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Creating a CloudWatch Dashboard for EC2 Instance

Level: Fundamental

Amazon EC2 Amazon CloudWatch Amazon Web Services

 0h 13m 22s left

End Lab

Open Console

Validation

Lab Credentials

User Name ⓘ

Whiz_User_62241.23278897



Password ⓘ

9d04f019-ca9a-46c3-9d6e-39c4ae1010db



Access Key ⓘ

AKIAW6VO7MOWPELCGOE5



Secret Key ⓘ




IMPT/QC6NrI+Ewg+RxKIGkLxBRKcPtQS56jd0FhX



Support Documents



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Cloud Administrator



Compute, Management & Governance

Lab Steps

Task 1: Sign in to AWS Management Console

1. Click on the  button, and you will get redirected to AWS Console in a new browser tab.

2. On the AWS sign-in page,

- Leave the Account ID as default. Never edit/remove the 12 digit Account ID present in the AWS Console. otherwise, you cannot proceed with the lab.
- Now copy your **User Name** and **Password** in the Lab Console to the **IAM Username and Password** in AWS Console and click on the **Sign in** button

3. Once Signed In to the AWS Management Console, Make the default AWS Region as **US East (N. Virginia) us-east-1**.

Task 2: Launch an EC2 instance

1. Make sure you are in the **N.Virginia Region**.

2. Navigate to EC2 by clicking on the  menu in the top, then click on **EC2** in the **Compute** section.

3. Navigate to **Instances** from the left side menu and click on 

4. Enter **Name** as **whizlabs**.

5. Choose an Amazon Machine Image (AMI): Select **Amazon Linux 2 AMI** in the drop-down.

6. Choose **architecture** as **64-bit(x86)**

▼ **Application and OS Images (Amazon Machine Image)** [Info](#)

[Privacy](#) - [Terms](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Recents

Quick Start

Amazon Linux
aws

Ubuntu
ubuntu

Windows
Microsoft

Red Hat
Red Hat

SUSE Linux
SUSE

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)

Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type
ami-0cff7528ff583bf9a (64-bit (x86)) / ami-00bf5f1c358708486 (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Amazon Linux 2 Kernel 5.10 AMI 2.0.20220606.1 x86_64 HVM gp2

Architecture

AMI ID

64-bit (x86)

ami-0cff7528ff583bf9a

7. Choose an **Instance Type**: Select **t2.micro**.

▼ Instance type [Info](#)

Instance type

t2.micro
Family: t2 1 vCPU 1 GiB Memory
On-Demand Linux pricing: 0.0116 USD per Hour
On-Demand Windows pricing: 0.0162 USD per Hour

Free tier eligible

[Compare instance types](#)

8. For **Key pair**: Select **Create a new key pair** Button

- Key pair name: **WhizKey**
- Key pair type: **RSA**
- Private key file format: **.pem**

9. Select **Create key pair** Button.

Create key pair

×

Key pairs allow you to connect to your instance securely.

[Privacy](#) - [Terms](#)

Enter the name of the key pair below. When prompted, store the private key in a secure and accessible location on your computer. **You will need it later to connect to your instance.** [Learn more](#)

Key pair name

WhizKey

The name can include upto 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

☒ RSA

RSA encrypted private and public key pair

☐ ED25519

ED25519 encrypted private and public key pair (Not supported for Windows instances)

Private key file format

☒ .pem

For use with OpenSSH

☐ .ppk

For use with PuTTY

Cancel

Create key pair

10. In Network Settings Click on **Edit** Button:

- Auto-assign public IP: **Enable**
- Select **Create new Security group**
- Security group name : Enter **MyEC2Server_SG**
- Description : Enter **Security Group to allow traffic to EC2**

Auto-assign public IP [Info](#)

Enable

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☒ Create security group

☐ Select existing security group

Security group name - *required*

[Privacy](#) - [Terms](#)

MyEC2Server_SG

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and ._-:/()#,@[]+=&;{}!\$*

Description - required [Info](#)

Security Group to allow traffic to EC2

- Check Allow SSH from and Select Anywhere from dropdown
- To add **SSH**,

- Choose Type: **SSH**
- Source: Select **Anywhere**

8. **Leave** the rest of the things as default.

9. Click on the **Launch instance**

10. **Launch Status:** Your instance is now launching. Click on the instance ID and wait for complete initialization of instance (until the status changes to Running).

