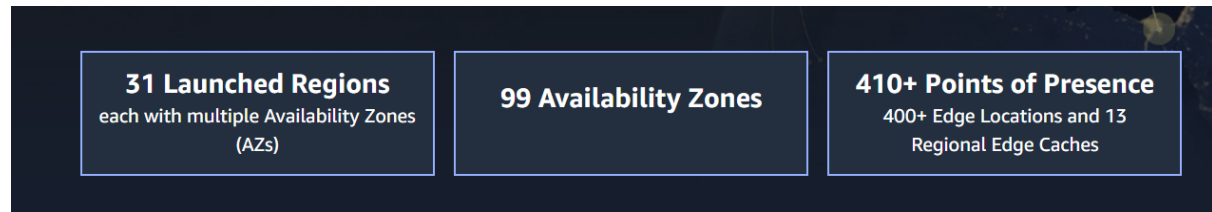


Cloud

Regions and Availability Zones



2. AWS calculator

The AWS Price Calculator is a tool provided by Amazon Web Services (AWS) that allows you to estimate the cost of using AWS services based on your specific needs and usage patterns. Here's how to use it:

1. Go to the AWS Price Calculator page: <https://calculator.aws/>
2. Select the region where you will be using the services. The pricing may vary depending on the region.
3. Choose the AWS services you want to use by clicking on the relevant boxes. You can select multiple services.
4. Configure the settings for the services you've selected, such as the number of instances, type of instance, and storage capacity.
5. You can also adjust the usage hours, data transfer, and other parameters to customize your estimate.
6. Review your estimate and see the projected monthly cost for using the selected services.

The AWS Price Calculator provides an estimate of the monthly cost based on the information you provide. Keep in mind that this is only an estimate and the actual cost may vary depending on factors like usage, data transfer, and instance types. Additionally, discounts and other promotions may also affect the final cost. It's always a good idea to regularly review your usage and adjust your resources accordingly to optimize your costs.

Cloud

The screenshot shows the AWS Pricing Calculator interface for configuring an Amazon EC2 instance. The 'Compute Savings Plans' option is selected, which includes a 3-year reservation term and 'All upfront' payment options. The total upfront cost is \$97,209.72 USD, and the total monthly cost is \$0.00 USD. Other options like 'EC2 Instance Savings Plans' and 'On-Demand' are also visible but not selected. The 'On-Demand' section shows an expected utilization of 100 and a usage type of 'Utilization percent per month'. The instance price is \$4.07/Hour, and the monthly cost is \$2971.10/Month. The bottom of the calculator shows the total upfront and monthly costs, along with buttons to 'Save and view summary' and 'Save and add service'.

Option	Reservation term	Payment Options	Upfront	Monthly
Compute Savings Plans	3 year	All upfront	\$97,209.72	\$0.00
EC2 Instance Savings Plans	3 year	All upfront	\$95,448.96	\$0.00
On-Demand	-	-	-	\$2,971.10

The screenshot shows the AWS Management Console search results for 'vpcF'. The search results are displayed in a list format, showing the following services:

- VPC** (Isolated Cloud Resources)
- Managed Services** (IT operations management for AWS)
- AWS Firewall Manager** (Central management of firewall rules)
- Detective** (Investigate and analyze potential security issues)

The left sidebar shows the navigation menu with options like Dashboard, Global View, and various services. The top navigation bar shows the current region as us-east-1.

Select vpc

Cloud

The screenshot shows the AWS Management Console VPC dashboard for the us-east-1 region. The top navigation bar includes the AWS logo, a search bar, and a list of services. The left sidebar contains a navigation menu with options like 'VPC dashboard', 'EC2 Global View', and 'Virtual private cloud'. The main content area displays 'Resources by Region' for US East 1, showing a grid of resource counts: VPCs (1), NAT Gateways (0), Subnets (6), VPC Peering Connections (0), Route Tables (1), Network ACLs (1), Internet Gateways (1), Security Groups (31), Egress-only Internet (0), and Customer Gateways (0). Buttons for 'Create VPC' and 'Launch EC2 Instances' are visible at the top.

