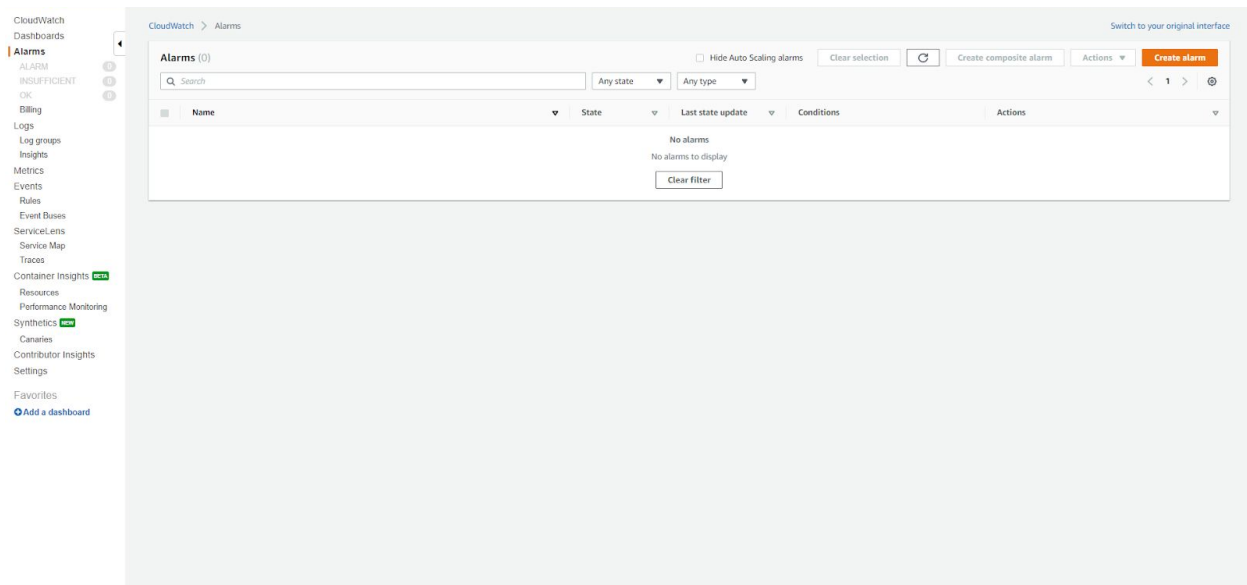


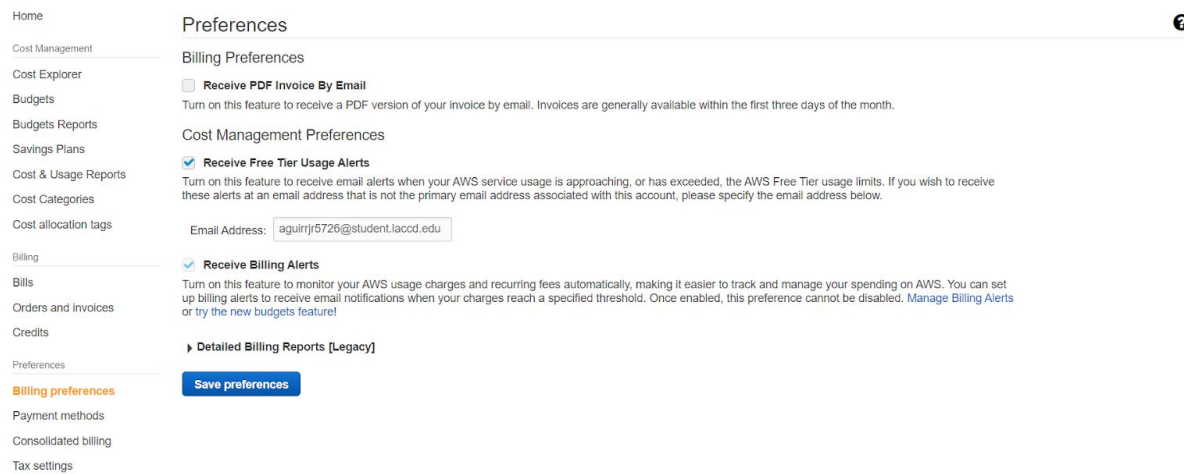
Module 4 Lab 2: CloudWatch Billing Alarm

CloudWatch - Alarms



With no active alarms present, there are no graphs to display.