Instances (1) Info								
<input type="text" value="Filter instances"/> < 1 >								
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	
<input type="checkbox"/>	whizlabs	i-0fd9f5d4746241ce8	Running	t2.micro	Initializing	No alarms	us-east-1c	

11. Note the **Public IPv4 Address** and **Instance ID** of the EC2 instance. A sample is shown in the screenshot below.

EC2 > Instances > i-036a56e74cbcf9831

Instance summary for i-036a56e74cbcf9831 (whizlabs) [Info](#)

Updated less than a minute ago

Instance ID i-036a56e74cbcf9831 (whizlabs)	Public IPv4 address 34.200.248.133 open address	Private IPv4 addresses 172.31.2.10
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-34-200-248-133.compute-

[Privacy](#) - [Terms](#)

Task 3: Creating a CloudWatch Dashboard

1. Wait for 5-10 minutes for CloudWatch to gather metrics from EC2 Instance.
2. Navigate to **CloudWatch** by clicking on the **Services** menu at the top of the page, then click on **CloudWatch** in the **Management and Governance** section.
3. Click on **Dashboards** on the left panel.
4. Click on **Create dashboard**.
5. Give a name to your dashboard.
 - Dashboard name: Enter **MyEC2**
 - Click on **Create dashboard** button.

Create new dashboard ✕

Dashboard name

MyEC2

Valid characters in dashboard names include "0-9A-Za-z- _".

Cancel **Create dashboard**

5. We have to select a widget type to configure and add to this dashboard. Select **Line**.

Select a widget type to add to the dashboard.

Explorer
A single widget with multiple tag-based graphs

Line
Compare metrics over time

Stacked area
Compare the total over time

Number
Instantly see the latest value for a metric

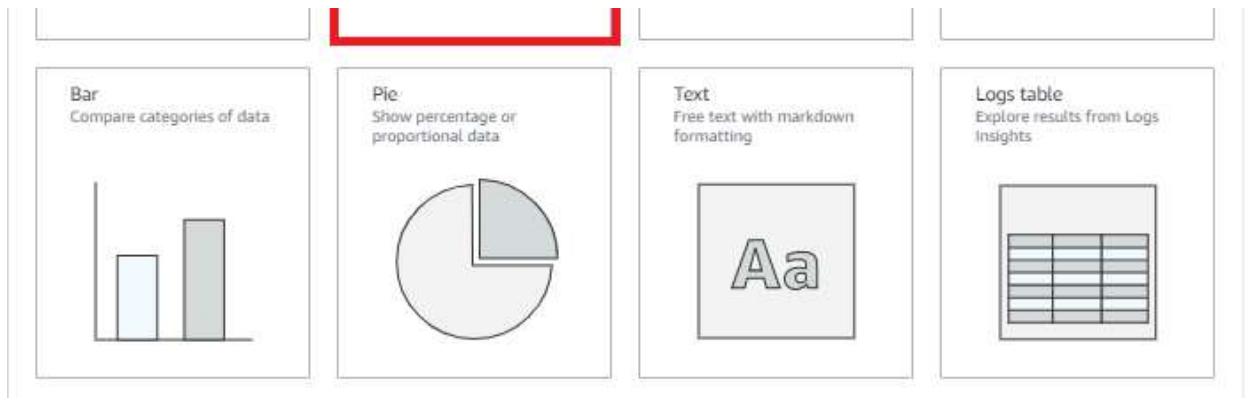




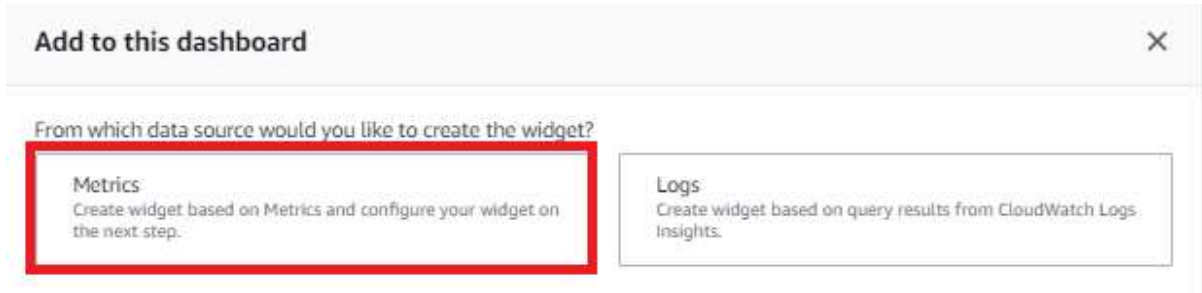




[Privacy](#) - [Terms](#)



