

Amazon Web Services Billing and Cleanup

Overview

As you progress through the semester, you will be utilizing several services through AWS. The costs associated with these services should remain minimal; however, if you experience higher charges, please do not hesitate to reach out to the instructor.

The services you will be using are billed based on usage or the number of API calls. For example, in the course project, your website will make use of the following services:

- API Gateway:
- Amplify
- Cognito
- Lambda
- DynamoDB
- IAM
- S3
- CloudFront
- CloudWatch
- WAF
- Key Management

To help you better understand the cost structure, you can use the AWS Pricing Calculator at the following link: [AWS Calculator](#). Feel free to explore it to estimate the costs of different services.

For these projects, you will be charged for the number of people who interact with your website: Logging in, navigating, etc. Unless this number crosses into the millions, you will have nothing to worry about.

Reviewing Your Usage

Throughout the course, it is important to monitor your spending. To do so, navigate to the AWS Dashboard, click on the account dropdown, and select **Billing and Cost management**

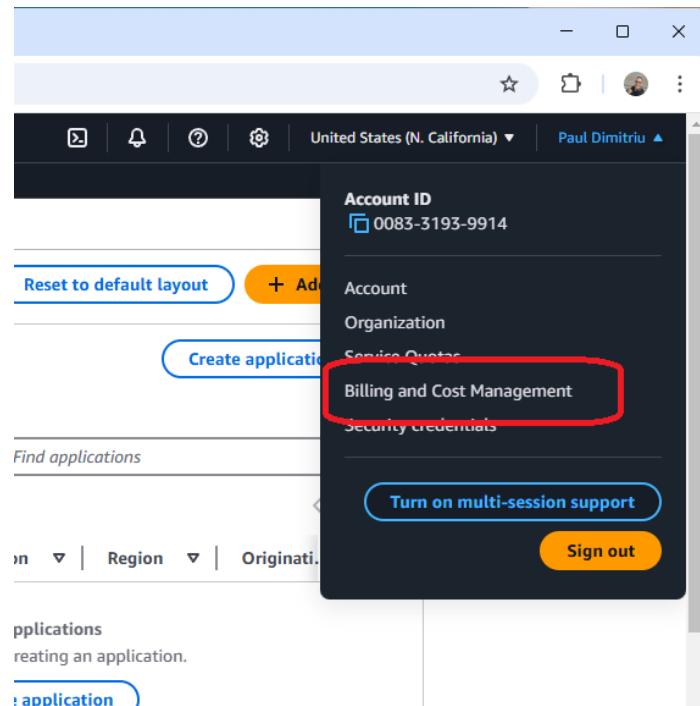


Figure 1 Select "Billing and Cost Management"

Billing and Cost Management Home Screen

On the **Billing and Cost Management** home screen, you will find details about your current usage, spending, and service-specific graphs. Please note that the "green" section represents my account, and you can disregard my usage data. 😊

