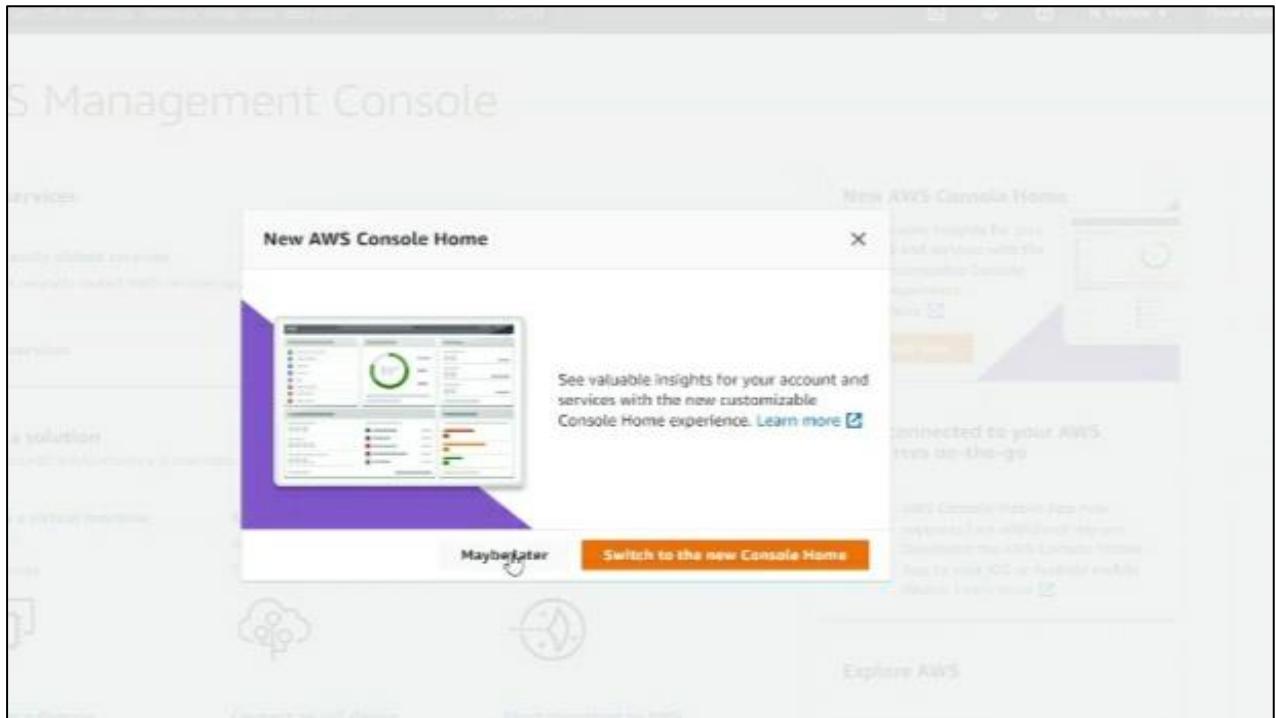


Experiment no: - 04



This screenshot shows the actual 'Console Home' page after switching. The top navigation bar includes the AWS logo, a 'Services' dropdown, a search bar with placeholder 'Search for services, features, blogs, docs, and more', and a keyboard shortcut '[Alt+S]'. Below the search bar is a 'Recent visited' section which is currently empty, showing a placeholder icon of a cube and the text 'No recently visited services'. Underneath this is a section titled 'Explore one of these commonly visited AWS services.' with links for IAM, EC2, S3, RDS, and Lambda. At the bottom of the page are two cards: 'Welcome to AWS' (with a rocket ship icon and 'Getting started with AWS' link) and 'AWS Health' (showing 'Open issues 0' and 'Past 7 days' information).

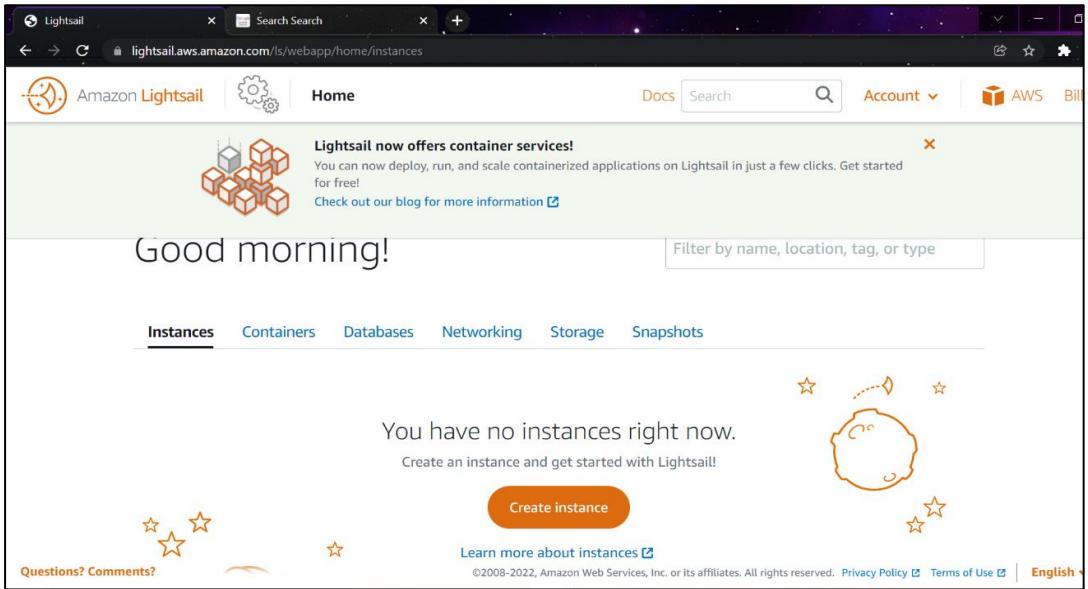
The screenshot shows the AWS EC2 Instances page. A single instance, 'i-0045e69ecda6dda63', is listed as 'Running' with the instance type 't2.micro'. The instance has no alarms and is located in the 'ap-south-1b' availability zone. The 'Launch Instances' button is highlighted at the top right.

The screenshot shows the 'Step 3: Configure Instance Details' step of the AWS instance creation wizard. The 'Auto-assign Public IP' option is selected. Other configuration options include:

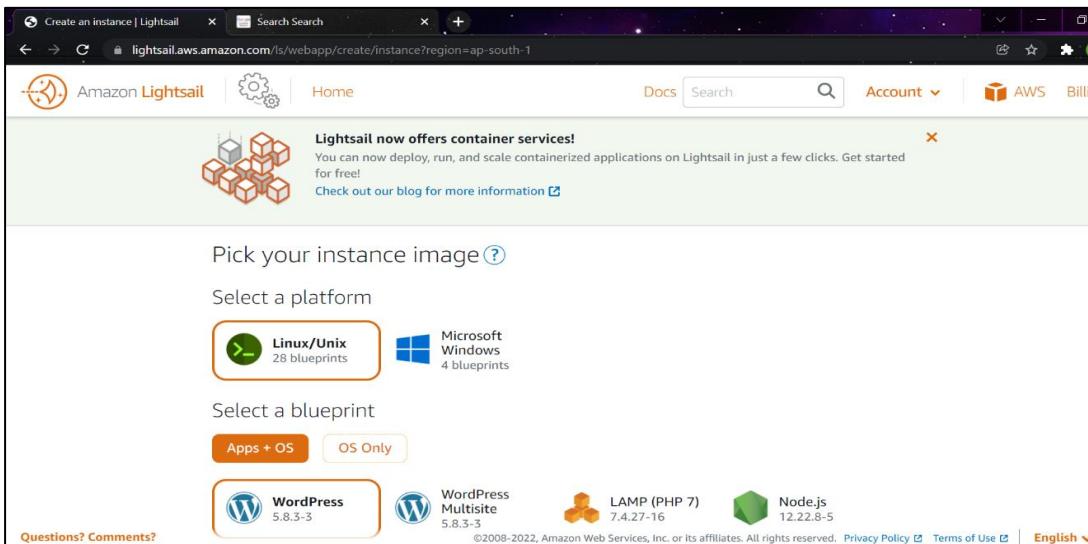
- Purchasing option:** Request Spot instances (unchecked)
- Network:** vpc-0b8bd61a11854afa0 (default)
- Subnet:** No preference (default subnet in any Availability Zone)
- Auto-assign Public IP:** Use subnet setting (Enable)
- Hostname type:** Use subnet setting (IP name)
- DNS Hostname:**
 - Enable IP name IPv4 (A record) DNS requests (unchecked)
 - Enable resource-based IPv4 (A record) DNS requests (checked)
 - Enable resource-based IPv6 (AAAA record) DNS requests (unchecked)
- Placement group:** Add instance to placement group (unchecked)
- Capacity Reservation:** Open
- Domain join directory:** No directory
- IAM role:** None
- Shutdown behavior:** Stop
- Stop - Hibernate behavior:** Enable hibernation as an additional stop behavior (unchecked)
- Enable termination protection:** Protect against accidental termination (unchecked)



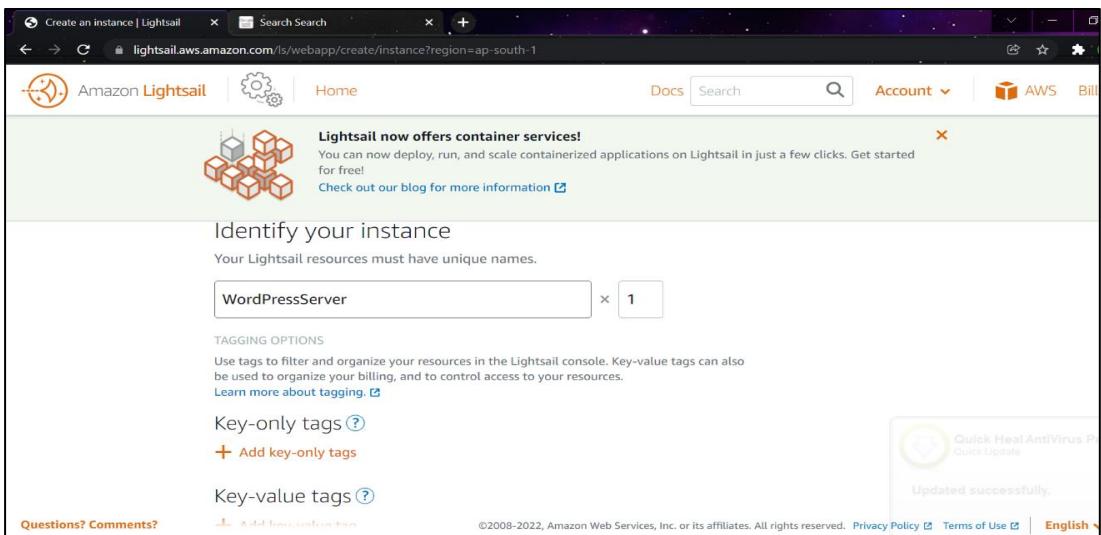
Experiment no: - 05



The screenshot shows the Amazon Lightsail Home page. At the top, there's a banner announcing "Lightsail now offers container services!" with a link to the blog. Below the banner, a large "Good morning!" message is displayed. A search bar and navigation tabs for Instances, Containers, Databases, Networking, Storage, and Snapshots are visible. A central message states "You have no instances right now." followed by "Create an instance and get started with Lightsail!". A prominent orange "Create instance" button is centered. The page features a cartoon sun and stars illustration. At the bottom, there are links for "Questions? Comments?" and copyright information.