AWS - Preferences



Receive Billing Alerts must be checked in Billing preferences.

CloudWatch - Alarms

The screenshot shows the AWS CloudWatch Alarms console. At the top, there's a breadcrumb trail: CloudWatch > Alarms. A link "Switch to your original interface" is in the top right. Below the breadcrumb, there's a section for "Billing alarms (1)". It includes a checkbox for "Hide Auto Scaling alarms", a "Clear selection" button, a refresh icon, a "Create composite alarm" button, an "Actions" dropdown, and a prominent orange "Create alarm" button. A search bar with the placeholder "Search" is present. Below the search bar, there are filters for "Any state" and "Any type". A table lists the alarms:

<input type="checkbox"/>	Name	State	Last state update	Conditions	Actions
<input type="checkbox"/>	Sample Billing Alarm	OK	2019-12-31 21:11:37	EstimatedCharges >= 0.01 for 1 datapoints within 6 hours	⋮

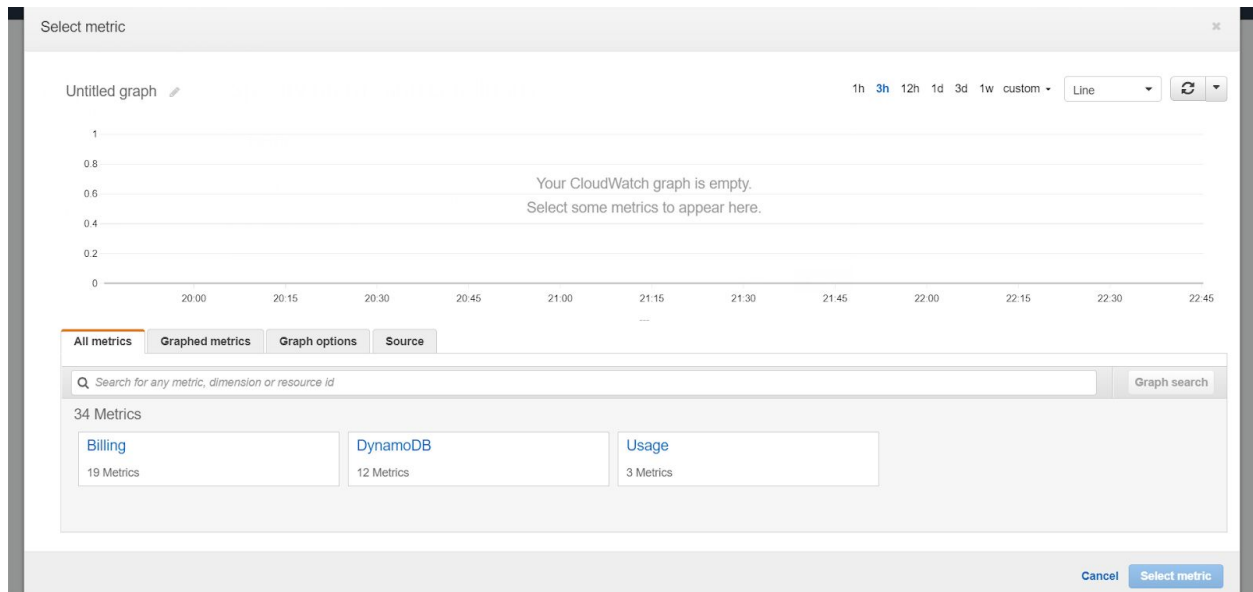
There's one Sample Billing Alarm created in a previous class.

CloudWatch - Create alarm

The screenshot shows the "Create alarm" wizard in the AWS CloudWatch console. The breadcrumb trail is CloudWatch > Alarms > Create alarm. On the left, there's a sidebar with 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 area is titled "Specify metric and conditions". It contains a "Metric" section with a "Graph" preview area. Below the graph, there's a "Select metric" button. At the bottom right, there are "Cancel" and "Next" buttons.

