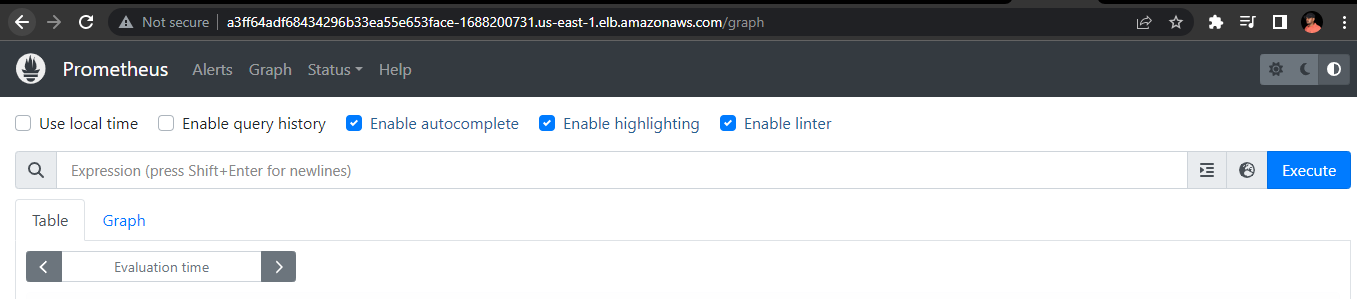
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**Subtask 2:**

**a. Install Prometheus:**

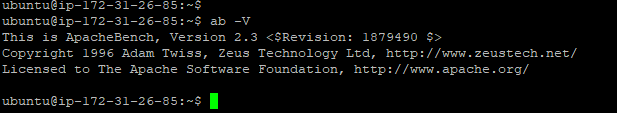
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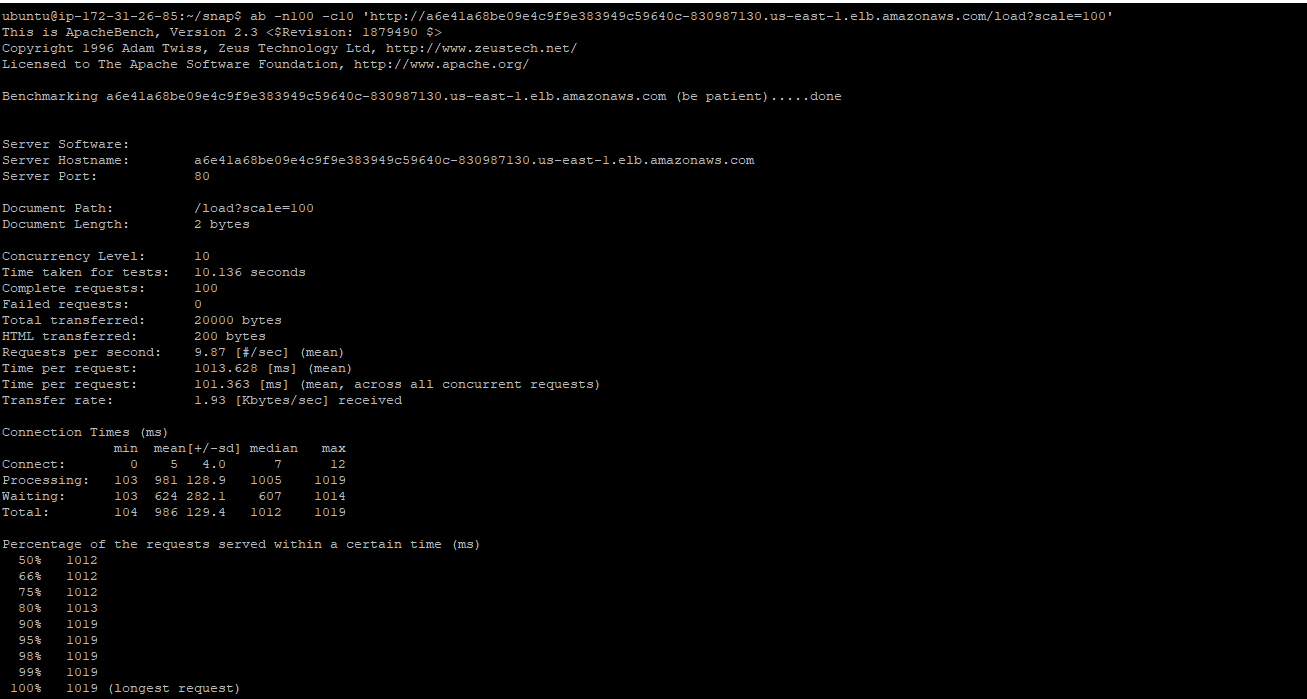
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**Subtask 3:**

