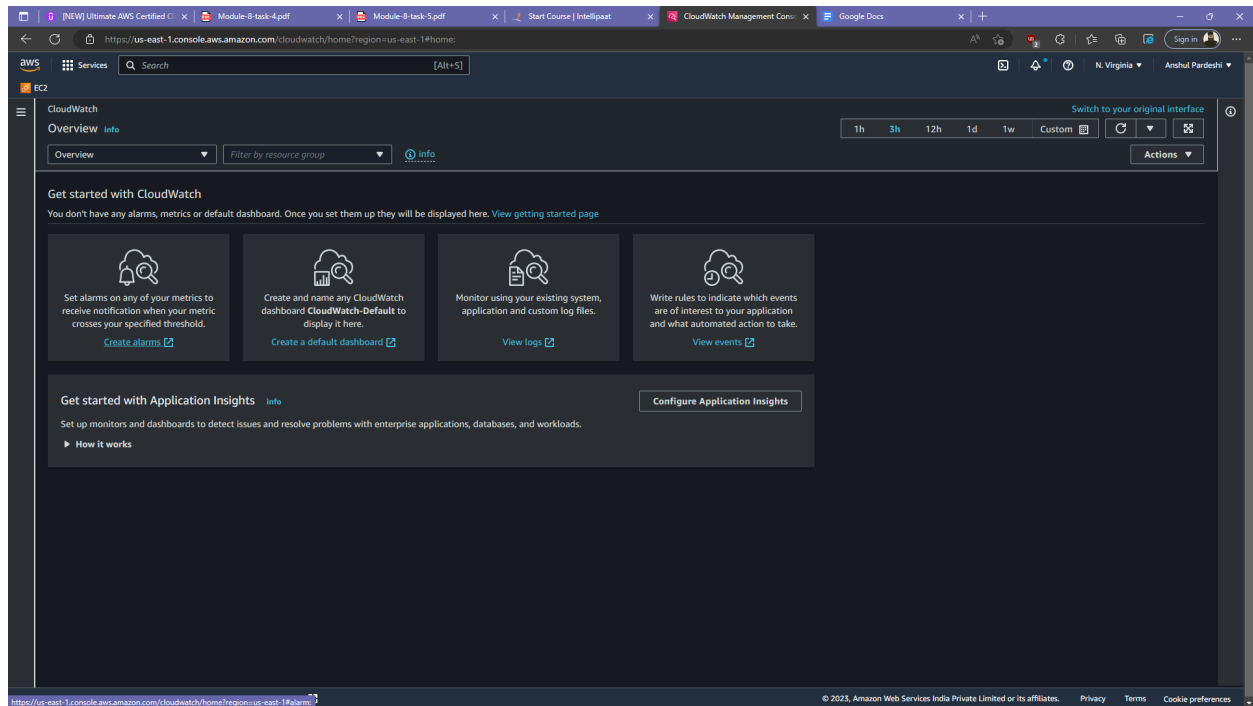


Module-8: CloudWatch Assignment - 5

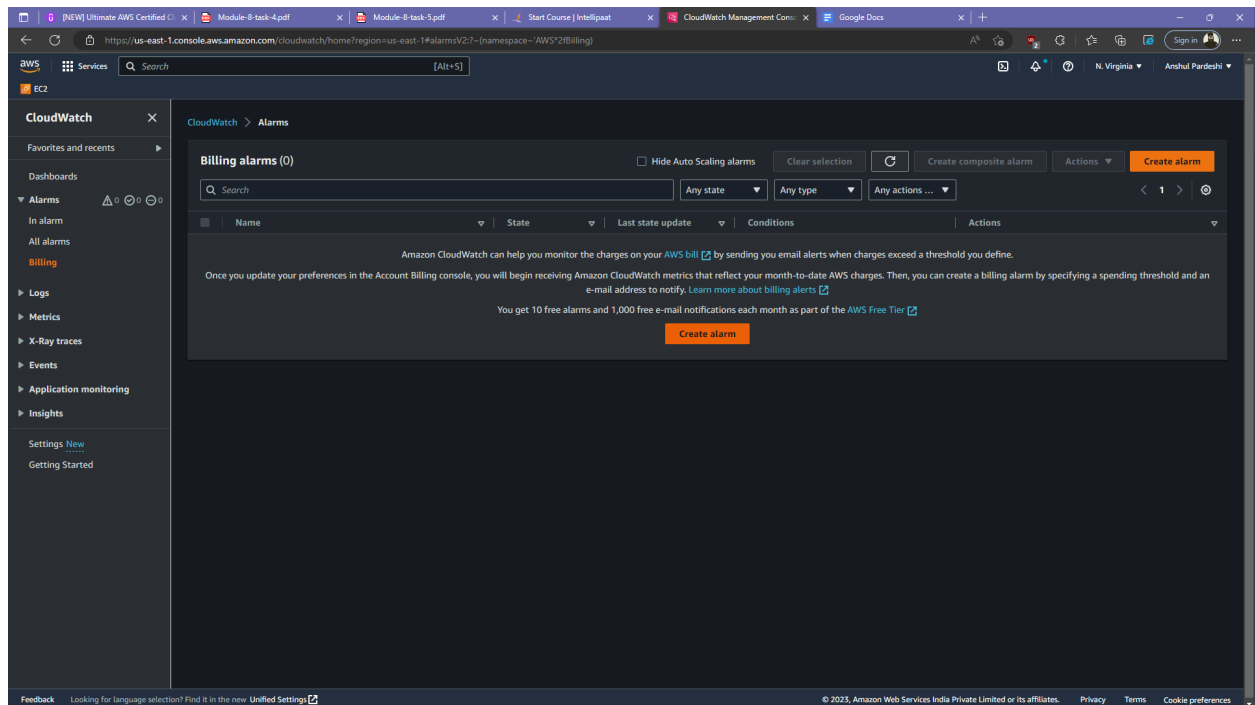
You have been asked to:

1. Create a CloudWatch Billing Alarm which goes off when the Estimated Charges goes above 500\$.
2. Create a CloudWatch Alarm which goes off to an Alarm state when the CPU utilization of an EC2 instance goes above 65%.
 - a. Also add an SNS topic so it notifies the person when the threshold is crossed.

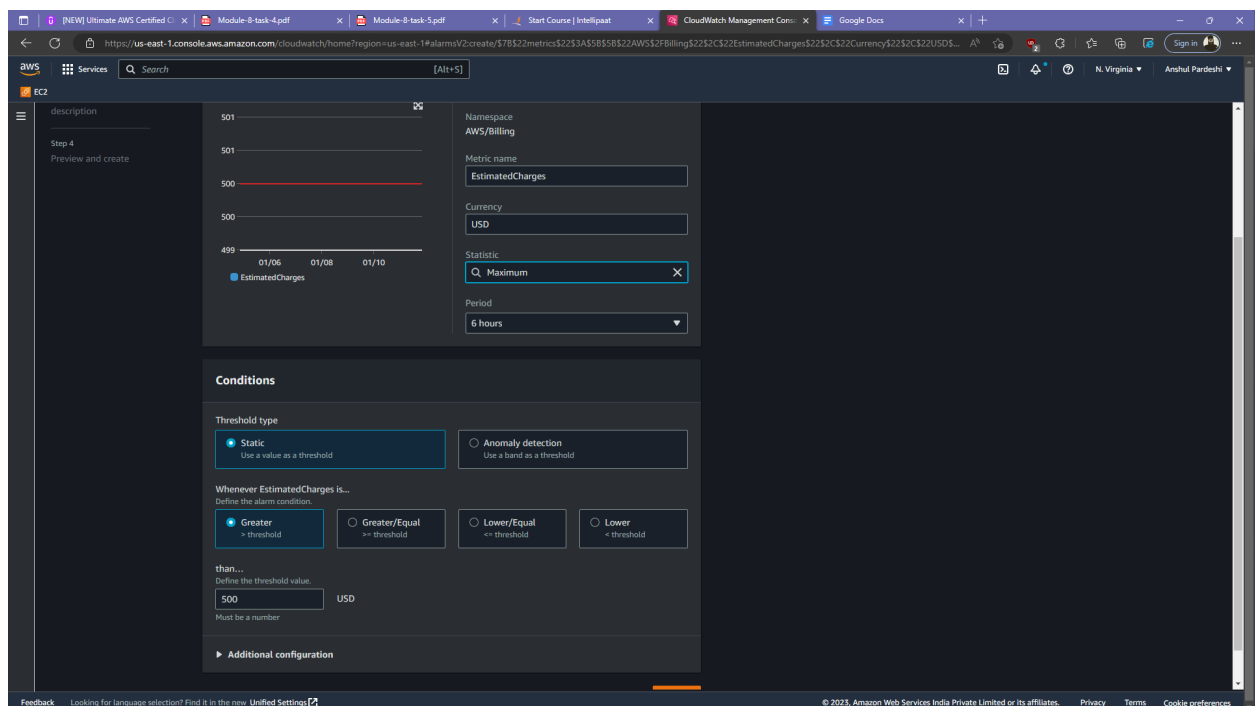
Go to Cloudwatch Dashboard and choose to create an alarm.



To create a billing alarm choose billing from the sidebar then choose create alarm.



Metric should get more than 500 USD to trigger the alarm as specified. So choose greater than and 500 USD in Conditions.



