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What is AWS?



- AWS stands for Amazon Web Services.
- Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted <u>Cloud Platform</u>.





#### What is AWS?



- AWS provides on-demand delivery of technology services via internet.
- It offers over 200 fully featured services.



## Introduction to AWS History of AWS

AWS launched its first service in 2004. Over the years, many new services were put into service. But in this diagram, the real breaking point started in 2006, when AWS allowed developer begin to access to Amazon's own back-end technology and own infrastructure.

2000 came into picture

**2004** The first Service SQS was launched.

**2006** AWS Launches S3, and EC2-Access allow

2007 Simple DB

2008 Elastic IPs, EBS, Cloud Front,

**2009** VPC, RDS, Route 53

Cloud Formation 2010

DynamoDB, Glacier, Redshift 2012

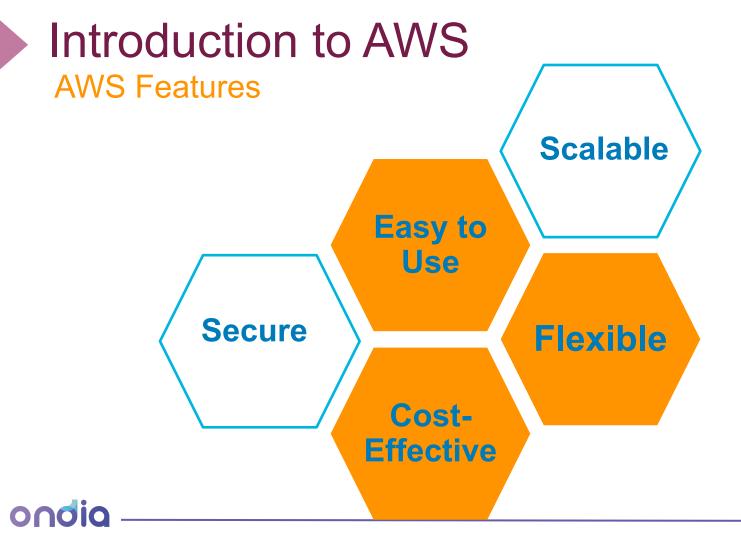
CloudTrail, Kinesis, Lambda 2013

Aurora **2014** 

EC2 Container Service 2016

Elastic Kubernetes Service 2018







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#### **AWS Market Share**

**AWS** 31%

Azure 20%,

Google Cloud 12%,

Alibaba Cloud 4%

Oracle 3%.

www.statista.com





## Introduction to AWS Pros

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- Many featured services and largest global infrastructure.
- Most comprehensive and broadly adopted provider.
- Pay-as-you-go.
- High availability and scalability.



## Introduction to AWS AWS Cons



- Complex service functionalities can be a challenge for beginners.
- Billing can be confusing.
- Some services can be costly in comparison to others.





# What does AWS offer?

#### What does AWS offer?

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#### **AWS Services**









www.e-commerce...













Web Server work in EC2 machine

(nginx-apache httpd)

- **Auto Scaling**
- **Load Balancing**

- Register domain name of the website
- -Publishing on Internet
- -Routing policies

- Best seller images,
- Inventory List etc.
- Data Log

- -Customer info
- -System Backups

















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Introduction

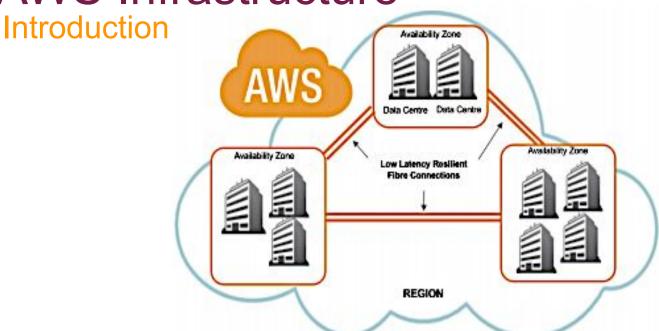


Availability 120 Zones

**Data Centers** 







- Multiple Availability Zones in AWS Region
- Availability Zones consist of one or more discrete Data Centers