The screenshot shows the "Create an instance" page. It starts with the same banner as the home page. Below it, a section titled "Pick your instance image" with a question mark icon is shown. Under "Select a platform", there are two options: "Linux/Unix" (28 blueprints) and "Microsoft Windows" (4 blueprints). The "Linux/Unix" option is highlighted with a green border. Below this, a section titled "Select a blueprint" shows icons for "WordPress 5.8.3-3", "WordPress Multisite 5.8.3-3", "LAMP (PHP 7) 7.4.27-16", and "Node.js 12.22.8-5". The "WordPress" icon is highlighted with a green border. The page includes a "Questions? Comments?" link and copyright information at the bottom.



The screenshot shows the continuation of the "Create an instance" process. It features the same banner and the "Identify your instance" step. A text input field contains "WordPressServer" and a count of "1". Below the input field is a "TAGGING OPTIONS" section with a note about using tags for filtering and organizing resources. There are sections for "Key-only tags" and "Key-value tags", each with a "+ Add key-only tags" or "+ Add key-value tags" button. A success message from "Quick Heal AntiVirus" is displayed in a box, stating "Updated successfully.". The page includes a "Questions? Comments?" link and copyright information at the bottom.

```

lightsail.aws.amazon.com/ls/remote/ap-south-1/instances/WordPressServer/terminal?protocol=ssh
Linux ip-172-26-0-154 4.19.0-18-cloud-amd64 #1 SMP Debian 4.19.208-1 (2021-09-29) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/*copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.

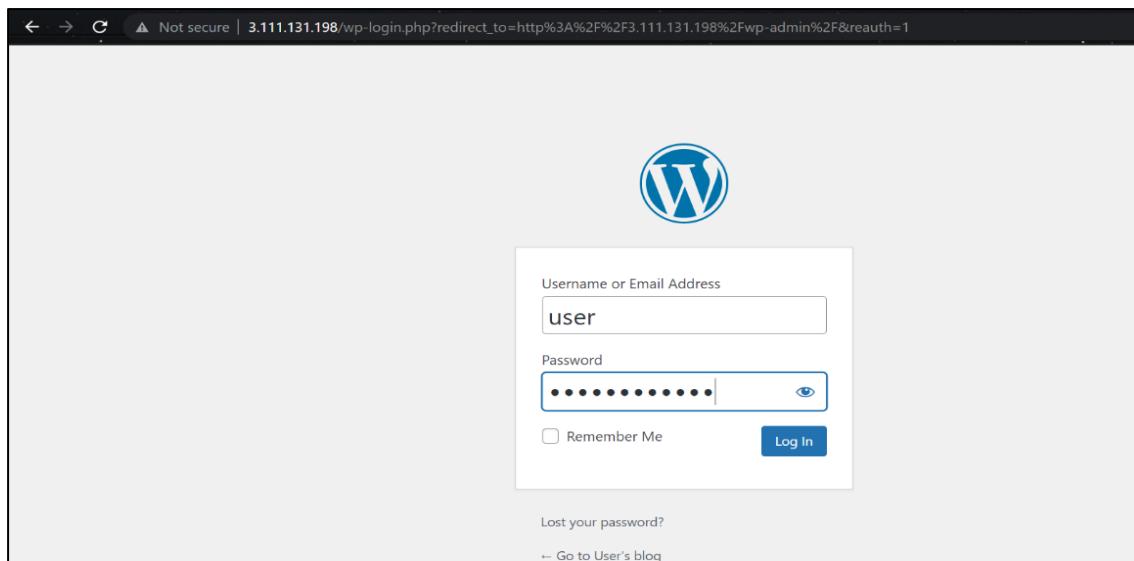
[REDACTED]

*** Welcome to the WordPress packaged by Bitnami 5.8.3-3 ***
*** Documentation: https://docs.bitnami.com/aws/apps/wordpress/ ***
*** https://docs.bitnami.com/aws/
*** Bitnami Forums: https://community.bitnami.com/ ***
bitnami@ip-172-26-0-154:~$ ls
bitnami_application_password bitnami_credentials htdocs stack
bitnami@ip-172-26-0-154:~$ cat bitnami_application_password

```

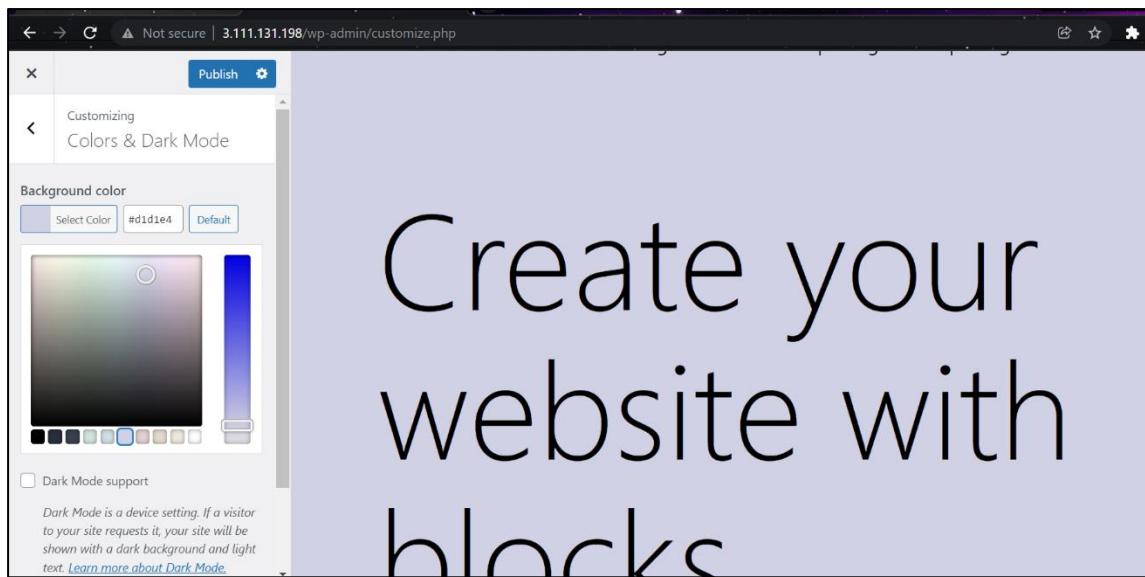
The screenshot shows the Amazon Lightsail web interface. At the top, there's a navigation bar with links for 'Docs', 'Search', 'Account', 'AWS', and 'Billing'. Below the navigation, a banner announces 'Lightsail now offers container services!' with a link to 'Check out our blog for more information'. Underneath, a section titled 'PUBLIC STATIC IP ADDRESS' displays the IP address '3.111.131.198'. A 'Detach' button is visible next to the IP entry. The main content area shows a summary of the instance: 'WordPressServer', '512 MB RAM, 1 vCPU, 20 GB SSD', and 'WordPress'. A small 'wordpresskey' icon is also present.

The screenshot shows a browser window displaying a WordPress blog post. The title of the post is 'Hello world!'. The post content reads: 'Welcome to WordPress. This is your first post. Edit or delete it, then start writing!'. At the bottom of the post, it says 'Published February 10, 2022' and 'Categorized as Uncategorized'.



A screenshot of the WordPress dashboard. The URL in the address bar is `3.111.131.198/wp-admin/`. The dashboard header includes the WordPress logo, the site title 'User's blog', and user information 'Howdy'. On the left is a sidebar with links: Home (Updates 12), Jetpack, Posts, Media, Pages, Comments, Appearance, Plugins (8), Users, Tools, Settings, and a 'Collapse menu' option. The main content area has a yellow banner at the top stating 'WordPress 5.9 is available! Please update now.' Below it, a 'Welcome to WordPress!' message says 'We've assembled some links to get you started:' followed by 'Get Started' (Customize Your Site) and 'Next Steps' (Write your first blog post, Add an About page, Set up your homepage, View your site). To the right is a 'More Actions' section with links: Manage widgets, Manage menus, Turn comments on or off, and Learn more about getting started. A green banner at the bottom says 'Dashboard' and 'You're almost done. Set up Jetpack to enable powerful security and performance tools for WordPress.'

A screenshot of the WordPress customizer interface for 'USER'S BLOG'. The URL in the address bar is `3.111.131.198/wp-admin/customize.php`. The left sidebar shows 'Customizing > Menus' and 'Primary menu'. It includes a 'Menu Name' dropdown set to 'Primary menu' and a list of menu items: Home (Custom Link), About (Page), Blog (Page), Contact (Page), Sample Page (Page), Sample Page (Page), and location (Page). The right side shows a preview of the website with a large 'Create your' placeholder. The navigation bar at the top includes 'Publish' and 'Settings' buttons.



Experiment no: - 06

The screenshot shows the AWS S3 service page. A green banner at the top indicates that a bucket named "clexpbucket" has been successfully created. Below the banner, the "Buckets" section lists one item: "clexpbucket". The bucket details show it was created in the "Asia Pacific (Mumbai) ap-south-1" region and is "Bucket and objects not public".

The screenshot shows the AWS S3 "Upload: status" page. It displays a summary of the upload: "Destination s3://clexpbucket" with "Succeeded" status and "1 file, 134.4 KB (100.00%)". Below this, the "Files and folders" tab is selected, showing a table with one row: "38_bucket_create.png" which is an "image/png" file of size 134.4 KB and status "Succeeded".

Screenshot of the AWS S3 Copy: status page showing successful object copy.

Successfully copied objects
View details below. To view successfully copied objects, go to the [specified destination](#).

Copy: status

The information below will no longer be available after you navigate away from this page.

Summary

Source	Successfully copied	Failed to copy
s3://cclexpbucket	1 object, 134.4 KB	0 objects

Failed to copy | Configuration

Failed to copy (0)

Name	Folder	Type	Last modified	Size	Error
No objects failed to copy.					

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Screenshot of the AWS S3 Glacier landing page.

Amazon S3 Glacier

Amazon S3 Glacier is an extremely low-cost storage service that provides secure, durable, and flexible storage for data backup and archival.

Use the S3 console for an enhanced S3 Glacier experience
Accessing and using S3 Glacier through the S3 APIs and S3 console provides enhanced functionality for data management and cost optimization. To begin using the [S3 console](#) to store your archive datasets in the Amazon S3 Glacier and S3 Glacier Deep Archive storage classes, follow this [getting started tutorial](#).