Create vpc

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

VPC settings

Resources to create [Info](#)
Create only the VPC resource or the VPC and other networking resources.

☒ VPC only ☐ VPC and more

Name tag - optional
Creates a tag with a key of 'Name' and a value that you specify.

devops-vpc

IPv4 CIDR block [Info](#)
☒ IPv4 CIDR manual input ☐ IPAM-allocated IPv4 CIDR block

IPv4 CIDR
10.0.0.0/24

IPv6 CIDR block [Info](#)
☒ No IPv6 CIDR block ☐ IPAM-allocated IPv6 CIDR block ☐ Amazon-provided IPv6 CIDR block

Cloud

Vpc ec2 configuration

▼ Network settings Info

VPC - required Info

vpc-0f9aa00a22a6f4acb (default) 172.31.0.0/16

Subnet Info

No preference

Q |

No preference

subnet-0b770c656edac684c VPC: vpc-0f9aa00a22a6f4acb Owner: 861839380438 Availability Zone: us-east-1a IP addresses available: 4091 CIDR: 172.31.32.0/20

subnet-05095bebb69fbd090 VPC: vpc-0f9aa00a22a6f4acb Owner: 861839380438 Availability Zone: us-east-1e IP addresses available: 4091 CIDR: 172.31.48.0/20

subnet-094df5c00c99c7f7c VPC: vpc-0f9aa00a22a6f4acb Owner: 861839380438 Availability Zone: us-east-1f

Select security groups

Compare security group rules

▼ Summary

Number of instances Info

1

Software Image (AMI)

Canonical, Ubuntu, 22.04 LTS, ...read more ami-0557a15b87f6559cf

Virtual server type (instance type)

t2.micro

Firewall (security group)

launch-wizard-18

Storage (volumes)

1 volume(s) - 8 GiB

Cancel Launch instance

EC2

Inbound security group rules successfully modified on security group (sg-07271a43eaa90d52f | launch-wizard-15)

Details

Security Groups (1/31) Info

Filter security groups

Name	Security group ID	Security group name	VPC ID	Description
-	sg-07271a43eaa90d52f	launch-wizard-15	vpc-0f9aa00a22a6f4acb	launch-wizard-15 crea...
-	sg-0fde660a1066bb041a	launch-wizard-16	vpc-0f9aa00a22a6f4acb	launch-wizard-16 crea...

Inbound rules (3)

Filter security group rules

Security group rule...	IP version	Type	Protocol	Port range	S
sgr-07be1c2e024862cc5	IPv4	SSH	TCP	22	0
sgr-0a7b9e034ac8f3fb6	IPv4	Custom TCP	TCP	9001	0
sgr-01322e20d7b63b...	IPv4	POP3S	TCP	995	4

© 2023, Amazon Web Services India Private Limited or its affiliates. Privacy Terms Cookie preferences

Cloud

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

Common security groups [Info](#)

Select security groups

launch-wizard-15 sg-07271a43eaa90d52f X
VPC: vpc-0f9aa00a22a6f4acb

 [Compare security group rules](#)

► **Advanced network configuration**

Get system log

[EC2](#) >
[Instances](#) >
[i-Oc72d6f00712ab1fb](#) >
[Get system log](#)

Get system log info

When you experience issues with your EC2 instance, reviewing system logs can help you pinpoint the cause.