## AWS Infrastructure AWS Regions

38 Geographic Regions



N. Virginia is the region with the most service-support. In the other regions, not all services of AWS are in progress.





New Regions coming soon



#### **AWS Availability Zones**









- AWS Availability Zones
- An Availability Zone is a facility where the data centers are located.
- There are currently 120 Availability Zones (as of Sep 2025).
- All AZ's in an AWS region are interconnected with metro fiber.
- All traffic between AZ's is encrypted.
- AZ's are physically separated by a meaningful distance, many kilometers, from any other AZ, although all are within 100 km (60 miles of each other).



#### **AWS Data Centers**

- The data center infrastructure consists of physical or hardware-based tools and components.
- AWS data centers are secure by design.



**Northern Virginia Data Center** 





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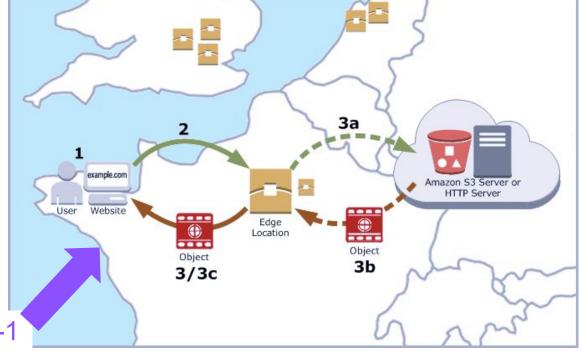
#### **Edge Locations**

 An edge location is where end-users access services located at AWS and used for caching content.

• 700+ Edge Locations

**First Query** : 1-2-3a-3b-3c-1

Second Query: 1-2-3-1





### **AWS Free Tier**

### AWS Free Tier July 15th, 2025



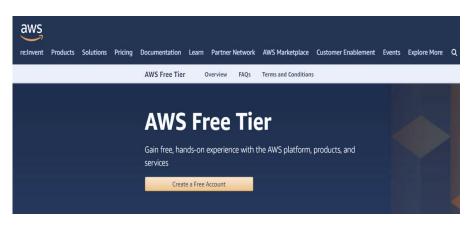
**After** 





## AWS Free Tier What is AWS Free Tier?





- The AWS free tier is a account type that lets you gain free, hands-on experience with AWS products and services.
- The AWS free tier provides customers the ability to explore and try out AWS services free of charge up to specified limits for each service.



## AWS Free Tier Free Tier Offer Types



The Free Tier (Legacy) is comprised of three different types of offerings;

- Services with a 12-month free tier allow customers to use the product for free up to specified limits for one year from the date the account was created.
- Services with an always free offer allow customers to use the product for free up to specified limits as long as they are an aws customer.
- Services with a short term trial are free to use for a specified period of time or up to a one-time limit depending on the service selected.





## AWS Free Tier Billing Policy

- You are recommended to set a billing alarm to stay within the limits.
- If your application use exceeds the free tier limits, you simply pay standard, pay-as-you-go service rates.
- AWS Free Tier is applied to your monthly usage. It will expire on the 1st day of each month and does not accumulate.





#### AWS Free Tier

#### **New Free Tier**





#### Free (6 months)

Learn, experiment, and build prototypes

- ✓ Receive up to \$200 in credits
- ✓ Includes free usage of select services
- X Workloads scale beyond credit thresholds
- X Access to all AWS services and features
- After the 6 month free period or when all credits are used, you can choose to upgrade to a paid plan.
   Otherwise, your account closes automatically.