Next

The screenshot shows the 'Configure actions' step in the AWS CloudWatch 'Create alarm' wizard. The left sidebar indicates the current step is 'Step 2: Configure actions'. The main content area has a title 'Configure actions' and a list of action types with 'Add' buttons: 'Notification', 'Auto Scaling action', 'EC2 action', and 'Systems Manager action'. Each action type has a brief description. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons.

CloudWatch > Alarms > Create alarm

Step 1
Specify metric and conditions

Step 2
Configure actions

Step 3
Add name and description

Step 4
Preview and create

Configure actions

Notification

Add notification

Auto Scaling action

Add Auto Scaling action

EC2 action

This action is only available for EC2 Per-Instance Metrics.

Add EC2 action

Systems Manager action [info](#)

This action will create an Incident or Opitem in Systems Manager when the alarm is in **alarm** state.

Add Systems Manager action

Cancel Previous **Next**

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Name it and Next.

The screenshot shows the 'Add name and description' step in the AWS CloudWatch 'Create alarm' wizard. The left sidebar indicates the current step is 'Step 3: Add name and description'. The main content area has a title 'Add name and description' and a form for 'Name and description'. It includes a text input for 'Alarm name' (containing 'for-assignment_1'), a text area for 'Alarm description - optional' (with a 'View formatting guidelines' link), and 'Edit' and 'Preview' buttons. A note at the bottom explains that markdown formatting is only applied when viewing the alarm in the console. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons.

CloudWatch > Alarms > Create alarm

Step 1
Specify metric and conditions

Step 2
Configure actions

Step 3
Add name and description

Step 4
Preview and create

Add name and description

Name and description

Alarm name

for-assignment_1

Alarm description - optional [View formatting guidelines](#)

Edit Preview

This is an H1
double asterisks will produce strong character
This is [an example](https://example.com/) inline link.

Up to 1024 characters (0/1024)

Markdown formatting is only applied when viewing your alarm in the console. The description will remain in plain text in the alarm notifications.

Cancel Previous **Next**

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Create Alarm.

Conditions

Threshold type
Static

Whenever EstimatedCharges is
Greater (>)

than...
500

► Additional configuration

Step 2: Configure actions Edit

Actions

No actions
You don't have any actions for this alarm.

Step 3: Add name and description Edit

Name and description

Name
for-assignment_1

Description
-

Cancel Previous Create alarm

Alarm is created.

CloudWatch ×

Successfully created alarm for-assignment_1. View alarm ×

CloudWatch > Alarms

Billing alarms (1) Hide Auto Scaling alarms Clear selection ↻ Create composite alarm Actions Create alarm

Any state Any type Any actions ... < 1 > ⌂

<input type="checkbox"/>	Name	State	Last state update	Conditions	Actions
<input type="checkbox"/>	for-assignment_1	Insufficient data	2023-01-12 20:40:39	EstimatedCharges > 500 for 1 datapoints within 6 hours	No actions

https://us-east-1.console.aws.amazon.com/cloudwatch/home?region=us-east-1#alarmsV2:create

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Lets create an alarm for CPU utilization. Create Alarm.

The screenshot shows the AWS CloudWatch Alarms console. The page title is 'CloudWatch > Alarms'. There is a search bar and filters for 'Any state', 'Any type', and 'Any actions ...'. A table with columns 'Name', 'State', 'Last state update', 'Conditions', and 'Actions' is shown, but it is empty. A message states 'No alarms' and 'No alarms to display'. A link 'Read more about Alarms' and a 'Create alarm' button are visible. The bottom of the page shows the footer with '© 2023, Amazon Web Services India Private Limited or its affiliates.' and links for 'Privacy', 'Terms', and 'Cookie preferences'.

Choose EC2.

The screenshot shows the 'Select metric' dialog box in the AWS CloudWatch console. The 'Browse' tab is selected, showing a table of metrics. The table has columns for 'Metric', 'Count', 'Resource type', 'Count', 'Resource type', and 'Count'. The metrics listed are Backup, Logs, SES, DynamoDB, RDS, SNS, EBS, Redshift, SQS, EC2, S3, and Usage. The 'EC2' metric is highlighted. The dialog box also includes a search bar, 'Add math', 'Add query', 'Graph with SQL', and 'Graph search' buttons. The bottom of the dialog box has 'Cancel' and 'Select a single metric to continue' buttons. The bottom of the page shows the footer with '© 2023, Amazon Web Services India Private Limited or its affiliates.' and links for 'Privacy', 'Terms', and 'Cookie preferences'.

Metric	Count	Resource type	Count	Resource type	Count
Backup	16	DynamoDB	16	EBS	18
Logs	14	RDS	688	Redshift	71
SES	4	SNS	4	SQS	9
				EC2	18
				S3	2
				Usage	221

Select CPU utilization.