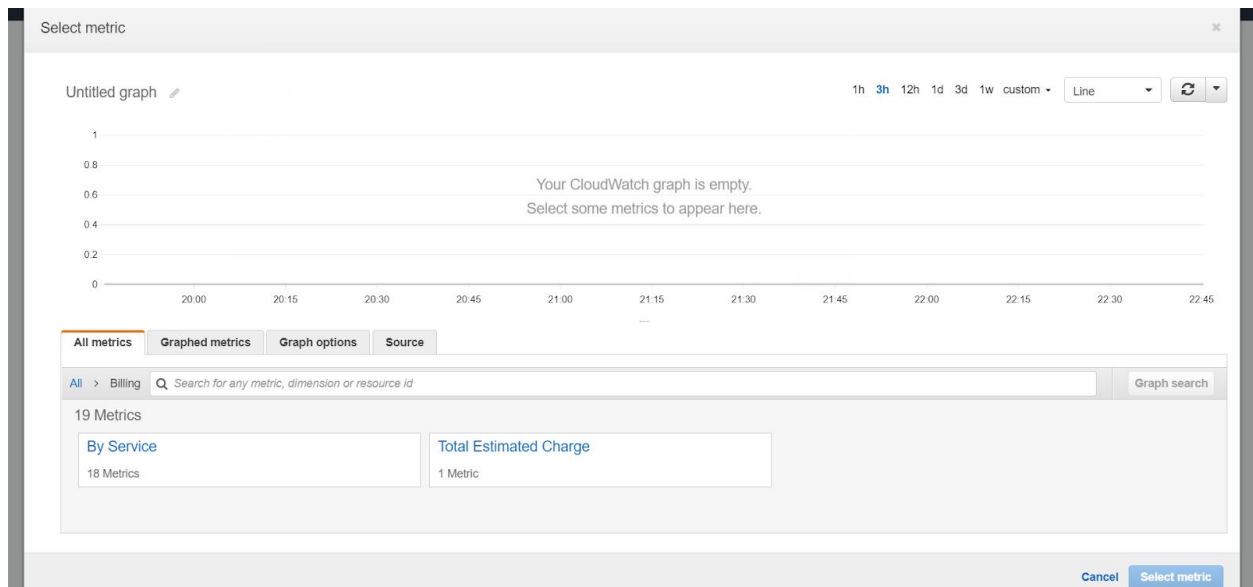
Setting the metric that will be monitored.

CloudWatch - Select metric



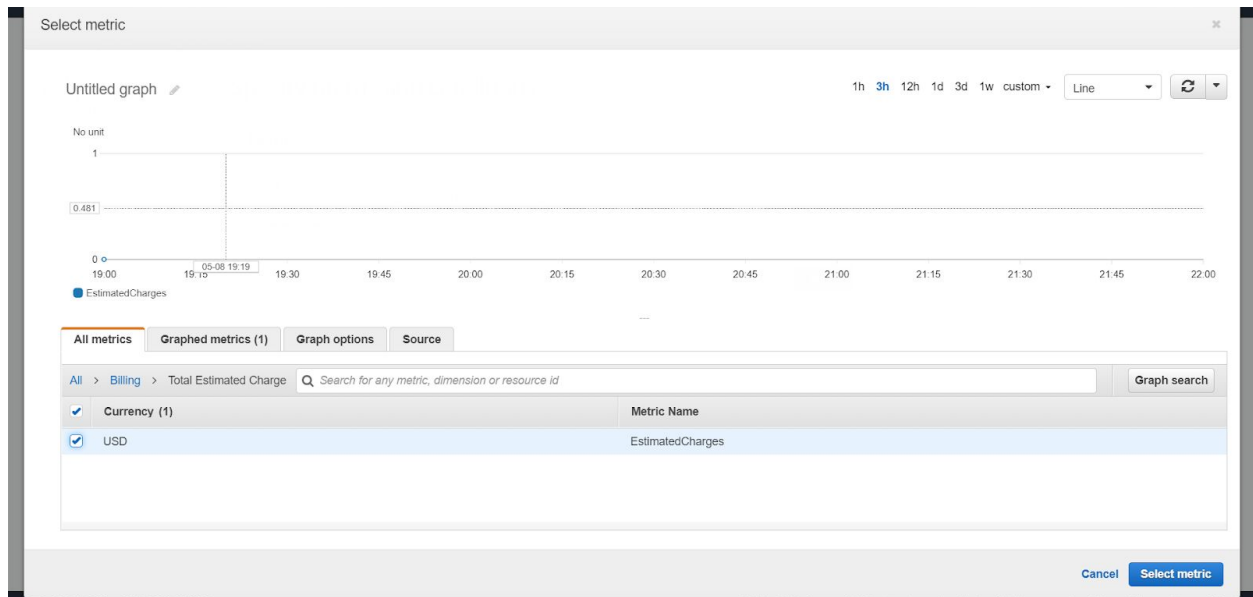
Because this is a Billing Alarm, the Billing metric will be selected

CloudWatch - Select metric



The alarm needs to span entire AWS services, thus Total Estimated charge is selected.