System log

Review system log for instance i-Oc72d6f00712ab1fb as of Thu Feb 16 2023 12:38:44 GMT+0530 (India Standard Time)

Copy log

Download

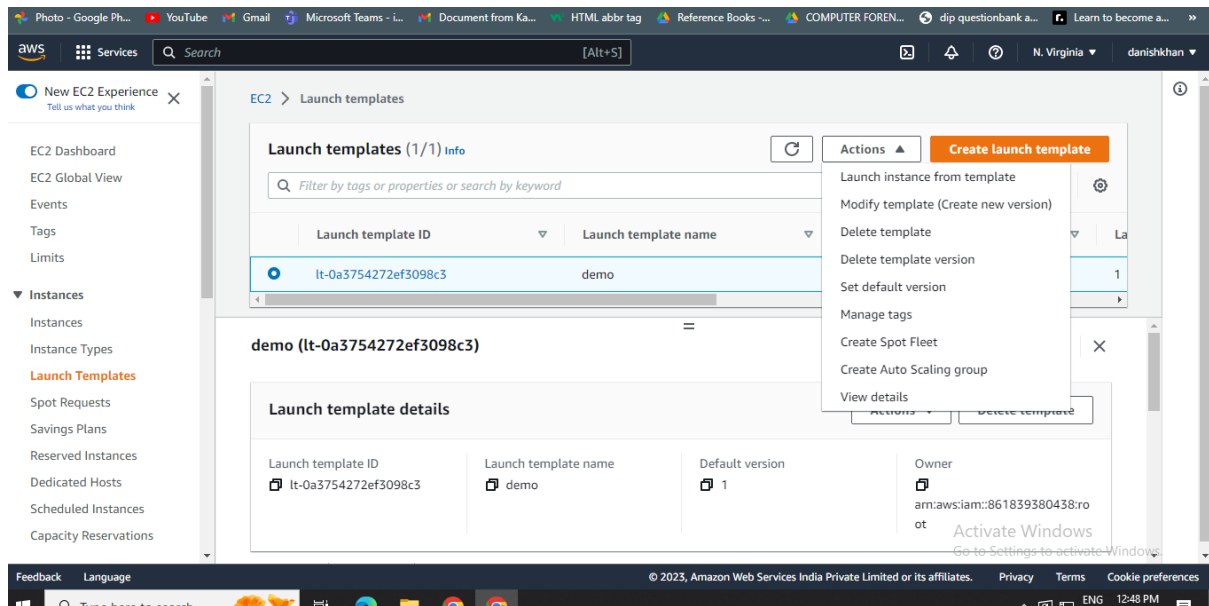
```

ci-info: +-----+
ci-info: | ssh-psa | 9a:21:97:6e:18:c7:cc:4:72:7a:d8:0d:a5:f9:3c:c0:eb:c2:14:5a:9e:6b:80:ea:66:74:d7:c7:56:5e:5a:79 | - | Ansible-ssh |
ci-info: +-----+

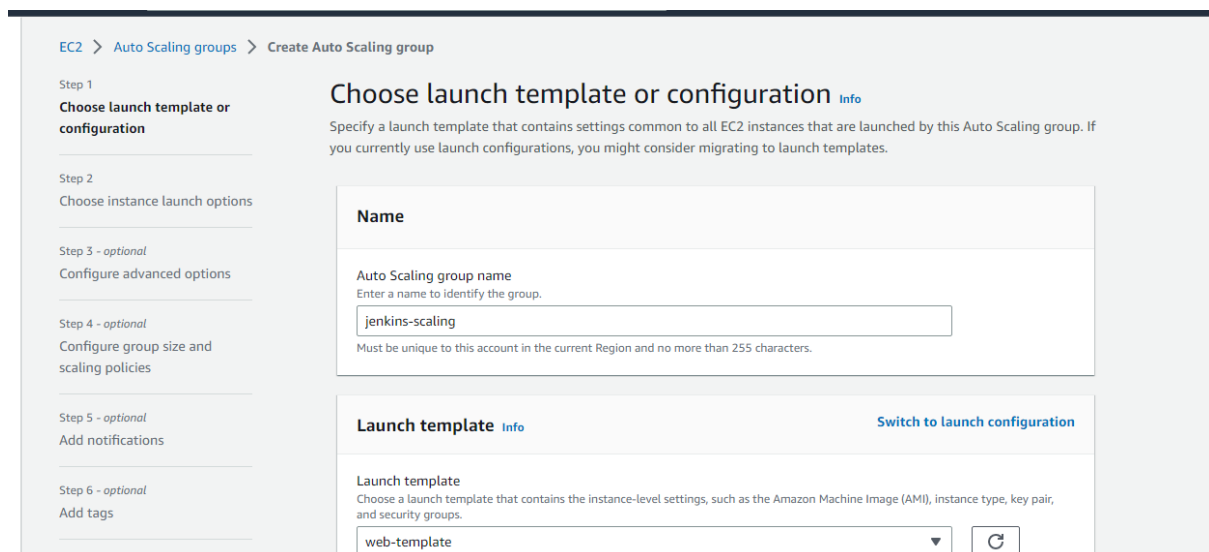
<14>Feb 16 07:00:43 cloud-init: #####
<14>Feb 16 07:00:43 cloud-init: ----BEGIN SSH HOST KEY FINGERPRINTS-----
<14>Feb 16 07:00:43 cloud-init: 1024 SHA256:6UpBjy52y4FGhmyNzwueuPNiZFFY95fDM5Kem4rUkv8 root@ip-172-31-95-134 (DSA)