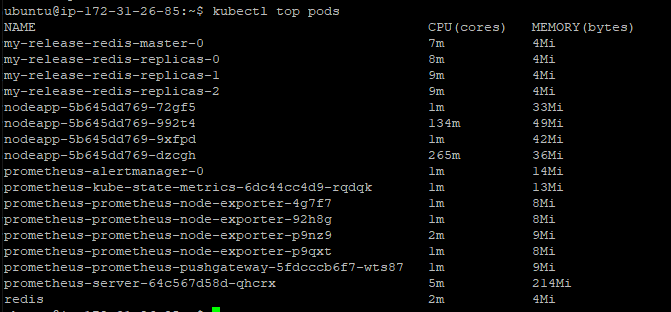
**a. AB Install:**

****

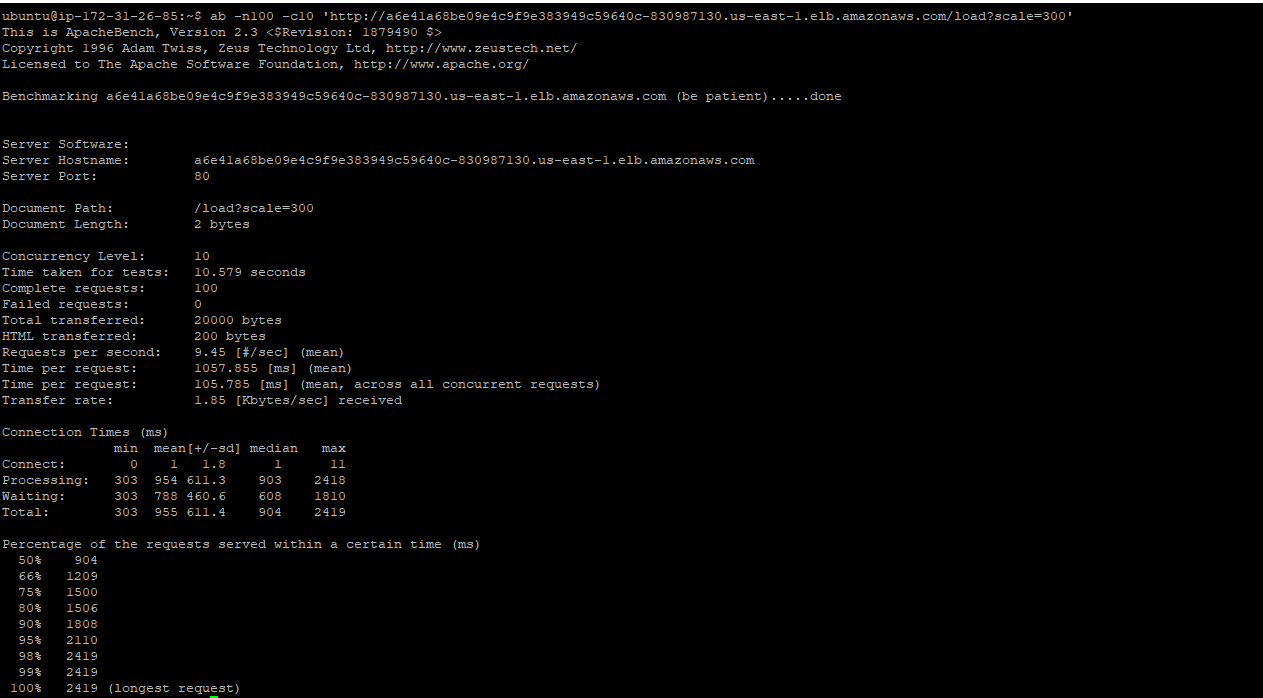
**b. Hit Request:**

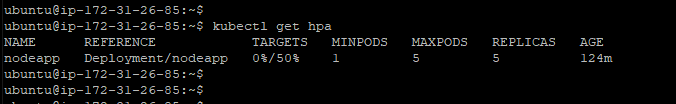
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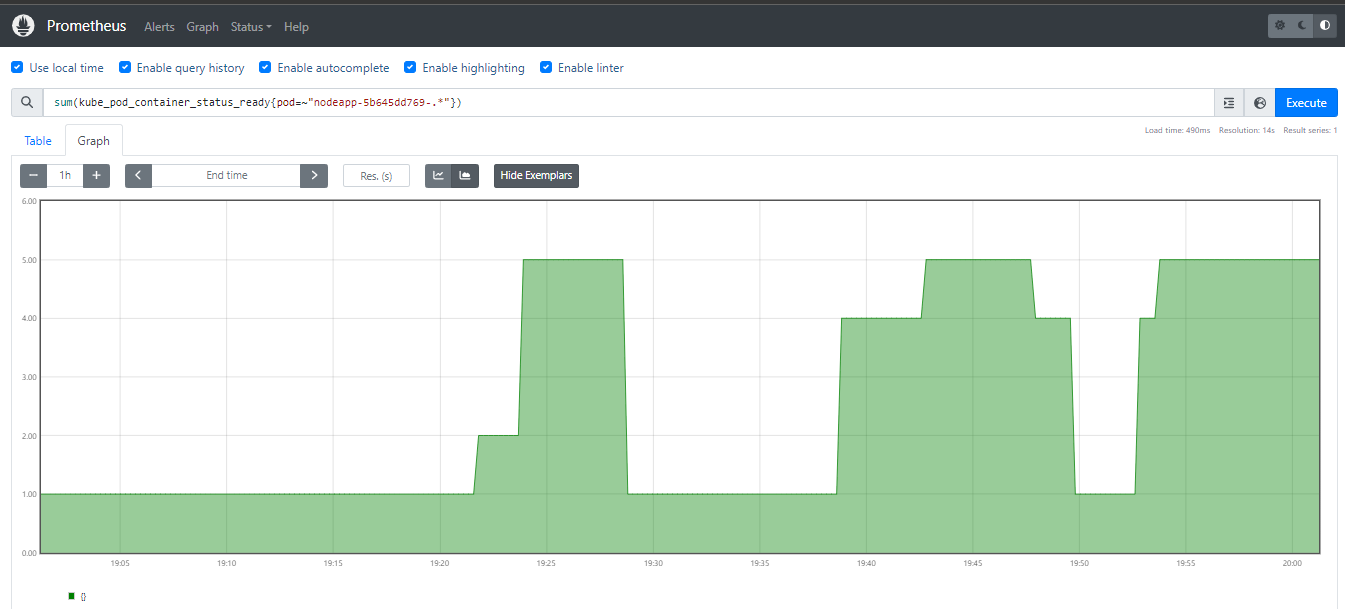
**c. Kubectl Top Pod:**