[Create Vault](#)

 Create Vaults

 Set data retrieval policies

 Set event notifications

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datasets in the Amazon S3 Glacier and S3 Glacier Deep Archive storage classes, follow this [getting started tutorial](#)

Amazon S3 Glacier Vaults

Create Vault Delete Vault Settings

Filter By Name:

Name	Inventory Last Updated	Size (as of last inventory)	# of Archives (as of last inventory)
CCLexp	Not updated yet	--	--

Vault Name: CCLexp

Details Notifications Permissions Vault Lock Tags

Region: [?](#) Asia Pacific (Mumbai)

Created on: [?](#) Mar 23, 2022 2:44:53 PM

Vault ARN: [?](#) arn:aws:glacier:ap-south-1:134233428922:vaults/CCLexp

Inventory Last Updated: [?](#) Not updated yet

Vault Details as of the last inventory update:

Size: [?](#) --

of Archives: [?](#) --

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Experiment no: - 07

The screenshot shows the AWS CloudWatch Metrics Insights interface. At the top, there's a banner with the text "Introducing Amazon CloudWatch Metrics Insights - A fast, flexible, SQL based query engine that enables you analyze, group and aggregate your operational metrics at scale in real time." Below the banner, the CloudWatch Overview page is displayed. It features a search bar, a time range selector (3 hours), and a "Actions" button. The main area is titled "Get started with CloudWatch" and includes a message: "You don't have any alarms, metrics or default dashboard. Once you set them up they will be displayed here. [View getting started page](#)". Below this, there are four cards:

- Create alarms**: Set alarms on any of your metrics to receive notification when your metric crosses your specified threshold.
- Create a default dashboard**: Create and name any CloudWatch dashboard to display it here.
- View logs**: Monitor using your existing system, application and custom log files.
- View events**: Write rules to indicate which events are of interest to your application and what automated action to take.

At the bottom of the page, there are links for Feedback, English (US), Privacy, Terms, and Cookie.

The screenshot shows the "Create alarm" wizard in the AWS CloudWatch Alarms section. The current step is "Step 1: Specify metric and conditions". The left sidebar shows 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 "Preview and create".

Step 1: Specify metric and conditions

Metric

Graph: This alarm will trigger when the blue line goes above the red line for 1 datapoints within 6 hours.

EstimatedCharges

Namespace: AWS/Billing

Metric name: EstimatedCharges

Currency: USD

Statistic: Maximum

Period: 6 hours

Conditions

At the bottom, there are links for Feedback, English (US), Privacy, Terms, and Cookie.

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EstimatedCharges 02/27 03/01 03/03 Statistic Maximum Period 6 hours

Conditions

Threshold type Static Use a value as a threshold Anomaly detection Use a band 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 USD Must be a number

► Additional configuration

Cancel Next

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► Additional configuration

Step 2: Configure actions

Actions Edit

Notification When In alarm, send a notification to "Default_CloudWatch_Alarms_Topic1"

Manage actions The actions are enabled

Step 3: Add name and description

Name and description Edit

Name billing_alarms

Description if user reaches 100\$

Cancel Previous Create alarm

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CloudWatch

Favorites

CloudWatch > Alarms

CloudWatch Alarms

Billing alarms (1)

Hide Auto Scaling alarms Clear selection Create composite alarm Actions

Search Any state Any type < 1 >

Name	State	Last state update	Conditions	Actions
billing_alarms	OK	2022-03-10 07:47:36	EstimatedCharges > 100 for 1 datapoints within 6 hours	Actions enabled Warn

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Successfully created alarm **billing_alarms**.

Some subscriptions are pending confirmation

Amazon SNS doesn't send messages to an endpoint until the subscription is confirmed

View 5NS Subscriptions

Create alarm

In alarm

All alarms

Billing

Logs

Metrics

X-Ray traces

Events

Application monitoring

Insights

Settings

Getting Started

Experiment no: - 08

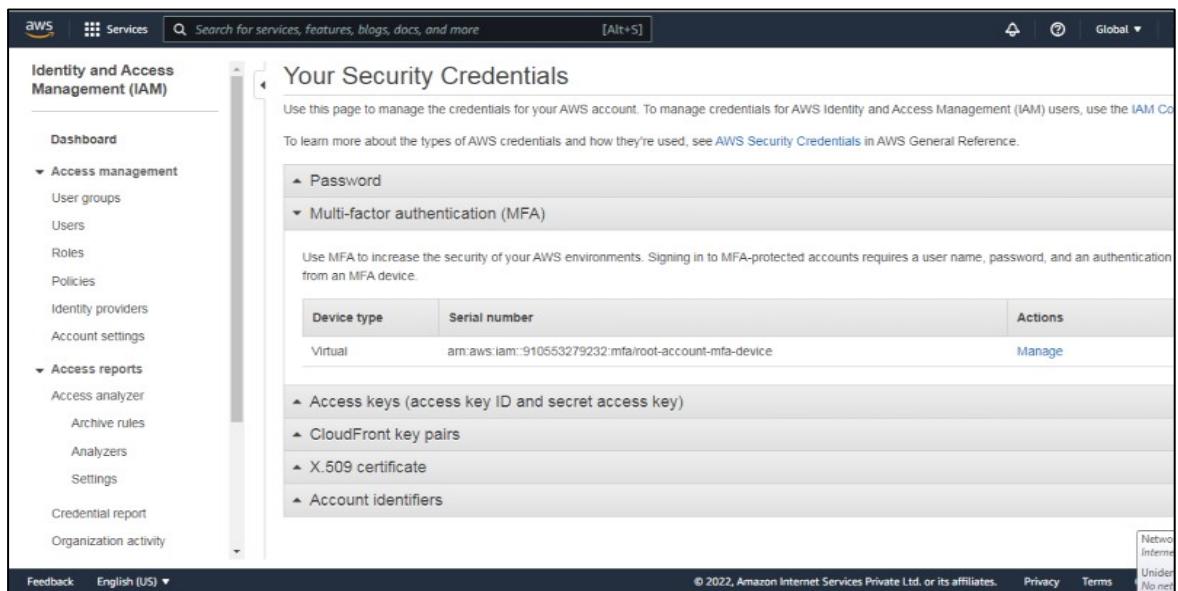
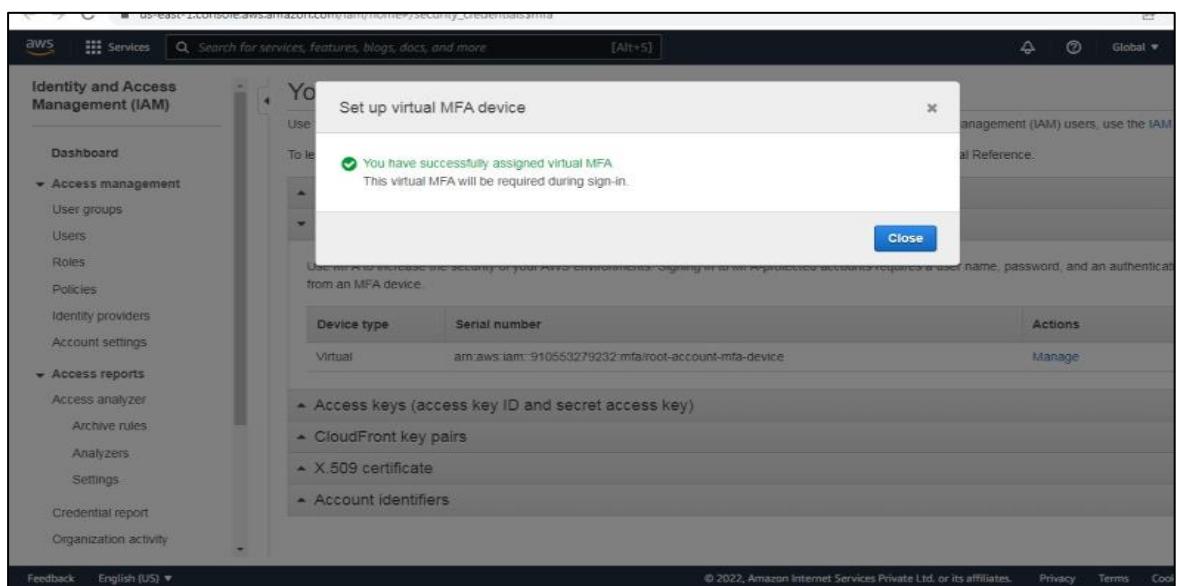
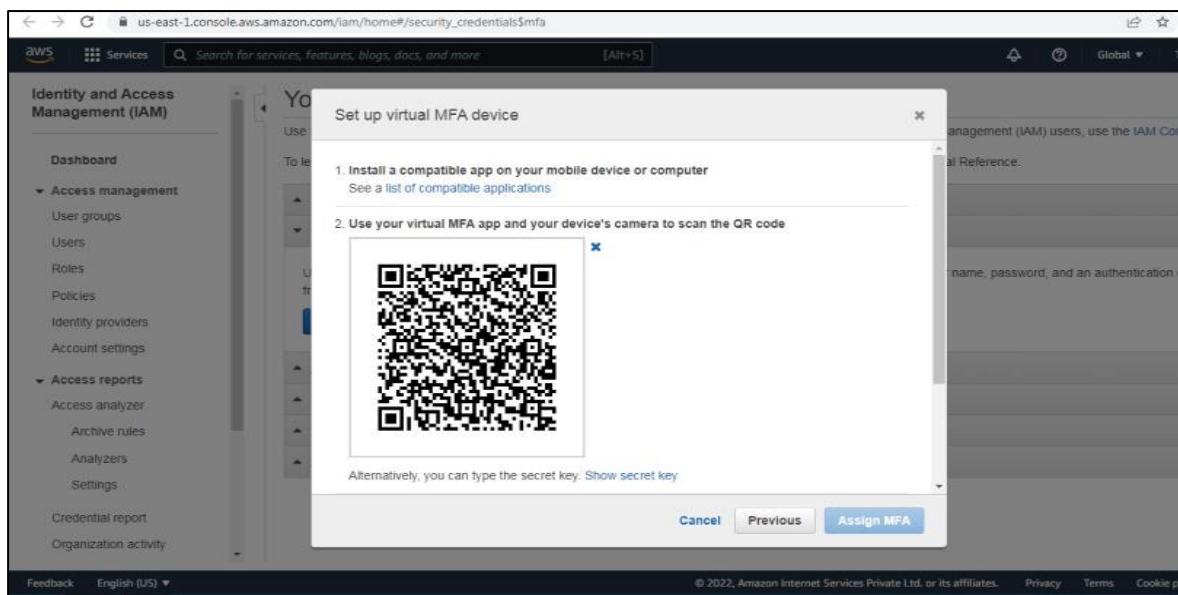
The screenshots illustrate the steps to set up Multi-factor Authentication (MFA) for an AWS account:

- Screenshot 1: Initial MFA Configuration**

The 'Multi-factor authentication (MFA)' section is open, showing options like 'Activate MFA'. A blue box highlights the 'Activate MFA' button.
- Screenshot 2: Selecting MFA Device Type**

A modal window titled 'Manage MFA device' is displayed, asking to choose the type of MFA device. The 'Virtual MFA device' option is selected and highlighted with a blue box.
- Screenshot 3: Setting Up Virtual MFA**

A modal window titled 'Set up virtual MFA device' is displayed, providing instructions to install a compatible app and scan a QR code. It includes a large QR code area labeled 'Show QR code' and a note about alternative secret key entry.



Identity and Access Management (IAM)

Introducing the new IAM dashboard experience
We've redesigned the IAM dashboard experience to make it easier to use. Let us know what you think.

