

How to get started on Amazon EC2

Average time for assignment completion: 5-10 minutes

In past semesters, we used an Amazon EC2 instance in CS 1337 for Labs 1-4 in order to ensure that all students were using the same x86_64 architecture that we are learning about in class. This had the benefit of teaching students how to set up their own server, but came with administrative overhead of system administration that, while potentially educational and valuable to some, did not directly contribute to the aims of the course. As such, we have pivoted to using an existing server local to ISU campus on which students will be given accounts to complete assignments.

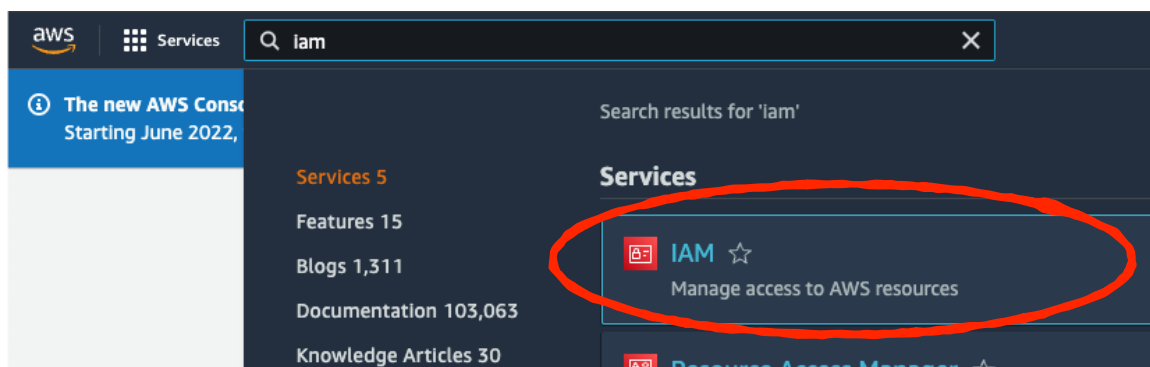
The purpose of this document is to provide instructions on how to terminate existing Amazon EC2 instances to avoid incurring billing charges to your account.

Note: If you set up an EC2 instance, you were required to set up billing information in case usage exceeded the limits of the free tier resources. There would have been an authorization charge of \$1 sent to verify that your card is valid, but AWS should not proceed with the charge, and **the charge should disappear within three to five business days**.

Removing a user in the AWS Management Console

We had previously guided you to create an account granting access to the instructor and TAs to your AWS management console to be able to help students resolve issues with server management. It has been raised as a concern that since students provided billing information during account setup that this could have given the instructor or TAs access to students' financial information. Based on my research, creating an IAM account does not give access to financial or billing information, but it is possible that IAM users could spin up resources that could potentially trigger charges on the students' account. Just to be safe, and to ensure that your account stays secure going forward, you should remove the account you created for the instructor and TAs.

1. Log in as root use on the AWS Management Console (<https://console.aws.amazon.com/console/home>)
2. In the search box, type "IAM" and select the "IAM" service



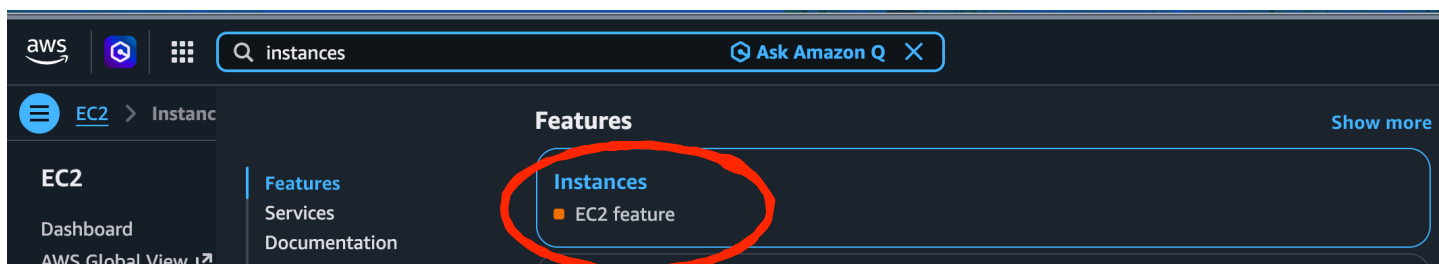
3. In the lefthand menu, select "IAM users".

- Click the checkbox next to the user to be deleted, and select "Delete user". Before it deletes the user, it will display all recent activity by that user (there shouldn't be any recent activity). Confirm the deletion.

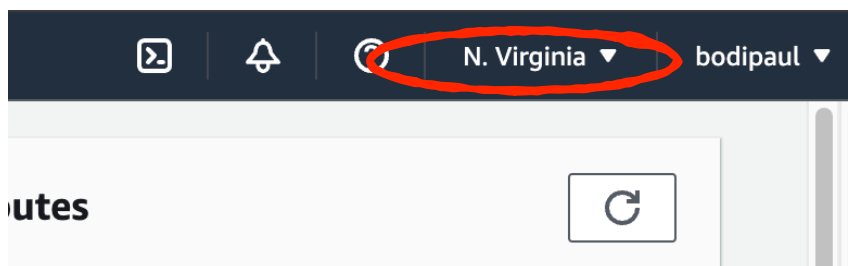
Terminating a server instance

Amazon calls its web servers *instances*, because you can have many of them running in parallel. For now, you should only have (at most) one instance running. Here are instructions on how to terminate your server instance.