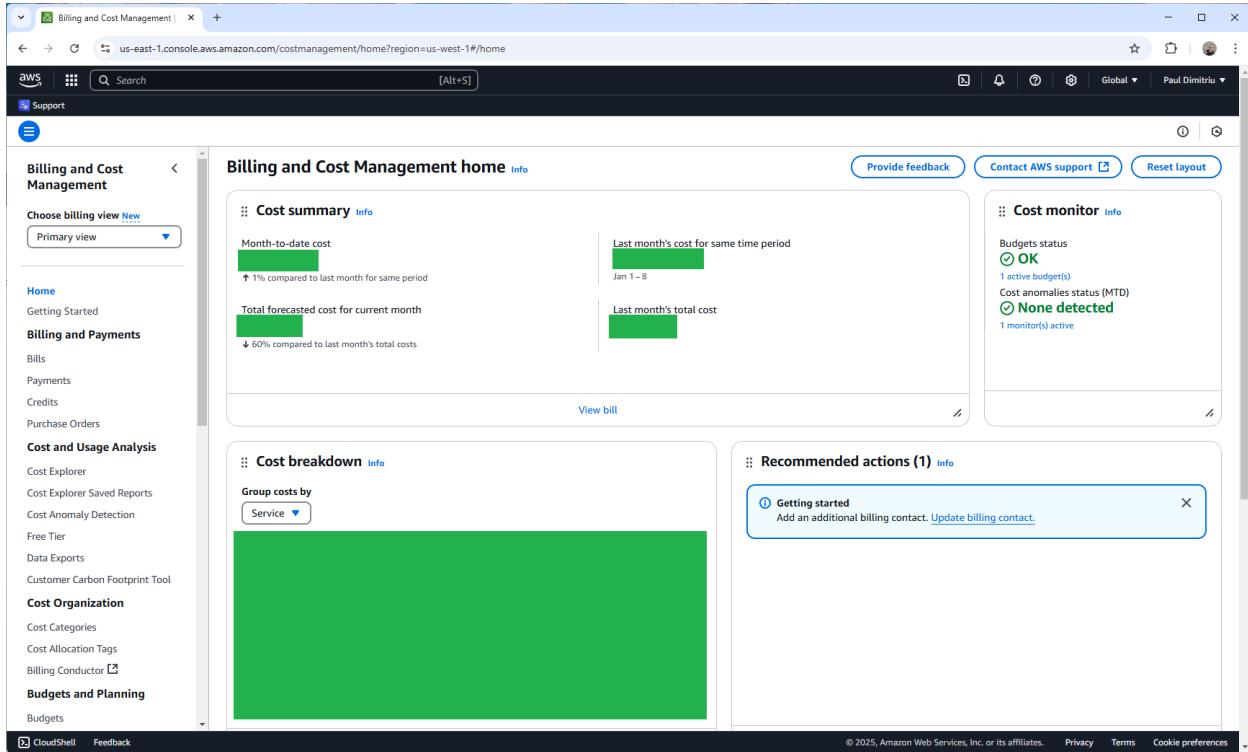


Figure 2 Billing and Cost Management Home

Bills

On the left menu, click on Bills. Scroll down. You will see how much, per service you are spending.

The screenshot shows the AWS Billing and Cost Management interface. The left sidebar is titled 'Billing and Cost Management' and includes sections for Home, Getting Started, Billing and Payments, Cost and Usage Analysis, Cost Organization, Budgets and Planning, and Savings and Commitments. The 'Bills' section is currently selected. The main content area is titled 'Amazon Web Services, Inc. charges by service' and displays a table of services and their charges. The table has columns for Description, Usage Quantity, and Amount in USD. The 'Amount in USD' column for all services is completely redacted with a large green rectangle. A note at the bottom states: 'Usage and recurring charges for this statement period will be charged on your next billing date. Estimated charges shown on this page, or shown on any notifications that we send to you, may differ from your actual charges for this statement period. This is because estimated charges presented on this page do not include usage charges accrued during this statement period after the date you view this page. Similarly, information about estimated charges sent to you in a notification do not include usage charges accrued during this statement period after the date we send you the notification. One-time fees and subscription charges are assessed separately from usage and recurring charges, on the date that they occur. The charge on this page includes taxes unless it is listed as a separate line item. To review your tax information, contact your AWS Organization's financial management owner.'

Figure 3 Bills Screen

Budget

In the left-hand menu, click on **Budgets**. Here, you can set a spending limit for your AWS usage. This will trigger an alert if you are approaching or exceeding your budget. As shown in Figure 4, I have set a monthly budget of \$100.