IAM dashboard

Security recommendations

- Root user has MFA
- Root user has no active access keys

IAM resources

User groups	Users	Roles	Policies	Identity providers
0	0	3	0	0

What's new

Updates for features in IAM

AWS Account

Account ID: 910553279232

Account Alias: 910553279232 [Create](#)

Sign-in URL for IAM users in this account: https://910553279232.signin.aws.amazon.com/console

Quick Links

[My security credentials](#)
[Manage your access keys, multi-factor authentication \(MFA\) and other credentials.](#)

Feedback English (US) ▾

Add user

Set user details

You can add multiple users at once with the same access type and permissions. Learn more

User name*: trupti

[Add another user](#)

Select AWS access type

Select how these users will primarily access AWS. If you choose only programmatic access, it does NOT prevent users from accessing the console using an assumed role. Access keys and autogenerated passwords are provided in the last step. Learn more

Select AWS credential type*

Access key - Programmatic access

Enables an **access key ID** and **secret access key** for the AWS API, CLI, SDK, and other development tools.

Password - AWS Management Console access

Enables a **password** that allows users to sign-in to the AWS Management Console.

Console password*

Autogenerated password

Custom password

* Required

[Cancel](#) [Next: Permissions](#)

Feedback English (US) ▾

Create group

Create a group and select the policies to be attached to the group. Using groups is a best-practice way to manage users' permissions by job functions, AWS service access, or your custom permissions. Learn more

Group name:

[Create policy](#) [Refresh](#)

Filter policies [Search](#)

	Policy name	Type	Used as	Description
<input type="checkbox"/>	AdministratorAccess	Job function	None	Provides full access to AWS services and resources.
<input type="checkbox"/>	AdministratorAccess-A...	AWS managed	None	Grants account administrative permissions while explicitly a...
<input type="checkbox"/>	AdministratorAccess-A...	AWS managed	None	Grants account administrative permissions. Explicitly allow...
<input type="checkbox"/>	AlexaForBusinessDevi...	AWS managed	None	Provide device setup access to AlexaForBusiness services.
<input type="checkbox"/>	AlexaForBusinessFullAc...	AWS managed	None	Grants full access to AlexaForBusiness resources and acc...
<input type="checkbox"/>	AlexaForBusinessGate...	AWS managed	None	Provide gateway execution access to AlexaForBusiness se...

[Cancel](#) [Create group](#)

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Create group

Create a group and select the policies to be attached to the group. Using groups is a best-practice way to manage users' permissions by job functions, AWS service access, or your custom permissions. Learn more

Group name

Create policy Refresh

Filter policies ▾ Q AWS Showing 345 results

Policy name	Type	Used as	Description
AWS_ConfigRole	AWS managed	None	Default policy for AWS Config service role. Provides permis...
<input checked="" type="checkbox"/> AWSAccountActivityAcc...	AWS managed	None	Allows users to access the Account Activity page.
AWSAccountManageme...	AWS managed	None	Provides full access to AWS Account Management.
AWSAccountManageme...	AWS managed	None	Provides read-only access to AWS Account Management.
AWSAccountUsageRep...	AWS managed	None	Allows users to access the Account Usage Report page.
AWSAnalyticsDiscover...	AWS managed	None	Provides access for the Discovery Agentless Connector. In t...

Cancel Create group

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Create group

Create a group and select the policies to be attached to the group. Using groups is a best-practice way to manage users' permissions by job functions, AWS service access, or your custom permissions. Learn more

Group name TECOMP14

Create policy Refresh

Filter policies ▾ Q AWS Showing 345 results

Policy name	Type	Used as	Description
AWS_ConfigRole	AWS managed	None	Default policy for AWS Config service role. Provides permis...
<input checked="" type="checkbox"/> AWSAccountActivityAcc...	AWS managed	None	Allows users to access the Account Activity page.
AWSAccountManageme...	AWS managed	None	Provides full access to AWS Account Management.
AWSAccountManageme...	AWS managed	None	Provides read-only access to AWS Account Management
AWSAccountUsageRep...	AWS managed	None	Allows users to access the Account Usage Report page.

Cancel Create group

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Sales

Services

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Add user

1 2 3 4 5

Set permissions

Add user to group Copy permissions from existing user Attach existing policies directly

Add user to an existing group or create a new one. Using groups is a best-practice way to manage user's permissions by job functions. Learn more

Add user to group

Create group Refresh

Q Search Showing 1 result

Group	Attached policies
<input checked="" type="checkbox"/> TECOMP14	AWSAccountActivityAccess

Set permissions boundary

Cancel Previous Next: Tags

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Add user

Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

User details

User name	trupti
AWS access type	Programmatic access and AWS Management Console access
Console password type	Autogenerated
Require password reset	Yes
Permissions boundary	Permissions boundary is not set

Permissions summary

The user shown above will be added to the following groups.

Type	Name
Group	TECOMP14

Create user

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

User details

User name	trupti
AWS access type	Programmatic access and AWS Management Console access
Console password type	Autogenerated
Require password reset	Yes
Permissions boundary	Permissions boundary is not set

Permissions summary

The user shown above will be added to the following groups.

Type	Name
Group	TECOMP14
Managed policy	IAMUserChangePassword

Tags

No tags were added.

Create user

Add user

Success

You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time.

Users with AWS Management Console access can sign-in at: <https://910553279232.signin.aws.amazon.com/console>

Download .csv

	User	Access key ID	Secret access key	Password	Email login instructions
▶	trupti	AKIA5IAJUNMAHILYOI2LU	***** Show	***** Show	Send email ↗

Close

Screenshot of the AWS IAM Users list interface.

The top navigation bar shows "Identity and Access Management (IAM)". A banner message says "Introducing the new Users list experience. We've redesigned the Users list experience to make it easier to use. Let us know what you think." A green success message says "The user [trupti] have been created."

The left sidebar includes "Access management" (User groups, Users, Roles, Policies, Identity providers, Account settings) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity).

The main content area shows the "Users (1) Info" section. It defines an IAM user as an identity with long-term credentials used to interact with AWS. A table lists one user:

User name	Groups	Last activity	MFA	Password a...	Active key age
trupti	TECOMP14	Never	None	✓ 1 minute ago	✓ 1 minute ago

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Screenshot of the AWS IAM Dashboard.

The top navigation bar shows "Identity and Access Management (IAM)". A banner message says "Introducing the new IAM dashboard experience. We've redesigned the IAM dashboard experience to make it easier to use. Let us know what you think."

The left sidebar includes "Access management" (User groups, Users, Roles, Policies, Identity providers, Account settings) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity).

The main content area shows "IAM resources" statistics:

User groups	Users	Roles	Policies	Identity providers
1	1	3	0	0

It also shows "Security recommendations" with two items:

- ✓ Root user has MFA: Having multi-factor authentication (MFA) for the root user improves security for this account.
- ✓ Root user has no active access keys: Using access keys attached to an IAM user instead of the root user improves security.

The right sidebar shows "AWS Account" details: Account ID (910553279232), Account Alias (910553279232), and Sign-in URL (<https://910553279232.signin.aws.amazon.com/console>).

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Screenshot of the AWS IAM Policies Summary page.

The top navigation bar shows "Identity and Access Management (IAM)". The left sidebar includes "Access management" (User groups, Users, Roles, Policies, Identity providers, Account settings) and "Access reports" (Access analyzer, Archive rules, Analyzers, Settings, Credential report, Organization activity). The "Policies" section is selected.

The main content area shows the "Summary" of the "AWSAccountActivityAccess" policy. The Policy ARN is "arn:aws:iam::aws:policy/AWSAccountActivityAccess". The Description is "Allows users to access the Account Activity page." The Permissions tab is selected, showing the JSON policy code:

```
1: {
2:     "Version": "2012-10-17",
3:     "Statement": [
4:         {
5:             "Effect": "Allow",
6:             "Action": [
7:                 "aws-portal:ViewBilling"
8:             ],
9:             "Resource": "*"
10:        }
11:    ]
12: }
```

Other tabs include Policy usage, Policy versions, and Access Advisor.

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Screenshot of the AWS IAM Manage console access dialog box.

The dialog box is titled "Manage console access" and shows the following configuration:

- Console access:** Set to "Enable".
- Set password:** Set to "Custom password" and the value is "Trupti19". The "Show password" checkbox is checked.
- Require password reset:** Unchecked.

At the bottom right are "Cancel" and "Apply" buttons. The "Apply" button is highlighted in blue.

Below the dialog box, a table shows existing access keys:

Access key ID	Created	Last used	Status
AKIAJAJUNMAHLYO12LU	2022-03-17 10:42 UTC+0530	N/A	Active Make inactive

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Screenshot of the AWS IAM User summary page for user "trupti".

The summary page includes the following information:

- User ARN:** arn:aws:iam::910553279232:user/trupti
- Path:** /
- Creation time:** 2022-03-17 10:42 UTC+0530

The "Security credentials" tab is selected, showing:

- Sign-in credentials:**
 - Summary:** Console sign-in link: https://910553279232.signin.aws.amazon.com/console
 - Console password:** Enabled (never signed in) | Manage
 - Assigned MFA device:** Not assigned | Manage
 - Signing certificates:** None

The "Access keys" section is also visible.

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Experiment no: - 09

The screenshot shows the AWS EC2 Instances page. On the left, there's a sidebar with various navigation options like EC2 Dashboard, Global View, Events, Tags, Limits, Instances (with sub-options like Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, and Dedicated Hosts), Images (AMIs, AMI Catalog), and Elastic Block Store (Volumes, Snapshots, Lifecycle Manager). The main content area has a search bar at the top. Below it, a table lists instances. One instance is selected: "i-0cc4e7d869db244b5", which is "Running" and of type "t2.micro". A detailed view of this instance is shown below the table, including its instance ID, public IP (15.206.149.250), and private IP (172.31.10.115). The interface is the "New EC2 Experience".

This screenshot is similar to the one above but shows a slightly different view of the instance details. It includes additional networking information such as the Public IPv4 DNS name (ec2-15-206-149-250.ap-south-1.compute.amazonaws.com) and the Private IP DNS name (ip-172-31-10-115.ap-south-1.compute.internal). The rest of the interface and instance details are identical to the first screenshot.