- Log in as root use on the AWS Management Console (<https://console.aws.amazon.com/console/home>)
- From the search box, type "instances" and select the "Instances" service (EC2 feature).



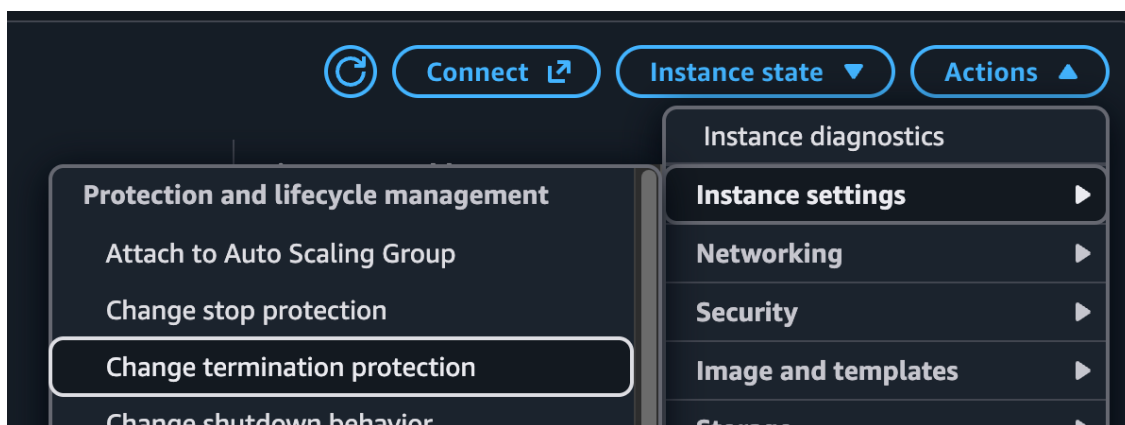
- Ensure you have selected the region in which you initially launched your instance. The region



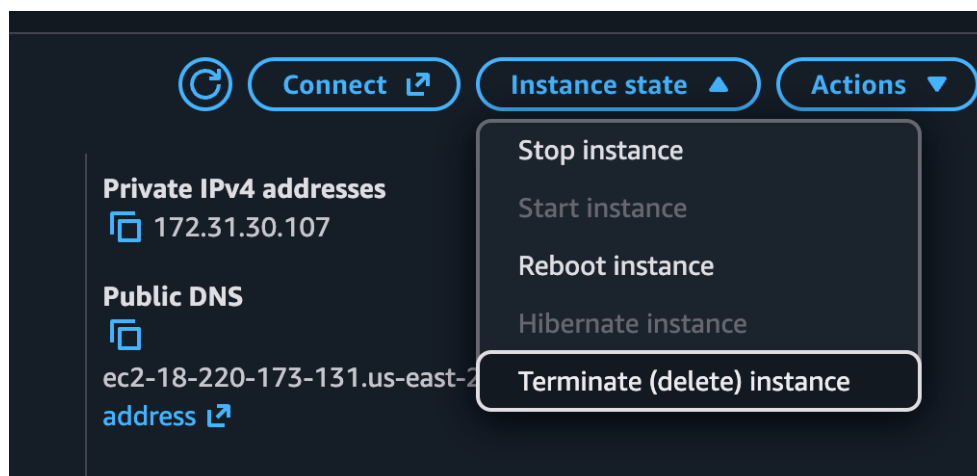
is indicated in the top right of the page next to your username:

Noting the region in which you launch your server instance is important because by default the EC2 Management Console view is region-specific. That means if you launched your instance in "N. Virginia", but the region you are currently looking at in the Console is "Ohio", you will not see the N. Virginia instance listed. This can inadvertently lead some users to erroneously assume they have no instances running when in fact they do. Failing to terminate all instances will eventually result in you exceeding the limits of the free-tier and being charged for the extra usage. Be sure the first thing you do each time you log in is to verify the region which you are viewing. To see all instances across all regions, go to <https://us-east-1.console.aws.amazon.com/awsglobalview/home#GlobalSearch>.

8. Click on the instance ID to view the Instance summary information.
9. In the top right, click "Actions" > "Instance Settings" > "Change termination protection". Ensure that "Termination protection" is **not** enabled. Save.



10. Next, in the top right, click "Instance state" > "Terminate (delete) instance". Click "Terminate (delete)".



Checking server usage

You should still be well within the limits for the free tiered resources, so you should not have incurred any charges yet for your server. However, if you would like to check, here are instructions for monitoring usage.

11. Log in as root use on the AWS Management Console (<https://console.aws.amazon.com/console/home>)
12. From the search box, type "Billing" and select the "Billing and Cost Management" service.
13. When you signed up for a free tier plan, you were given \$100 in credits. So long as your month-to-date cost is less than that, you should not be charged anything.

How to Close the AWS Account

14. Log in as root use on the AWS Management Console (<https://console.aws.amazon.com/console/home>)
15. Click your account name/ID in the top-right corner and select Account.
16. In the top right corner, click the Close Account button.
17. Read the terms, and Close Account.