***Creating a billing alarm to monitor your estimated AWS charges.***

Lab deliveries : Please capture the whole screen, including your account name, in Steps 8,11, and 13, and upload them into eLearning.

This lab works on a Free-Tier account only.

You can monitor your estimated AWS charges by using Amazon CloudWatch. When you enable the monitoring of estimated charges for your AWS account, the estimated charges are calculated and sent several times daily to CloudWatch as metric data.

Billing metric data is stored in the US East (N. Virginia) Region and represents worldwide charges. This data includes the estimated charges for every service in AWS that you use, in addition to the estimated overall total of your AWS charges.

The alarm triggers when your account billing exceeds the threshold you specify. It triggers only when actual billing exceeds the threshold. It doesn't use projections based on your usage so far in the month.

If you create a billing alarm at a time when your charges have already exceeded the threshold, the alarm goes to the ALARM state immediately.

**Tasks**

* [Enabling billing alerts](https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html#turning_on_billing_metrics)
* [Creating a billing alarm](https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html#creating_billing_alarm_with_wizard)
* [Deleting a billing alarm](https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html#deleting_billing_alarm)

Enabling billing alerts

Before you can create an alarm for your estimated charges, you must enable billing alerts, so that you can monitor your estimated AWS charges and create an alarm using billing metric data. After you enable billing alerts, you can't disable data collection, but you can delete any billing alarms that you created.

After you enable billing alerts for the first time, it takes about 15 minutes before you can view billing data and set billing alarms.

**Requirements**

* You must be signed in using account root user credentials or as an IAM user that has been given permission to view billing information.
* For consolidated billing accounts, billing data for each linked account can be found by logging in as the paying account. You can view billing data for total estimated charges and estimated charges by service for each linked account, in addition to the consolidated account.
* In a consolidated billing account, member linked account metrics are captured only if the payer account enables the **Receive Billing Alerts** preference. If you change which account is your master/payer account, you must enable the billing alerts in the new master/payer account.
* The account must not be part of the Amazon Partner Network (APN) because billing metrics are not published to CloudWatch for APN accounts. For more information, see [AWS Partner Network](https://aws.amazon.com/partners/).

**To enable the monitoring of estimated charges**

1. Open the Billing and Cost Management console at [https://console.aws.amazon.com/billing/](https://console.aws.amazon.com/billing/home?#/).
2. In the navigation pane, choose **Billing Preferences**.
3. Choose **Alert preferences** and fill in the required info
4. Choose **Save or Update preferences**.

Creating a billing alarm

**Important**

***Before you can create a billing alarm,you must enable billing alerts in your account, or in the master/payer account if you are using consolidated billing. For more information, see***[***Enabling billing alerts***](https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html#turning_on_billing_metrics)***.***

In this procedure, you create an alarm that sends a notification when your estimated charges for AWS exceed a specified threshold. This procedure uses the advanced options. For more information about using the simple options, see [Create a Billing Alarm](https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/gs_monitor_estimated_charges_with_cloudwatch.html#gs_creating_billing_alarm) in *Monitor Your Estimated Charges Using CloudWatch*.

**To create a billing alarm using the CloudWatch console**

1. Open the CloudWatch console at <https://console.aws.amazon.com/cloudwatch/>.
2. If necessary, change the Region to US East (N. Virginia). Billing metric data is stored in this Region and represents worldwide charges.
3. In the navigation pane, choose **Alarms->Billing**  **Create Alarm**.
4. Choose **Select metric**. In the **All metrics** tab, choose **Billing**, **Total Estimated Charge**.

If you don't see **Billing** or the **Total Estimated Charge** metric, you may need to enable billing alerts. For more information, see [Enabling billing alerts](https://docs.aws.amazon.com/AmazonCloudWatch/latest/monitoring/monitor_estimated_charges_with_cloudwatch.html#turning_on_billing_metrics).

1. Select the check box next to **EstimatedCharges**, and choose **Select metric**.
2. Under **Conditions**, choose **Static**.
3. For **Whenever EstimatedCharges is**, choose **Greater**.
4. For **than**, enter the monthly amount (for example, 99.01) that must be exceeded to trigger the alarm.

**Note**

The preview graph displays your current charges for the month.

1. Choose **Next**.
2. For **Select an SNS topic**, select an SNS topic to notify when the alarm is in ALARM state, or create a new topic to be notified.: if it is first time and you don’t have SNS then select Create new topic and name it and let the system know your email for communication ones you done
   1. Select Create topic
   2. Add notification -insert your email one more time here for alarm trigger

To have the alarm send multiple notifications for the same alarm state or for different alarm states, choose **Add notification** ( optinonal)

1. When finished, choose **Next**.
2. Enter a name and description for the alarm. The name must contain only ASCII characters. Then choose **Next**.
3. Under **Preview and create**, confirm that the information and conditions are what you want, then choose **Create alarm**.

Deleting a billing alarm

You can delete your billing alarm when you no longer need it.

**To delete a billing alarm**

1. Open the CloudWatch console at <https://console.aws.amazon.com/cloudwatch/>.
2. If necessary, change the Region to US East (N. Virginia). Billing metric data is stored in this Region and reflects worldwide charges.
3. In the navigation pane, choose **Alarms**.
4. Select the check box next to the alarm and choose **Actions**, **Delete**.
5. When prompted for confirmation, choose **Yes, Delete**.