AWS Services Search for services, features, blogs, docs, and more [Alt+S] Mumbai View connection details

Amazon RDS X Successfully created database database-1

RDS > Databases

Databases Group resources Create database

DB identifier Role Engine Region & AZ Size Status

database-1 MySQL Community ap-south-1b db.t2.micro

Feedback English (US) © 2022, Amazon Internet Services Private Ltd. or its affiliates. Privacy Terms Conditions

The screenshot shows the AWS RDS (Relational Database Service) console. On the left, there's a sidebar with various navigation options like Dashboard, Databases, Query Editor, etc. The main area is titled 'Databases' and shows a single entry: 'database-1'. This entry includes columns for DB identifier, Instance, Engine, Region & AZ, Size, and Status. The status is shown as green with a checkmark. At the top right of the main area, there are buttons for 'Group resources', 'Modify', 'Actions', 'Restore from S3', and 'Create database'.

```
ubuntu@ip-172-31-10-115: ~
SEL01@SEL01-PC MINGW32 ~
$ cd Downloads
SEL01@SEL01-PC MINGW32 ~/Downloads
$ chmod 400 Amisha_CCL9.pem
SEL01@SEL01-PC MINGW32 ~/Downloads
$ ssh -i^A
SEL01@SEL01-PC MINGW32 ~/Downloads
$ ssh -i Amisha_CCL9.pem ubuntu@15.206.149.250
The authenticity of host '15.206.149.250 (15.206.149.250)' can't be established.
ED25519 key fingerprint is SHA256:T3snW7joo/bVjlf+etmzXq2N
UmX8ho5o5ZK84ccsNU.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '15.206.149.250' (ED25519) to the list of known hosts.
Welcome to Ubuntu 18.04.6 LTS (GNU/Linux 5.4.0-1060-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/advantage

 System information as of Wed Mar  9 08:25:42 UTC 2022

 System load:  0.08      Processes:         93
 Usage of /:   15.2% of 7.69GB  Users logged in:     0
 Memory usage: 19%          IP address for eth0: 172.31.10.115
 Swap usage:   0%

 0 updates can be applied immediately.

The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described
in the individual files in /usr/share/doc/*copyright.

Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
```

The terminal window shows the user attempting to SSH into an Ubuntu 18.04.6 LTS instance. It starts with navigating to the 'Downloads' directory and changing permissions for a file named 'Amisha_CCL9.pem'. Then, it runs 'ssh -i^A' which triggers a warning about the host's fingerprint. The user responds with 'yes' to the prompt. The terminal then displays the standard Ubuntu welcome message, system information (load average, memory usage, swap usage), and update status. Finally, it shows the copyright and warranty information at the bottom.

```
ubuntu@ip-172-31-10-115: ~
<command>".
See "man sudo_root" for details.

ubuntu@ip-172-31-10-115:~$ sudo apt-get update
Hit:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic
InRelease
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates InRelease [88.7 kB]
Get:3 http://security.ubuntu.com/ubuntu bionic-security InRelease [88.7 kB]
Get:4 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-backports InRelease [74.6 kB]
Get:5 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-universe amd64 Packages [8570 kB]
Get:6 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages [2117 kB]
Get:7 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/universe Translation-en [4941 kB]
Get:8 http://security.ubuntu.com/ubuntu bionic-security/main Translation-en [373 kB]
Get:9 http://security.ubuntu.com/ubuntu bionic-security/restricted amd64 Packages [646 kB]
Get:10 http://security.ubuntu.com/ubuntu bionic-security/restricted Translation-en [88.3 kB]
Get:11 http://security.ubuntu.com/ubuntu bionic-security/universe amd64 Packages [1179 kB]
Get:12 http://security.ubuntu.com/ubuntu bionic-security/universe Translation-en [271 kB]
Get:13 http://security.ubuntu.com/ubuntu bionic-security/multiverse amd64 Packages [17.6 kB]
Get:14 http://security.ubuntu.com/ubuntu bionic-security/multiverse Translation-en [3660 B]
Get:15 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/multiverse amd64 Packages [151 kB]
Get:16 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic/multiverse Translation-en [108 kB]
Get:17 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64 Packages [2465 kB]
Get:18 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main Translation-en [465 kB]
Get:19 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/restricted amd64 Packages [671 kB]
Get:20 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/restricted Translation-en [92.1 kB]
Get:21 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe amd64 Packages [1793 kB]
Get:22 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/universe Translation-en [388 kB]
Get:23 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/multiverse amd64 Packages [24.2 kB]
```

```
ubuntu@ip-172-31-10-115: ~
Fetched 24.7 MB in 8s (3207 kB/s)
Reading package lists... Done
ubuntu@ip-172-31-10-115:~$ sudo apt-get install mysql
Reading package lists... Done
Building dependency tree
Reading state information... Done
E: Unable to locate package mysql
ubuntu@ip-172-31-10-115:~$ Mysql -h "database-1.cr4it2v94d9x.ap-south-1.rds.amazonaws.com" -u admin -p
Command 'Mysql' not found, did you mean:
  command 'mysql' from deb mysql-client-core-5.7
  command 'mysql' from deb mariadb-client-core-10.1
Try: sudo apt install <deb name>
ubuntu@ip-172-31-10-115:~$ mysql -h "database-1.cr4it2v94d9x.ap-south-1.rds.amazonaws.com" -u admin -p
Command 'mysql' not found, but can be installed with:
sudo apt install mysql-client-core-5.7
sudo apt install mariadb-client-core-10.1
ubuntu@ip-172-31-10-115:~$ mysql -h database-1.cr4it2v94d9x.ap-south-1.rds.amazonaws.com -u admin -p
Command 'mysql' not found, but can be installed with:
sudo apt install mysql-client-core-5.7
sudo apt install mariadb-client-core-10.1
ubuntu@ip-172-31-10-115:~$ sudo apt install mysql-client-core-5.7
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libaio1
The following NEW packages will be installed:
  libaio1 mysql-client-core-5.7
0 upgraded, 2 newly installed, 0 to remove and 48 not upgraded.
Need to get 6642 kB of archives.
After this operation, 30.0 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64 libaio1 amd64 0.3.110-5ubuntu0.1 [6476 B]
Get:2 http://ap-south-1.ec2.archive.ubuntu.com/ubuntu bionic-updates/main amd64 mysql-client-core-5.7 amd64 5.7.37-0ubuntu0.18.04.1 [6635 kB]
Fetched 6642 kB in 2s (2952 kB/s)
Selecting previously unselected package libaio1:amd64.
(Reading database ... 57598 files and directories currently installed.)
Preparing to unpack .../libaio1_0.3.110-5ubuntu0.1_amd64.deb ...
Unpacking libaio1:amd64 (0.3.110-5ubuntu0.1) ...
Selecting previously unselected package mysql-client-core-5.7.
```

```
ubuntu@ip-172-31-10-115: ~
0 upgraded, 0 newly installed, 0 to remove and 48 not upgraded.
ubuntu@ip-172-31-10-115:~$ Mysql -h database-1.cr4it2v94d9x.ap-south-1.rds.amazonaws.com -u admin -p
Command 'Mysql' not found, did you mean:

  command 'mysql' from deb mysql-client-core-5.7
  command 'mysql' from deb mariadb-client-core-10.1

Try: sudo apt install <deb name>

ubuntu@ip-172-31-10-115:~$ mysql -h database-1.cr4it2v94d9x.ap-south-1.rds.amazonaws.com -u admin -p
Enter password:

ERROR 2003 (HY000): Can't connect to MySQL server on 'database-1.cr4it2v94d9x.ap-south-1.rds.amazonaws.com' (110)
ubuntu@ip-172-31-10-115:~$ ubuntu@ip-172-31-10-115:~$ mysql -h database-1.cr4it2v94d9x.ap-south-1.rds.amazonaws.com -u admin -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 13
Server version: 5.7.21-log MySQL Community Server (GPL)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| innodb |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0.00 sec)

mysql> create databases hello;
ERROR 1064 (42000): You have an error in your SQL syntax; c
heck the manual that corresponds to your MySQL server versi
on for the right syntax to use near 'databases hello' at li
ne 1
mysql> create database hello;
Query OK, 1 row affected (0.00 sec)
```

```
ubuntu@ip-172-31-10-115: ~
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| innodb |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0.00 sec)

mysql> create databases hello;
ERROR 1064 (42000): You have an error in your SQL syntax; c
heck the manual that corresponds to your MySQL server versi
on for the right syntax to use near 'databases hello' at li
ne 1
mysql> create database hello;
Query OK, 1 row affected (0.00 sec)

mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| hello |
| innodb |
| mysql |
| performance_schema |
| sys |
+-----+
6 rows in set (0.00 sec)

mysql> use hello;
Database changed
mysql> show databases;
+-----+
| Database |
+-----+
| information_schema |
| hello |
| innodb |
| mysql |
| performance_schema |
| sys |
+-----+
6 rows in set (0.00 sec)

mysql> |
```

```
ubuntu@ip-172-31-10-115: ~
o use near '

show database' at line 1
mysql> create table students (id int(10), name varchar(50),
mysql> create table students (id int city varchar(50))      ,
   _city varchar(50));
Query OK, 0 rows affected (0.02 sec)

mysql> show tables;
+-----+
| Tables_in_hello |
+-----+
| students        |
+-----+
1 row in set (0.00 sec)

mysql> create table students (id int(10), name varchar(50),
   _city varchar(50));
ERROR 1050 (42S01): Table 'students' already exists
mysql> insert into students values(101,'amisha','chiplun');

Query OK, 1 row affected (0.01 sec)

mysql> show tables;
+-----+
| Tables_in_hello |
+-----+
| students        |
+-----+
1 row in set (0.00 sec)

mysql> select * from students
->
  -> select name from students
  -> select name from students;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax
o use near 'select name from students'
select name from students' at line 3
mysql> select * from students;
+----+----+----+
| id | name | city  |
+----+----+----+
| 101 | amisha | chiplun |
+----+----+----+
1 row in set (0.00 sec)

mysql>
```

```
ubuntu@ip-172-31-10-115: ~
+----+----+----+
| 101 | amisha | chiplun |
+----+----+----+
1 row in set (0.00 sec)

mysql> insert into students values(102,'admin','khed');
Query OK, 1 row affected (0.00 sec)

mysql> select * from students;
+----+----+----+
| id | name | city  |
+----+----+----+
| 101 | amisha | chiplun |
| 102 | admin  | khed  |
+----+----+----+
2 rows in set (0.00 sec)

mysql> update students set name='shital', city='london' where id=101;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from students;
+----+----+----+
| id | name | city  |
+----+----+----+
| 101 | shital | london |
| 102 | admin  | khed  |
+----+----+----+
2 rows in set (0.00 sec)

mysql> delete from students where id=102;
Query OK, 1 row affected (0.01 sec)

mysql> select * from students;
+----+----+----+
| id | name | city  |
+----+----+----+
| 101 | shital | london |
+----+----+----+
1 row in set (0.00 sec)

mysql> drop table students;
Query OK, 0 rows affected (0.01 sec)

mysql> select * from students;
ERROR 1146 (42S02): Table 'hello.students' doesn't exist
mysql> show tables;
Empty set (0.01 sec)

mysql>
```

Experiment no: - 10

The screenshot shows the AWS Management Console with the "Add user" page. A success message box is displayed, stating: "Success: You successfully created the users shown below. You can view and download user security credentials. You can also email users instructions for signing in to the AWS Management Console. This is the last time these credentials will be available to download. However, you can create new credentials at any time." Below the message, it says "Users with AWS Management Console access can sign-in at: https://134233428922.sigin.aws.amazon.com/console". A "Download .csv" button is present. A table lists a single user: "serverless-admin" with Access key ID "AKIAR6QHPSO5KY4K5Z5O" and Secret access key "***** Show". Navigation tabs at the top include "Services" and "Global". A navigation bar at the bottom includes "Feedback", "English (US)", "Privacy", "Terms", and "Conditions".