CloudWatch - Select metric



Currency is set as USD.

CloudWatch - Billing alarm

The screenshot shows the 'Billing alarm' configuration page. The 'Conditions' section is expanded, showing the following configuration:

- Threshold type:** Static (Use a value as a threshold)
- Whenever EstimatedCharges is...** Define the alarm condition.
 - ☒ Greater > threshold
 - ☐ Greater/Equal >= threshold
 - ☐ Lower/Equal <= threshold
 - ☐ Lower < threshold
- than...** Define the threshold value.
 - 100.00
 - USD

At the bottom right, there are 'Cancel' and 'Next' buttons.

The condition is set to Great/Equal to \$100.00 USD.

CloudWatch - Create alarm

The screenshot shows the 'Configure actions' step of the CloudWatch 'Create alarm' wizard. On the left, a sidebar lists four steps: Step 1 'Specify metric and conditions', Step 2 'Configure actions' (which is the current step), 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 'Select an SNS topic' section has three radio button options: 'Select an existing SNS topic' (selected), 'Create new topic', and 'Use topic ARN'. A search box labeled 'Send a notification to...' contains the text 'aws_charge_100USD'. Below the search box, it says 'Only email lists for this account are available.' and shows an email address 'aguirirj5726@student.laccd.edu' with a link to 'View in SNS Console'. At the bottom of the notification section is an 'Add notification' button. A 'Remove' button is located at the top right of the notification section.

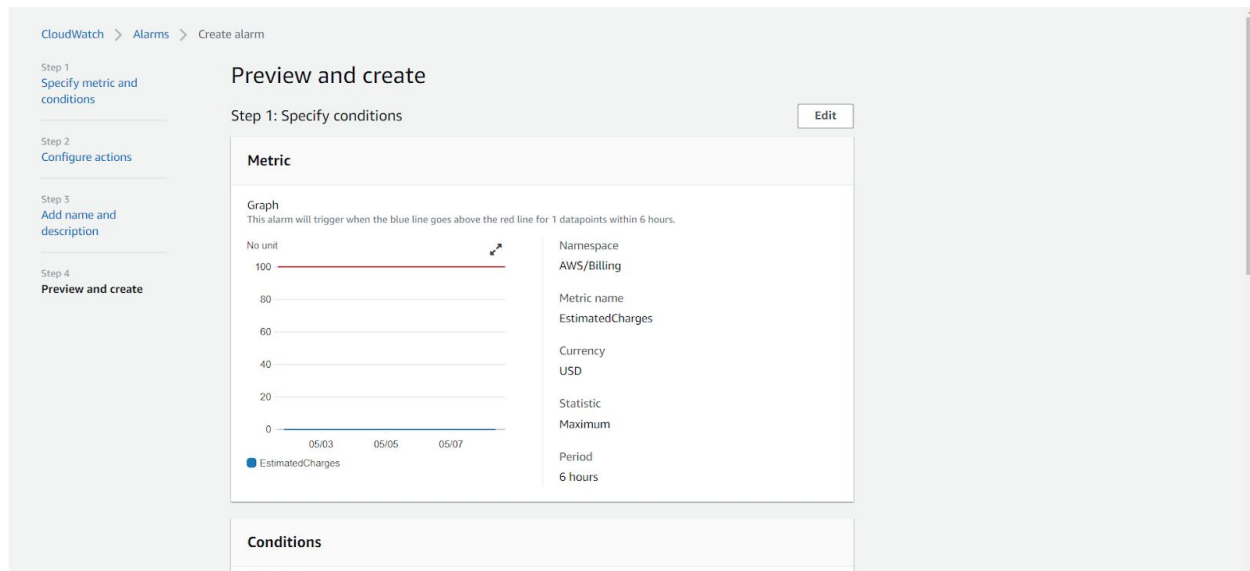
The email has received SNS subscription confirmation.

CloudWatch - Create alarm

The screenshot shows the 'Add name and description' step of the CloudWatch 'Create alarm' wizard. The sidebar on the left is the same as in the previous screenshot, with Step 3 'Add name and description' now highlighted. 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 containing 'Usage over 100 USD'. Under 'Alarm description - optional', there is a larger text input field containing 'Alarm description'. At the bottom of the description field, it says 'Up to 1024 characters (0/1024)'. At the bottom of the section are three buttons: 'Cancel', 'Previous', and 'Next'.