6. Select **Metrics** as data source.

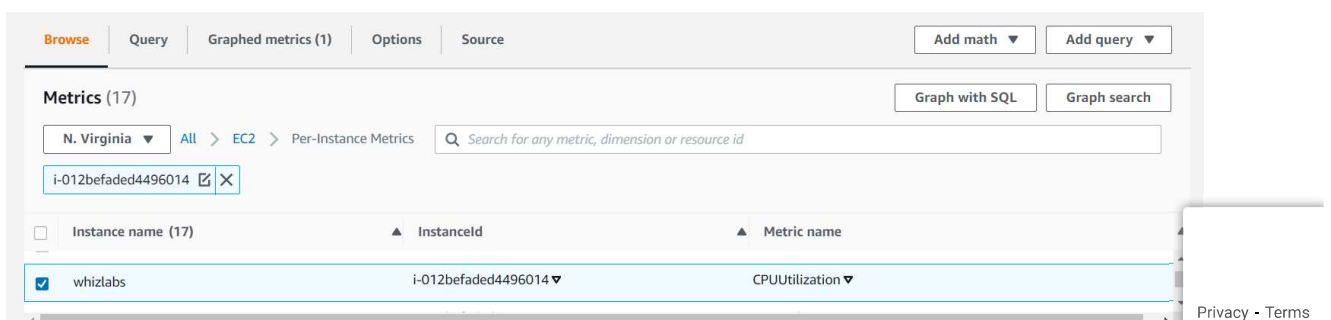


7. You will see a metric graph. Under **All metrics**, search and choose **EC2** (since we are going to watch the metrics of EC2 which we created earlier).

8. Under EC2, choose **Per-Instance Metrics**.

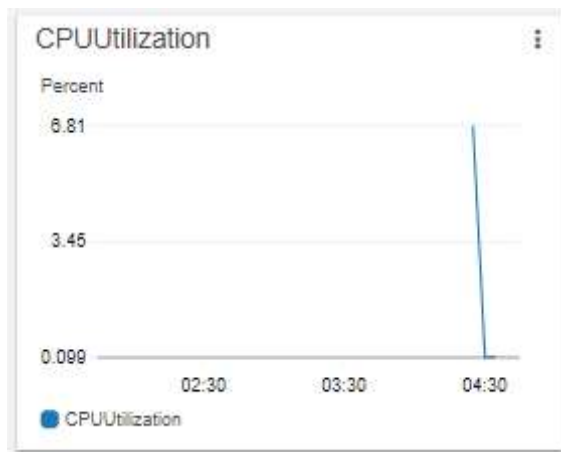


9. **Paste the copied Instance id** in the search bar and select the **CPUUtilization** from the metrics and click on **Create Widget** button.



10. **Note: If you don't see the CPUUtilization metrics, wait for 5 minutes.**

11. You have successfully created a **Line widget** for CPU Utilization.



Task 4: Creating different Widgets for same Metric

Stacked Area

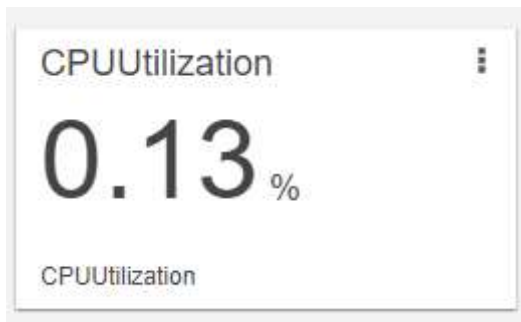
1. In the dashboard, click on **Add widget** and select **Stacked area**. Click on **Metrics**.
2. You will see a metric graph. Under **All metrics**, search and choose **EC2** (since we are going to watch the metrics of EC2 which we have created earlier).
3. Under EC2, choose **Per-Instance Metrics**.
4. Search and select the **CPUUtilization** from the metrics and click on **Create Widget** button.
5. You have successfully created a **Stacked Area widget** for CPU Utilization.