The screenshot shows the AWS Lambda console with the "helloworld" function details. A green success message box at the top states: "Successfully created the function helloworld. You can now change its code and configuration. To invoke your function with a test event, choose "Test". The main interface shows the function name "helloworld", a "Layers" section with "(0)", and buttons for "+ Add trigger" and "+ Add destination". On the right, there is a "Description" field with a dash, a "Last modified" field showing "34 seconds ago", and a "Function ARN" field containing "arn:aws:lambda:us-east-1:134233428922:function:helloworld". Below the main area are tabs for "Code", "Test", "Monitor", "Configuration", "Aliases", and "Versions", with "Code" currently selected. The "Code source" section shows an "index.js" file with a "Deploy" button. A "File" menu at the top includes "Edit", "Find", "View", "Go", "Tools", and "Window". A navigation bar at the bottom includes "Feedback", "English (US)", "Privacy", "Terms", and "Conditions".

The screenshot shows the AWS Lambda console interface. At the top, there's a navigation bar with links like 'Apps', 'Gmail', 'YouTube', and 'Maps'. Below it, the AWS logo and 'Services' button are visible, along with a search bar containing 'Search for services, features, blogs, docs, and more' and a keyboard shortcut '[Alt+S]'. On the right side of the header, there are icons for notifications, help, and account information, followed by 'N. Virginia'.

The main content area has a green banner at the top stating 'The test event Test was successfully saved.' Below this, there are tabs for 'Code', 'Test', 'Monitor', 'Configuration', 'Aliases', and 'Versions'. The 'Code' tab is selected.

In the 'Code source' section, there's a file browser showing a 'helloworld' folder with an 'index.js' file. A search bar above the file list contains 'index.js'. To the right of the file list, there's a 'Test' button, a 'Deploy' button, and a message 'Changes not deployed'. Below the file list, there's a 'Response' block containing a JSON object:

```
{ "statusCode": 200, "body": "\"Hello from Lambda!\""}
```

Underneath the response, there's a 'Function Logs' section with detailed log entries:

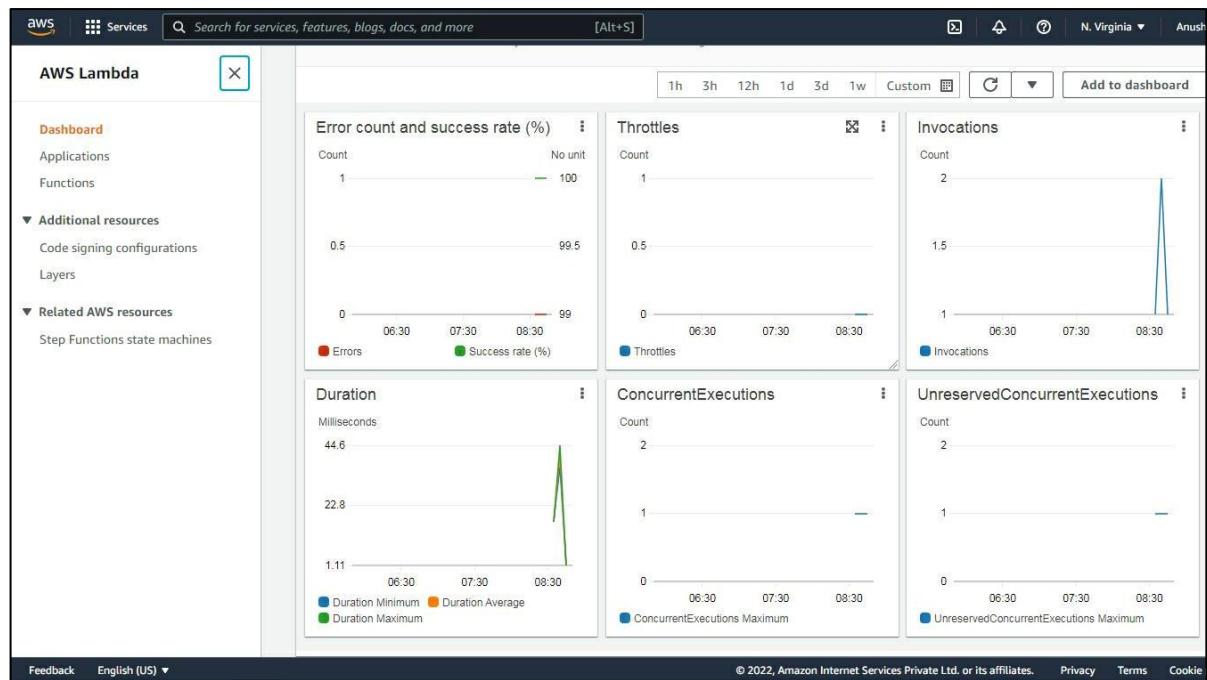
```
START RequestId: 4513e91c-895f-4aab-ae50-b2e33b719d0c Version: $LATEST
END RequestId: 4513e91c-895f-4aab-ae50-b2e33b719d0c
REPORT RequestId: 4513e91c-895f-4aab-ae50-b2e33b719d0c Duration: 16.86 ms Billed Duration: 17 ms Memory Size: 128 MB Max Memory Used: 56 MB
Request ID
4513e91c-895f-4aab-ae50-b2e33b719d0c
```

At the bottom of the page, there are links for 'Feedback', 'English (US)', '© 2022, Amazon Internet Services Private Ltd. or its affiliates.', 'Privacy', 'Terms', and 'Conditions'.

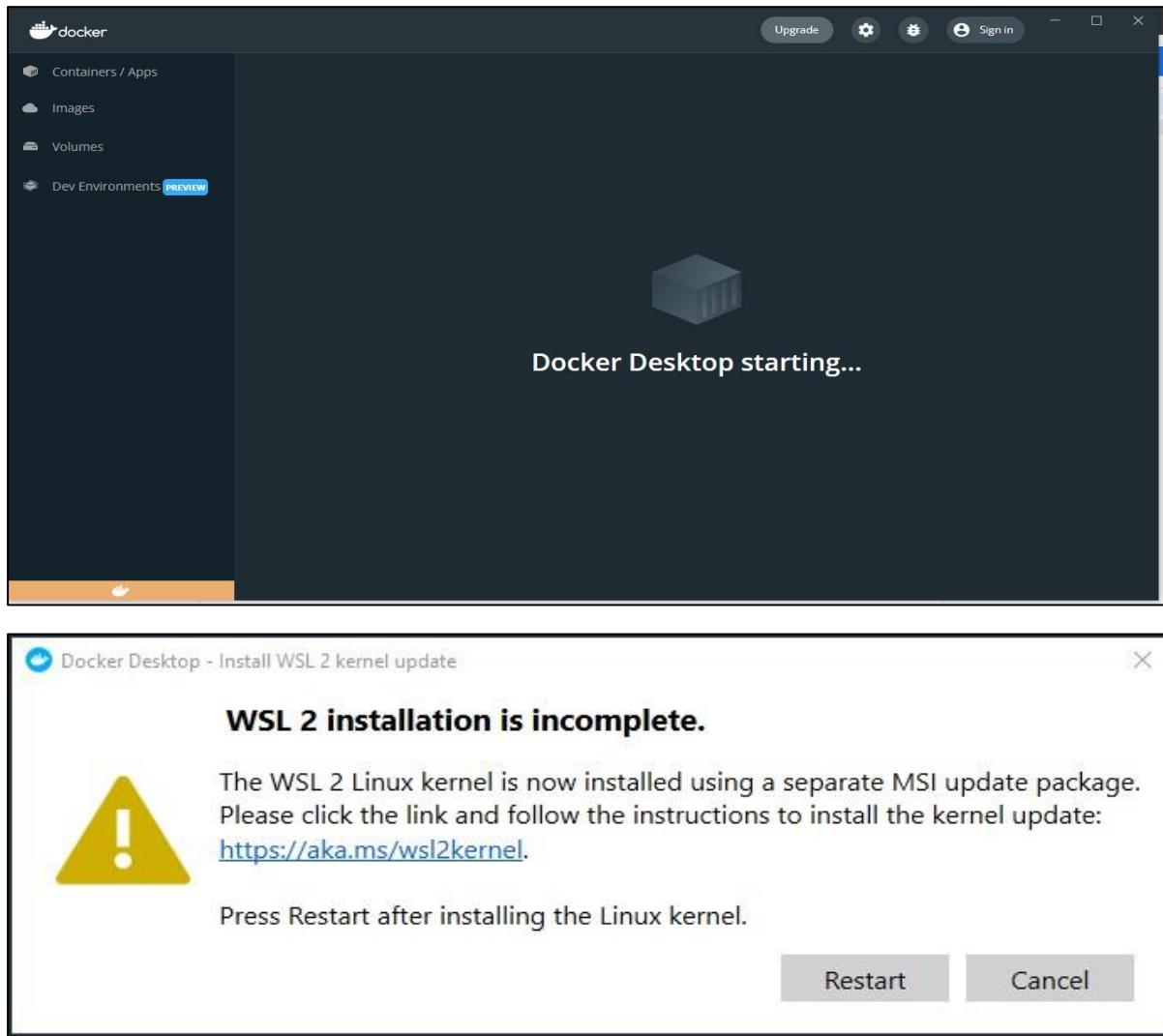
This screenshot is nearly identical to the one above, showing the AWS Lambda configuration page. The main difference is in the 'Function Logs' section of the 'Execution result' tab, which now displays a different Request ID:

```
START RequestId: 58964d53-4192-410d-a8a9-73def2c8e5d9 Version: $LATEST
END RequestId: 58964d53-4192-410d-a8a9-73def2c8e5d9
REPORT RequestId: 58964d53-4192-410d-a8a9-73def2c8e5d9 Duration: 44.58 ms Billed Duration: 45 ms Memory Size: 128 MB Max Memory Used: 56 MB
Request ID
58964d53-4192-410d-a8a9-73def2c8e5d9
```

The rest of the interface, including the tabs, file browser, and status messages, remains the same.