****

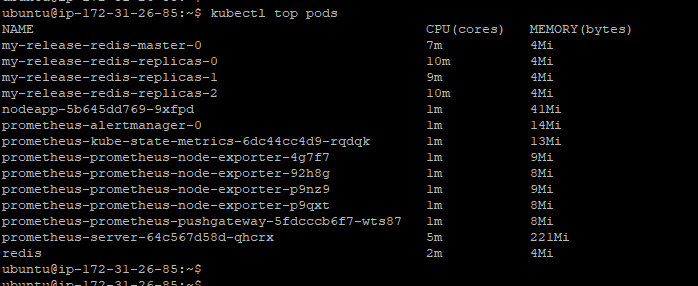
**d. Increase Load:**

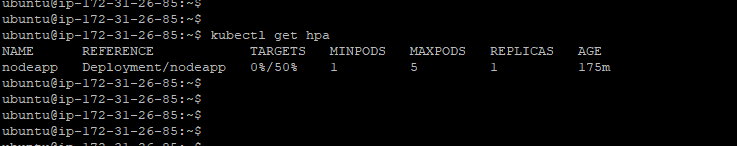
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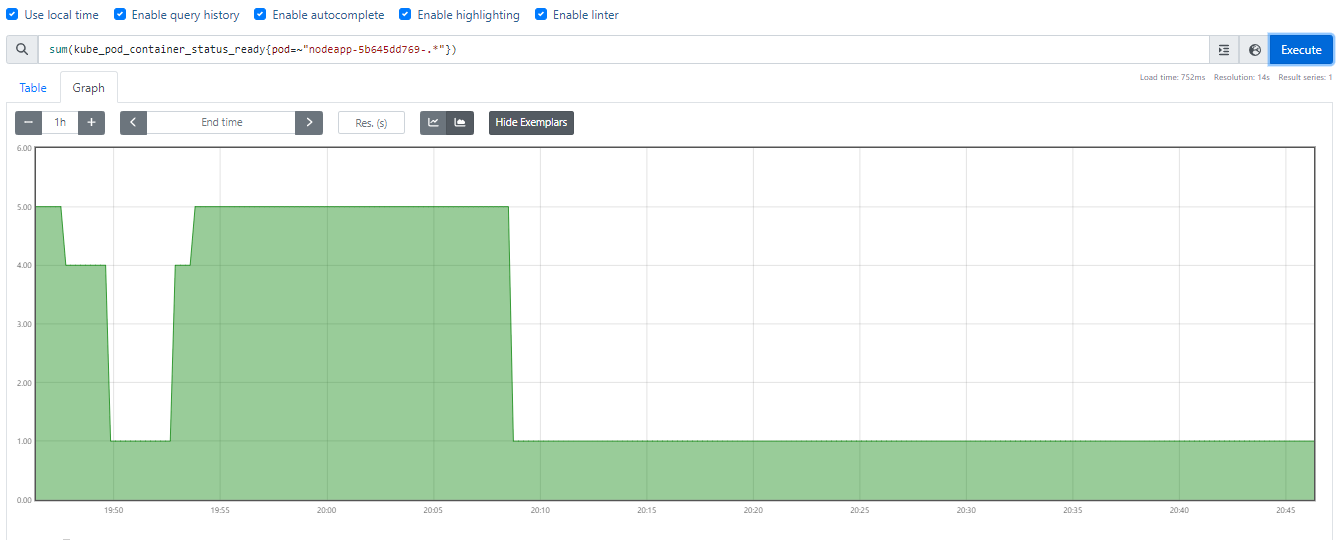
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**e. Stop Load:**

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**================================================================================**

**GIT REPO URL:**

**https://github.com/ankittiwari2503/Capstone-Project.git**