<14>Feb 16 07:00:43 cloud-init: 256 SHA256:/2PY15zyQEDDUH3P2e4Rc6vIIa3GsQssZFkpkp0emlg root@ip-172-31-95-134 (ECDSA)
<14>Feb 16 07:00:43 cloud-init: 256 SHA256:yH3dzDZ3hP/OefbwlCnMeMa6yKuk3K4AqmJiMerljs0 root@ip-172-31-95-134 (ED25519)
<14>Feb 16 07:00:43 cloud-init: 3072 SHA256:v+kczzhc4/lkwjKJfAvXSHTW7mZyYRas6ZKs5xQPz0 root@ip-172-31-95-134 (RSA)
<14>Feb 16 07:00:43 cloud-init: ----END SSH HOST KEY FINGERPRINTS-----
<14>Feb 16 07:00:43 cloud-init: #####
----BEGIN SSH HOST KEY KEYS-----
ecdsa-sha2-nistp256 AAAAE2VjZHNhLXNoYTUAAAAIbnlzdG9yNTUAAAAIBnIzdG9yNTUAAABBB14rxgwh0eQFBMaaf9Z7YFvMrIneM1zfah+XoTgW31q+k7jAczyrRAjue4/PKSB6m8dAggO4Y
ssh-ed25519 AAAAC3NzaC1lZDI1NTE5AAAAIMzveANdnxFzDYHHCyROFBilM0/kW0GER8vm4cacfd root@ip-172-31-95-134