The screenshot shows the AWS CloudWatch 'Select metric' dialog box. The 'Browse' tab is active, displaying a list of metrics for the instance i-0cf414a7faccbce3. The 'CPUUtilization' metric is selected, indicated by a blue checkmark. The 'Add math' and 'Add query' buttons are visible at the top right of the dialog. The 'Select metric' button is at the bottom right.

Selected	No name specified	i-0cf414a7faccbce3	DiskWriteBytes
<input type="checkbox"/>	No name specified	i-0cf414a7faccbce3	DiskReadOps
<input type="checkbox"/>	No name specified	i-0cf414a7faccbce3	DiskWriteOps
<input type="checkbox"/>	No name specified	i-0cf414a7faccbce3	NetworkPacketsIn
<input type="checkbox"/>	No name specified	i-0cf414a7faccbce3	NetworkPacketsOut
<input checked="" type="checkbox"/>	No name specified	i-0cf414a7faccbce3	CPUUtilization
<input type="checkbox"/>	No name specified	i-0cf414a7faccbce3	NetworkIn
<input type="checkbox"/>	No name specified	i-0cf414a7faccbce3	NetworkOut
<input type="checkbox"/>	No name specified	i-0cf414a7faccbce3	DiskReadBytes
<input type="checkbox"/>	No name specified	i-0cf414a7faccbce3	MetadataNoToken
<input type="checkbox"/>	No name specified	i-0cf414a7faccbce3	StatusCheckFailed_System

Enter 65 in conditions.

The screenshot shows the AWS CloudWatch 'Conditions' section. The 'Static' threshold type is selected. The 'Whenever CPUUtilization is...' section shows the 'Greater' condition selected. The 'Define the threshold value' field is set to 65. The 'Period' is set to 5 minutes.

Conditions

Threshold type

☒ Static
Use a value as a threshold

☐ Anomaly detection
Use a band as a threshold

Whenever CPUUtilization is...

Define the alarm condition.

☒ Greater
> threshold

☐ Greater/Equal
>= threshold

☐ Lower/Equal
<= threshold

☐ Lower
< threshold

than...

Define the threshold value.

65

Must be a number

NOW create or Add SNS topic to send Notification to specific person regarding the alarm.

The screenshot shows the 'Configure actions' step in the AWS CloudWatch console. The left sidebar lists four steps: Step 1 (Specify metric and conditions), Step 2 (Configure actions), Step 3 (Add name and description), and Step 4 (Preview and create). The main content area is titled 'Configure actions' and contains a 'Notification' section. Under 'Alarm state trigger', there are three radio button options: 'In alarm' (selected), 'OK', and 'Insufficient data'. Below this, the 'Send a notification to the following SNS topic' section has three radio button options: 'Select an existing SNS topic', 'Create new topic' (selected), and 'Use topic ARN to notify other accounts'. The 'Create a new topic...' section includes a text input field for the topic name, which is 'Default_CloudWatch_Alarms_Topic'. Below this is a text input field for email endpoints, which is 'anshulpardehi1@gmail.com'. At the bottom of the 'Notification' section are two buttons: 'Create topic' and 'Add notification'. Below the 'Notification' section is an 'Auto Scaling action' section.

Give it a name.

The screenshot shows the 'Add name and description' step in the AWS CloudWatch console. The left sidebar lists four steps: Step 1 (Specify metric and conditions), Step 2 (Configure actions), Step 3 (Add name and description), and Step 4 (Preview and create). The main content area is titled 'Add name and description' and contains a 'Name and description' section. Under 'Alarm name', there is a text input field with the value 'for-assignment_2'. Below this is a text area for the 'Alarm description - optional'. The text area contains the following text: '# This is an H1', '**double asterisks will produce strong character**', and 'This is [an example]([https://example.com/]) inline link.'. At the bottom of the text area is a character count: 'Up to 1024 characters (0/1024)'. Below the text area is a button labeled 'Markdown formatting is only applied when viewing your alarm in the console. The description will remain in plain text in the alarm notifications.'. At the bottom of the 'Name and description' section are three buttons: 'Cancel', 'Previous', and 'Next'.

Create alarm

EC2

Services

Search

[Alt+5]

Conditions

Threshold type

Static

Whenever CPUUtilization is Greater (->)

than...

65

Additional configuration

Step 2: Configure actions

Edit

Actions

Notification

When in alarm, send a notification to "Default_CloudWatch_Alarms_Topic"

Step 3: Add name and description

Edit

Name and description

Name

for-assignemnt_2

Description

-

Cancel

Previous

Create alarm

Feedback

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