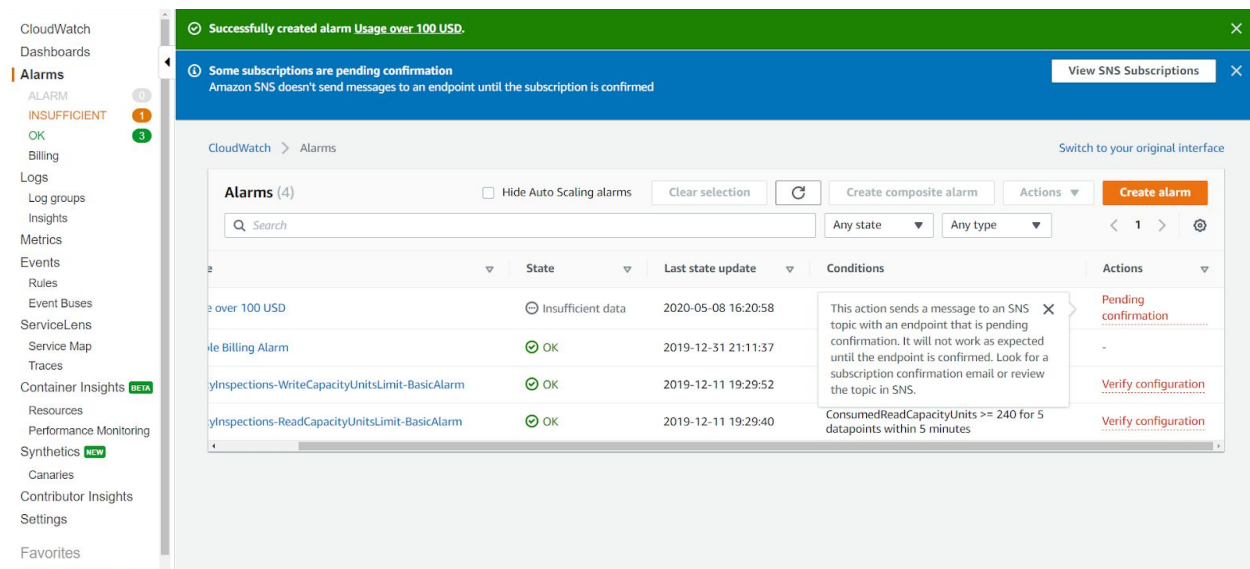
The name of the Alarm is set.

CloudWatch - Create alarm



Preview of the alarm before it's creation.

CloudWatch - Create alarm



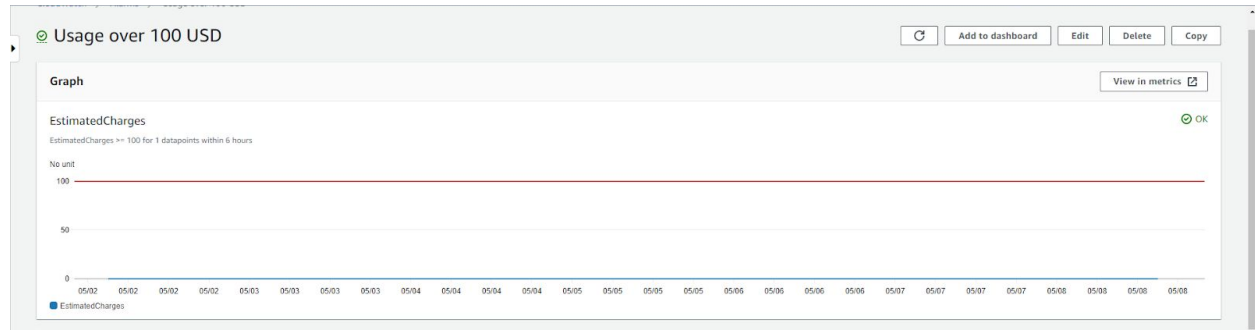
Because the email hasn't been confirmed yet, the billing alarm hasn't started yet.

Confirmation of SNS subscription

```
aws_charge_100USD.  
Your subscription's id is:
```

Confirmation of the subscription.

CloudWatch - Billing alarms



Billing alarm active.