Experiment no: - 11



Step 4 - Download the Linux kernel update package

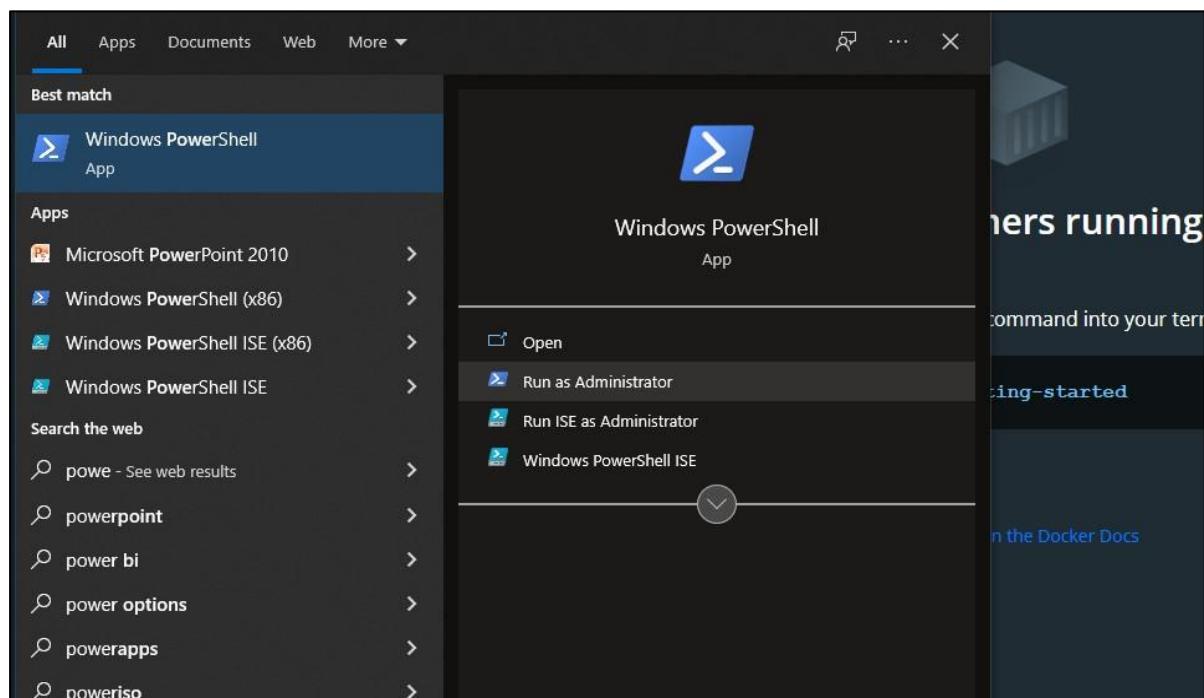
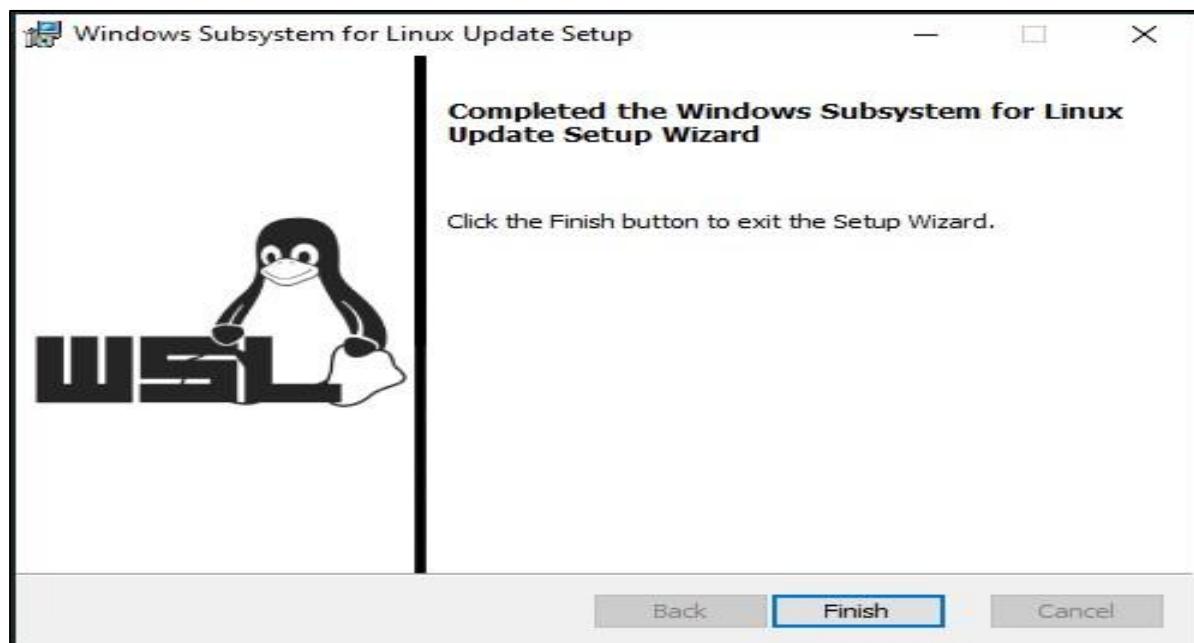
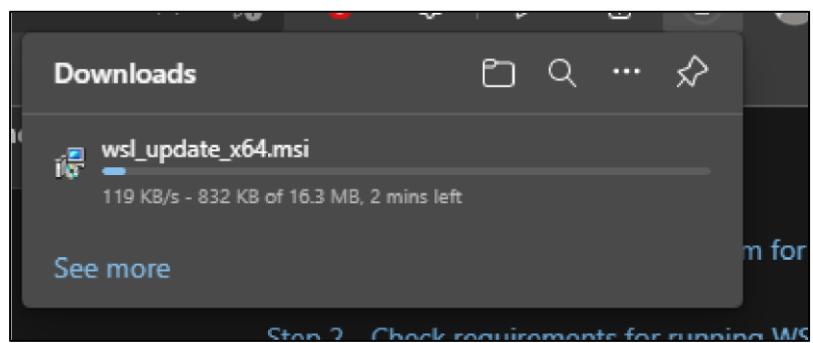
1. Download the latest package:

- [WSL2 Linux kernel update package for x64 machines](#)

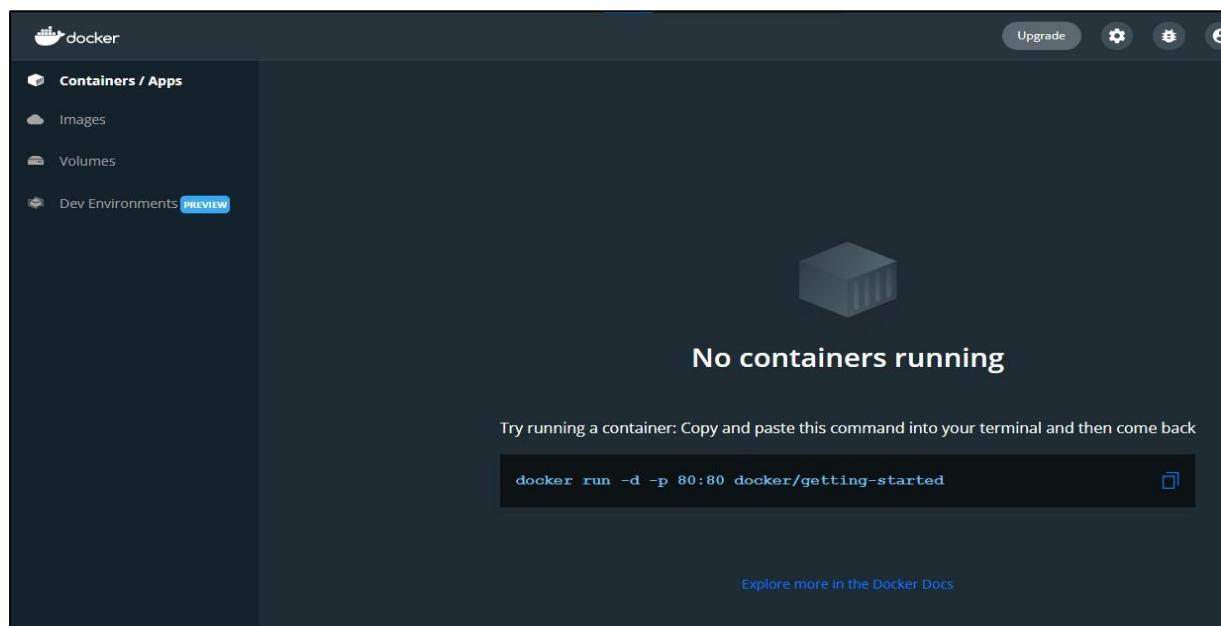
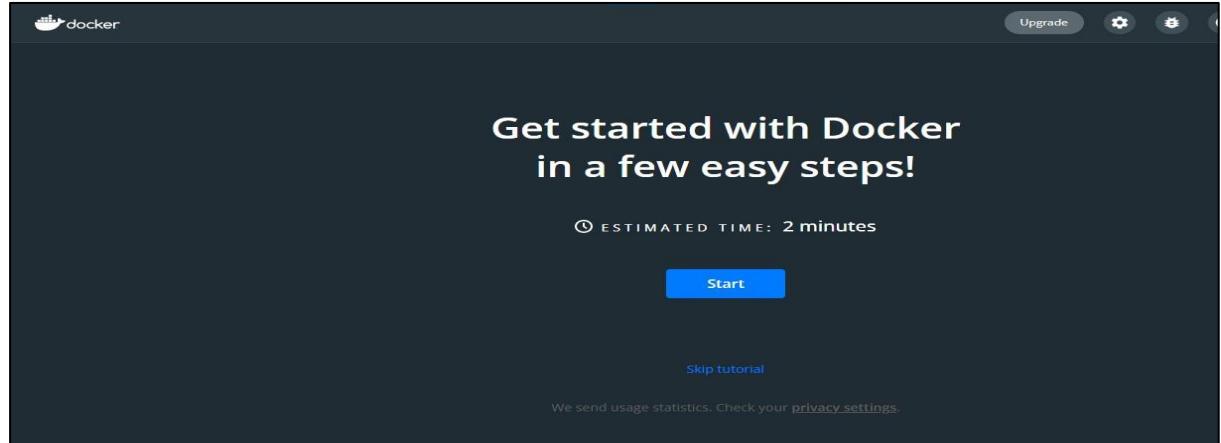
ⓘ Note

If you're using an ARM64 machine, please download the [ARM64 package](#) instead. If you're not sure what kind of machine you have, open Command Prompt or PowerShell and enter: `systeminfo | find "System Type"`. **Caveat:** On non-English Windows versions, you might have to modify the search text, translating the "System Type" string. You may also need to escape the quotations for the find command. For example, in German `systeminfo | find '"Systemtyp"'`.

2. Run the update package downloaded in the previous step. (Double-click to run - you will be prompted for elevated permissions, select 'yes' to approve this installation.)



```
PS C:\WINDOWS\system32> wsl --set-default-version 2
For information on key differences with WSL 2 please visit https://aka.ms/wsl2
The operation completed successfully.
PS C:\WINDOWS\system32> ■
```



```
➤ Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Admin> docker --version
Docker version 20.10.13, build a224086
PS C:\Users\Admin> docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
4d32b49e2995: Pull complete
Digest: sha256:bea6d19168bbfd6af8d77c2cc3c572114eb5d113e6f422573c93cb605a0e2ffb
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
PS C:\Users\Admin> -
```

```
➤ root@320cd6b62afa:/ 
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Admin> docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
ubuntu          latest   ff0fea8310f3  2 weeks ago  72.8MB
PS C:\Users\Admin> docker run -it ubuntu /bin/bash
root@320cd6b62afa:#
```

```
➤ Windows PowerShell
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Admin> docker ps
CONTAINER ID        IMAGE           COMMAND       CREATED          STATUS          PORTS     NAMES
PS C:\Users\Admin> docker container ls -a
CONTAINER ID        IMAGE           COMMAND       CREATED          STATUS          PORTS     NAMES
320cd6b62afa      "bin/bash"      "10 minutes ago"   Exited (0) 7 minutes ago          mystifying_kirch
PS C:\Users\Admin> docker container rm f45775828da6
Error: No such container: f45775828da6
PS C:\Users\Admin> docker container stop f45775828da6
Error response from daemon: No such container: f45775828da6
PS C:\Users\Admin> docker container rm f45775828da6
Error: No such container: f45775828da6
PS C:\Users\Admin> docker ps
CONTAINER ID        IMAGE           COMMAND       CREATED          STATUS          PORTS     NAMES
PS C:\Users\Admin> docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
ubuntu          latest   ff0fea8310f3  2 weeks ago  72.8MB
PS C:\Users\Admin> docker images rm f45775828da6
"docker images" requires at most 1 argument.
See 'docker images --help'.

Usage: docker images [OPTIONS] [REPOSITORY[:TAG]]
```