```

Cloud



EC2 AutoScaling



As a devops professional, how much do you know about the cloud : EC2, ECS, Lambda, ECR,ECS

Storage : S3,EBS,RDS,

Authentication : IAM, VPC, KMS

Cloud

*IAM(identity access management)

IAM stands for "Identity and Access Management" and it is a service provided by Amazon Web Services (AWS) that allows you to manage user access to AWS resources.

IAM enables you to create and manage AWS users and groups, and assign permissions to them to access specific resources and services within your AWS account. This allows you to control who has access to your AWS resources and what actions they can perform.

Some common use cases for IAM on AWS include creating new users with specific permissions, setting up roles with granular access controls, and configuring multi-factor authentication (MFA) for added security.

In summary, IAM is a critical service that helps you manage access to your AWS resources in a secure and controlled manner.

S3(simple storage service)

Cloud

```
MINGW64:/c/Users/qcs
aws help
aws <command> help
aws <command> <subcommand> help

aws: error: the following arguments are required: command

admin@DESKTOP-B6GA08B MINGW64 ~
$ aws configure
AWS Access Key ID [None]: AKIA4RKNBJ7LI55ZAMOX
AWS Secret Access Key [None]: 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
Default region name [None]:
Default output format [None]:

admin@DESKTOP-B6GA08B MINGW64 ~
$ aws s3 ls
2023-02-21 20:16:38 aws-node-http-api-projec-serverlessdeploymentbuck-11idodqgwh1sr
2023-02-25 17:55:24 danish-resume
2023-02-20 19:59:29 first-serverless-hellp-a-serverlessdeploymentbuck-1egu34xuc3f05

admin@DESKTOP-B6GA08B MINGW64 ~
$
```

Buckets (3) [Info](#)

Copy ARN

Empty

Delete

Create bucket

Find buckets by name

< 1 >

Name	AWS Region	Access	Creation d
<div><div></div>aws-node-http-api-projec-serverlessdeploymentbuck-11idodqgwh1sr</div>	US East (N. Virginia) us-east-1	Objects can be public	February 2
<div><div></div>danish-resume</div>	US East (N. Virginia) us-east-1	Bucket and objects not public	February 2
<div><div></div>first-serverless-hellp-a-serverlessdeploymentbuck-1egu34xuc3f05</div>	US East (Ohio) us-east-2	Objects can be public	February 2

Activate Windows

```
admin@DESKTOP-B6GA08B MINGW64 ~
$ aws s3 ls
2023-02-21 20:16:38 aws-node-http-api-projec-serverlessdeploymentbuck-11idodqgwh1sr
2023-02-25 17:55:24 danish-resume
2023-02-20 19:59:29 first-serverless-hellp-a-serverlessdeploymentbuck-1egu34xuc3f05

admin@DESKTOP-B6GA08B MINGW64 ~
$ aws s3 ls s3://danish-resume
2023-02-25 17:56:10      196413 DanishResumes (2).pdf

admin@DESKTOP-B6GA08B MINGW64 ~
$
```


Cloud

```
download: s3://danish-resume/DanishResumes (2).pdf to .\DanishResum
admin@DESKTOP-B6GA08B MINGW64 ~/Desktop
$ aws s3 cp s3://danish-resume ./ --recursive
download: s3://danish-resume/DanishResumes (2).pdf to .\DanishResum
admin@DESKTOP-B6GA08B MINGW64 ~/Desktop
$ aws s3 cp s3://danish-resume ./c --recursive
download: s3://danish-resume/DanishResumes (2).pdf to c\DanishResum
admin@DESKTOP-B6GA08B MINGW64 ~/Desktop
$
```

```
admin@DESKTOP-B6GA08B MINGW64 ~/Desktop/websites
$ aws s3 rb s3://danish-resume --force
delete: s3://danish-resume/DanishResumes (2).pdf
delete: s3://danish-resume/Group.jpg
delete: s3://danish-resume/style.css
delete: s3://danish-resume/danish.jfif
delete: s3://danish-resume/myworld.html
remove_bucket: danish-resume
admin@DESKTOP-B6GA08B MINGW64 ~/Desktop/websites
$ |
```

RDS

The screenshot shows the AWS Management Console interface for creating a new RDS database. At the top, there's a navigation bar with the AWS logo, 'Services', a search bar, and a '[ALT+P]' shortcut. Below this is a blue banner with a message: 'We listened to your feedback! Now, create a database with a single click using our pre-built configurations! Or choose your own configurations.' The main content area is titled 'RDS > Create database' and 'Create database'. It features a section 'Choose a database creation method' with two options: 'Standard create' (selected with a radio button) and 'Easy create'. The 'Standard create' option includes a description: 'You set all of the configuration options, including ones for availability, security, backups, and maintenance.' The 'Easy create' option includes: 'Use recommended best-practice configurations. Some configuration options can be changed after the database is created.' Below this is the 'Engine options' section, which includes 'Engine type' with three radio button options: 'Aurora (MySQL Compatible)' (selected), 'Aurora (PostgreSQL Compatible)', and 'MySQL'. At the bottom of the console, there's a dark blue footer with 'Feedback', 'Language', and a copyright notice: '© 2023, Amazon Web Services India Private Limited'.

Cloud

Lambda