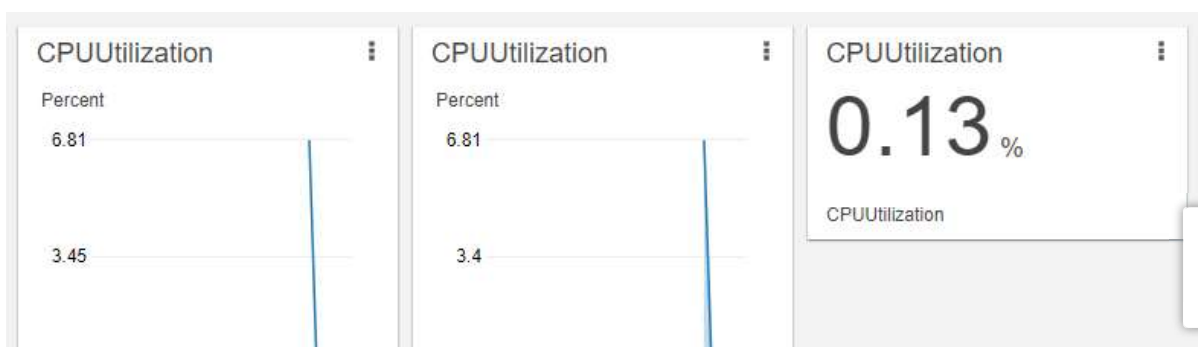


Number

1. In the dashboard, click on **Add widget** and select **Number**.
2. You can see a metric graph. Under **All metrics**, search and choose **EC2** (since we are going to watch the metrics of EC2 which we have created earlier).
3. Under EC2, choose **Per-Instance Metrics**.
4. Search and select the **CPUUtilization** from the metrics and click on **Create Widget** button.
5. You have successfully created a **Number widget** for CPU Utilization.



6. Click on  to save the widgets.
7. Refresh the page, until the metric value is shown.
8. Using these steps, you can use the widgets to create your own dashboard for metrics.
9. **Note:** The actual metric generated depends on the CPU Utilization.





Task 5: Validation Test

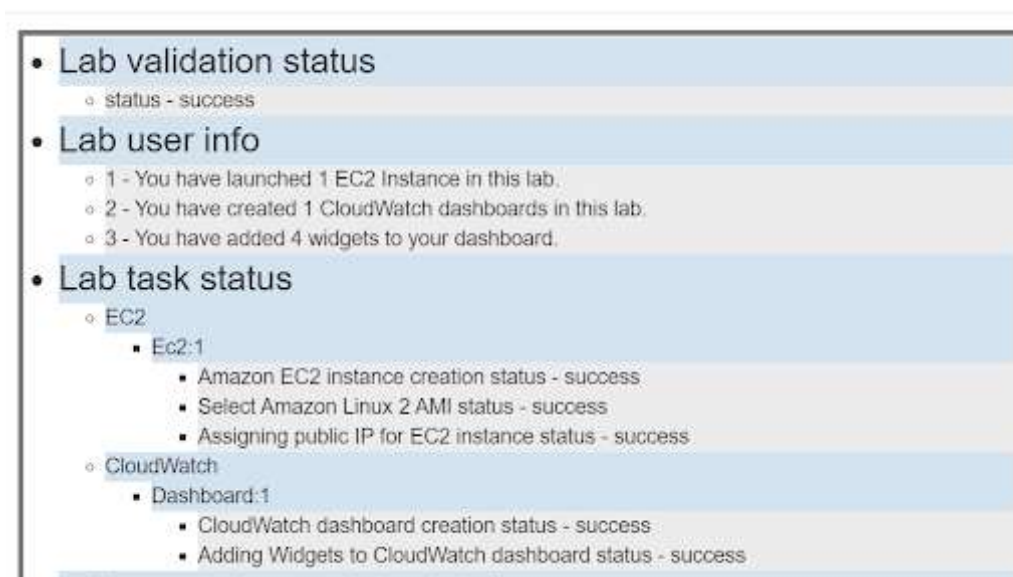
1. Once the lab steps are completed, please click on the



on the left side panel.

2. This will validate the resources in the AWS account and displays whether you have completed this lab successfully or not.

3. Sample output :



Completion and Conclusion

1. You have successfully launched an EC2 Instance.
2. You have created a CloudWatch dashboard.
3. You have successfully created different widgets for the same metric.

End Lab

1. Sign out of the AWS Account.
 2. You have successfully completed the lab.
 3. Once you have completed the steps, click on
- from your whizlabs dashboard.

➔ End Lab

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