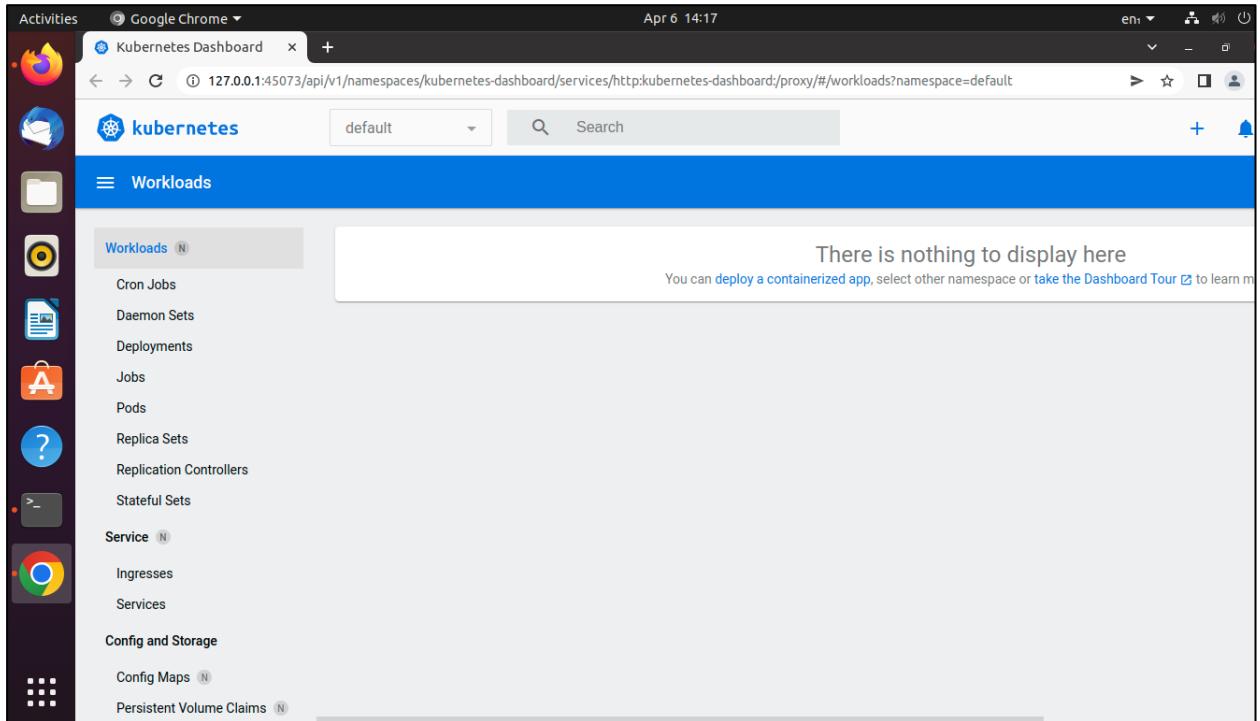
List images

```
PS C:\Users\Admin> docker images rm ff0fea8310f3
"docker images" requires at most 1 argument.
See 'docker images --help'.
```

Usage: docker images [OPTIONS] [REPOSITORY[:TAG]]

```
List images
PS C:\Users\Admin> docker images
REPOSITORY      TAG      IMAGE ID      CREATED      SIZE
ubuntu          latest   ff0fea8310f3  2 weeks ago  72.8MB
PS C:\Users\Admin> -
```

Experiment no: - 12



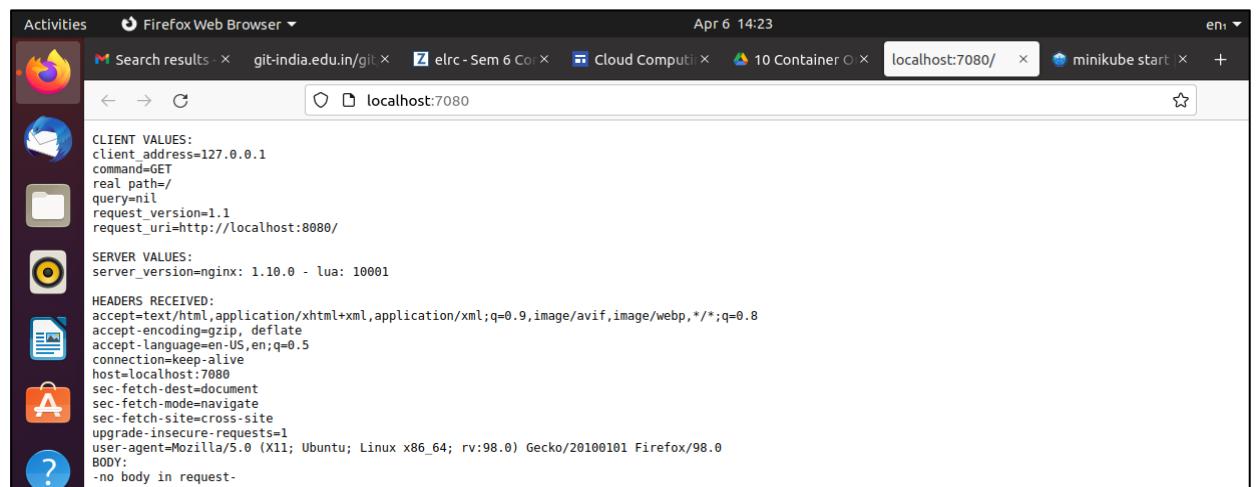
```
cnl@cnl-HP-280-G4-MT-Business-PC:~$ curl -LO https://storage.googleapis.com/minikube/releases/latest/minikube-linux-amd64
% Total    % Received % Xferd  Average Speed   Time   Time     Current
          Dload  Upload Total Spent   Left Speed
100 69.2M  100 69.2M    0      0  4210k      0  0:00:16  0:00:16  --:--:-- 5520k
cnl@cnl-HP-280-G4-MT-Business-PC:~$ sudo install minikube-linux-amd64 /usr/local/bin/minikube
[sudo] password for cnl:
cnl@cnl-HP-280-G4-MT-Business-PC:~$ minikube start
🌟 minikube v1.25.2 on Ubuntu 20.04
🌟 Automatically selected the docker driver. Other choices: none, ssh
👉 Starting control plane node minikube in cluster minikube
🕒 Pulling base image ...
🔥 Creating docker container (CPUs=2, Memory=2200MB) ...
💡 This container is having trouble accessing https://k8s.gcr.io
💡 To pull new external images, you may need to configure a proxy: https://minikube.sigs.k8s.io/docs/reference/networking/proxy/
💡 Preparing Kubernetes v1.23.3 on Docker 20.10.12 ...
    └ kubelet.housekeeping-interval=5m
    └ Generating certificates and keys ...
    └ Booting up control plane ...
    └ Configuring RBAC rules ...
💡 Verifying Kubernetes components...
    └ Using image gcr.io/k8s-minikube/storage-provisioner:v5
💡 Enabled addons: default-storageclass, storage-provisioner
💡 kubectl not found. If you need it, try: 'minikube kubectl -- get pods -A'
💡 Done! kubectl is now configured to use "minikube" cluster and "default" namespace by default
cnl@cnl-HP-280-G4-MT-Business-PC:~$ minikube kubectl -- get po -A
Error: unknown command "kubectl" for "minikube"
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Did you mean this?
  kubectl

Run 'minikube --help' for usage.
cnl@cnl-HP-280-G4-MT-Business-PC:~$ minikube kubectl -- get po -A
NAMESPACE      NAME          READY   STATUS    RESTARTS   AGE
kube-system    coredns-64897985d-5887c   1/1     Running   0          103s
kube-system    etcd-minikube   1/1     Running   0          2m9s
kube-system    kube-apiserver-minikube  1/1     Running   0          118s
kube-system    kube-controller-manager-minikube  1/1     Running   0          2m8s
kube-system    kube-proxy-p5dpd   1/1     Running   0          103s
kube-system    kube-scheduler-minikube  1/1     Running   0          118s
kube-system    storage-provisioner  1/1     Running   1 (62s ago) 108s
cnl@cnl-HP-280-G4-MT-Business-PC:~$ minikube dashboard
  Enabling dashboard ...
    Using image kubernetesui/dashboard:v2.3.1
    Using image kubernetesui/metrics-scraper:v1.0.7
  Verifying dashboard health ...
  Launching proxy ...
  Verifying proxy health ...
  Opening http://127.0.0.1:45073/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/ in your default browser...
[8254:8254:0406:141222.224295:ERROR:sandbox_linux.cc(377)] InitializeSandbox() called with multiple threads in process gpu-process.
^C
cnl@cnl-HP-280-G4-MT-Business-PC:~$ kubectl create deployment hello-minikube --image=k8s.gcr.io/echoserver:1.4
deployment.apps/hello-minikube created
cnl@cnl-HP-280-G4-MT-Business-PC:~$ kubectl expose deployment hello-minikube --type=NodePort --port=8080
service/hello-minikube exposed
cnl@cnl-HP-280-G4-MT-Business-PC:~$ kubectl get services hello-minikube
NAME        TYPE      CLUSTER-IP   EXTERNAL-IP   PORT(S)      AGE
hello-minikube  NodePort  10.105.89.217 <none>       8080:31861/TCP  25s
cnl@cnl-HP-280-G4-MT-Business-PC:~$ kubectl port-forward service/hello-minikube 7080:8080
error: unable to forward port because pod is not running. Current status:Pending_
cnl@cnl-HP-280-G4-MT-Business-PC:~$ kubectl port-forward service/hello-minikube 7080:8080
Forwarding from 127.0.0.1:7080 -> 8080
Forwarding from [::1]:7080 -> 8080
Handling connection for 7080
Handling connection for 7080
Handling connection for 7080
Handling connection for 7080
E0406 13:49:09.886078 12225 portforward.go:234] lost connection to pod
cnl@cnl-HP-280-G4-MT-Business-PC:~$ minikube delete --all
  Deleting "minikube" in docker ...
  Removed all traces of the "minikube" cluster.
  Successfully deleted all profiles
cnl@cnl-HP-280-G4-MT-Business-PC:~$ 

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cnl@cnl-HP-280-G4-MT-Business-PC:~$ curl "http://localhost:7080" -d "a=b&c=d"
CLIENT VALUES:
client_address=127.0.0.1
command=POST
real path/
query=nil
request_version=1.1
request_uri=http://localhost:8080/

SERVER VALUES:
server_version=nginx: 1.10.0 - lua: 10001

HEADERS RECEIVED:
accept=/*
content-length=7
content-type=application/x-www-form-urlencoded
host=localhost:7080
user-agent=curl/7.68.0
BODY:
cnl@cnl-HP-280-G4-MT-Business-PC:~$ minikube delete --all
  Deleting "Minikube" in docker ...
  Removing /home/cnl/.minikube/machines/minikube ...
  Removed all traces of the "minikube" cluster.
  Successfully deleted all profiles
cnl@cnl-HP-280-G4-MT-Business-PC:~$ 

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