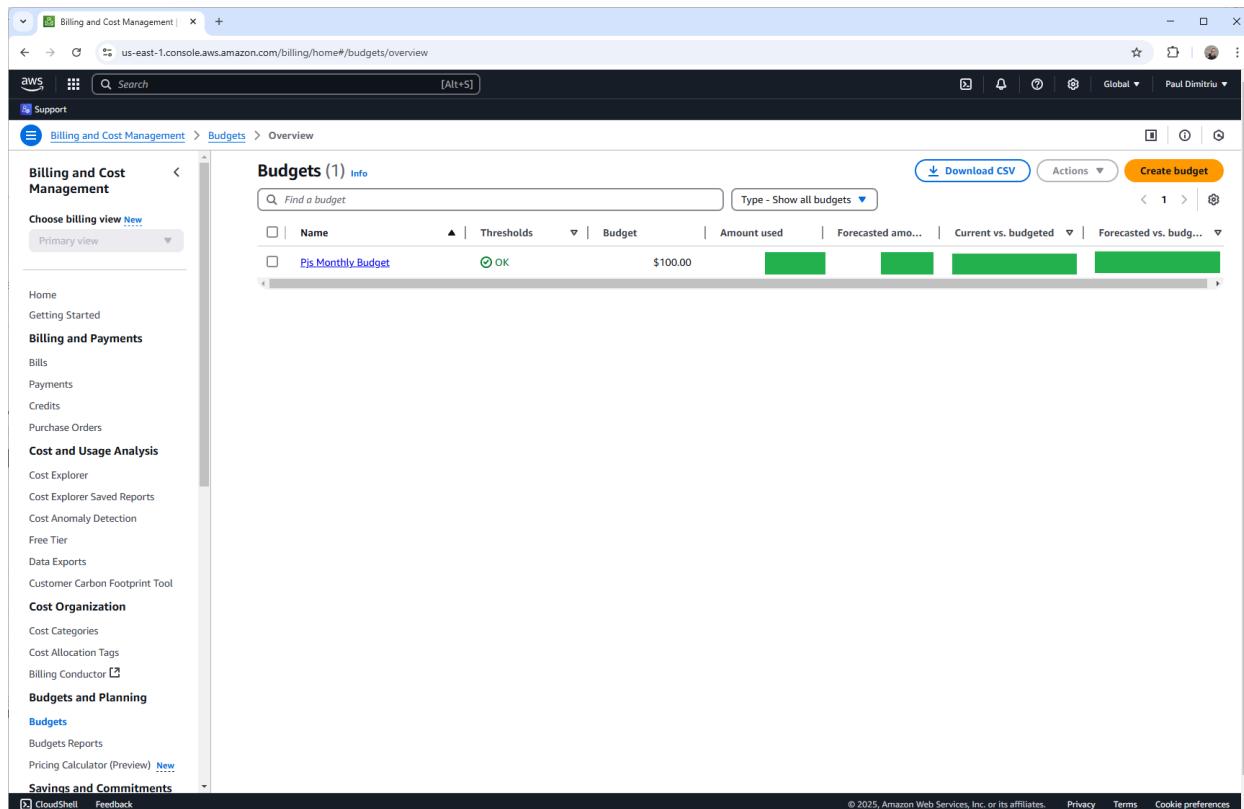


Figure 4 Budget Screen

Create a Budget

To create a monthly budget:

- Click on **Create budget**
- In the Choose budget type screen:
 - Under **Templates**, click on **Monthly cost budget**
 - Under **Budget name**, you can name this (optional)
 - Under **Email recipients**, give an email address of who will get this alert
 - In **Enter your budgeted amount (\$)**, enter an amount.
 - Click on **Create budget**

Deactivating Services Used in Class

Overview

As you have progressed through this class, you have used several Amazon services for different modules. While you have dabbled with fun and interesting AWS services, we want to make sure you are no longer being billed after the module, and the class are over.

Course Project

In this project, you used the following services:

- Amplify
- Lambda
- API Gateway
- Cognito
- DynamoDB
- CloudWatch

Except for DynamoDB, these services incur costs based on usage.

Delete your Amplify App

1. Open the [AWS Amplify](#) Console.
2. Select the app you created in Manage Users.
3. On the app landing page, choose **App settings > General settings**.
4. Click on **Delete app**.
5. Enter *delete* when prompted to confirm.

Delete your Amazon Cognito user pool

1. In the [Amazon Cognito](#) console, select an unused user pool.
2. Click **Delete**.
3. Check **Deactivate deletion protection**.
4. Enter the name of the user pool when prompted to confirm.

Lambda Function

1. Open the [AWS Lambda](#) Console.
2. Select your unused Lambda function.
3. From the **Actions** dropdown, click on **Delete**.
4. Enter *delete* when prompted to confirm.

IAM Role

1. Open the [AWS IAM](#) Console.
2. Select Roles from the left navigation pane.
3. Enter an unused IAM role into the filter box. Select the role when it comes up.
4. Choose Delete.
5. Enter the name of the role when prompted to confirm.

DynamoDB Table

1. Open the [AWS DynamoDB](#) Console.
2. Choose **Tables** in the navigation menu.
3. Choose the unused table you wish to delete.
4. Choose **Delete**.
5. Enter *confirm* when prompted to confirm.

Delete your REST API

1. Open the [AWS API Gateway](#) Console.
2. Choose the unused API.
3. Choose **Delete**.
4. Enter *confirm* when prompted to confirm.

Delete your CloudWatch Log

1. Open the [AWS Cloudwatch](#) Console.
2. Select Logs from the left navigation pane.
3. Select an unused log group.
4. Choose **Delete log group** from the **Actions** drop-down.
5. Choose **Delete** when prompted to confirm.

Module 7

Overview

In this module, you used AWS to host a static website. You utilized the following services:

- S3
- CloudFront
- CloudWatch
- Key Management

You also possibly utilized Web Application Framework (WAF)

Delete your S3 Bucket

Empty the bucket

Before you can delete the bucket, verify the bucket is empty.

1. Open the [AWS S3](#) Console. Make sure you select the correct region.
2. Choose the bucket you wish to delete.
3. Click **Empty**
4. Confirm deletion. Enter **permanently delete**. Click **Empty**

Delete the bucket

1. Choose the bucket you wish to delete.
2. Click **Delete**.
3. Confirm deletion. Enter the name of the bucket. Click **Delete bucket**.

Delete your CloudFront Distribution

Disable the distribution

Before the distribution can be deleted, it has to be disabled

1. Open the [AWS CloudFront](#) Console.
2. Choose the distribution you wish to disable.
3. Click **Disable**.
4. Wait until the status changes to “Disabled” This takes a few minutes.

Delete the distribution

1. Choose the distribution you wish do delete.
2. Click **Delete**.
3. Confirm you wish to delete by clicking **Delete**.

Delete any WAF

1. Open the [AWS WAF](#) Console.
2. Click **Web ACLs**.
3. Verify your region is set to **Global**.
4. Choose the WAF you wish to delete.
5. Click **Delete**.
6. Confirm deletion. Type **delete** and click **Delete**.

Delete any Amazon Keys

1. Open the [AWS Managed Keys Service](#) console.
2. Click on **Customer managed keys**.
3. Choose the key you wish to delete.
4. From the Key Actions dropdown, click **Schedule key deletion**.
5. Change waiting period to 7 days. This is the minimum you can enter. Confirm you wish to delete the key by selecting the Confirm checkbox. Click **Schedule deletion**.