Choose free plan



#### Paid

Develop production-ready workloads

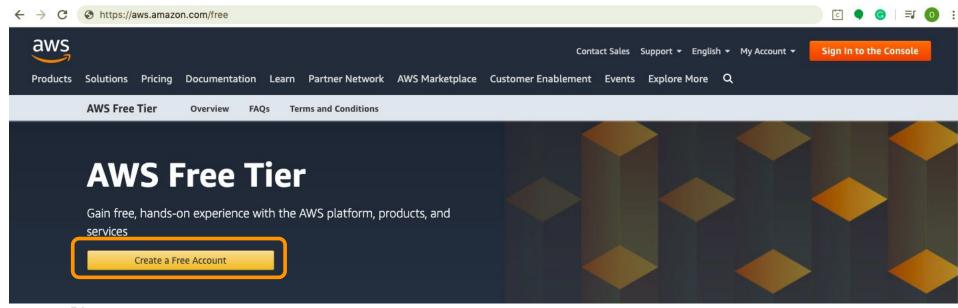
- Receive up to \$200 in credits
- Includes free usage of select services
- ✓ Workloads scale beyond credit thresholds
- Access to all AWS services and features
- After all of your credits are used, you are charged using pay-as-you-go pricing.

Choose paid plan



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- First, Enter the browser: <a href="https://aws.amazon.com/free">https://aws.amazon.com/free</a>
- Then click, "Create Free Account"

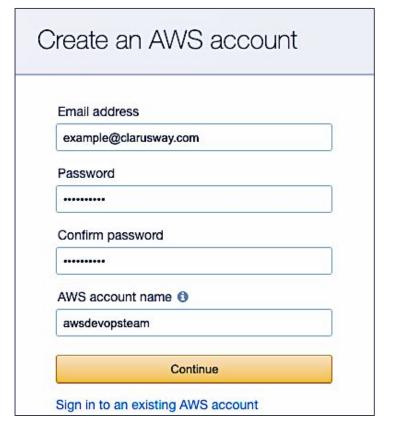






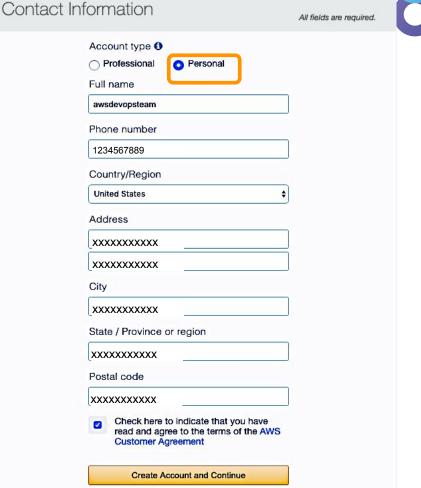


 On clicking on the "Create Free Account" button, the following screen appears that requires some fields to be filled by the user including email address, password and account name.





 Select "Personal" as an account Type and then fill your contact information.





#### Payment Information

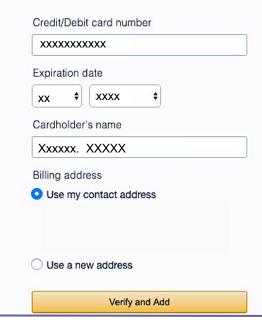
5

Fill your payment information.

We use your payment information to verify your identity and only for usage in excess of the AWS Free Tier Limits. We will not charge you for usage below the AWS Free Tier Limits. For more information, see the frequently asked questions.



When you submit your payment information, we will charge \$1 USD/EUR to your credit card as a verification charge to ensure your card is valid. The amount may show as pending in your credit card statement for 3-5 days until the verification is completed, at which time the charge will be removed. You may be redirected to your bank website to authorize the verification charge.





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- Confirm your identity by entering your phone number and code displayed in the captcha.
- Choose "Contact me ".
- If you chose to verify your account by SMS, choose "Send SMS" instead, like in the picture.
- Then enter the PIN you receive by text message or voice call, and then choose "Continue".

#### Confirm your identity Before you can use your AWS account, you must verify your phone number. When you continue, the AWS automated system will contact you with a verification code. Country or region code United States (+1) Cell Phone Number (123) 4567899 Security check C 6nncap

Send SMS



After verification, select the support Plan. Choose the "Basic Plan" which is free.











## THANKS! >

### **Any questions?**

You can find me at:

@Guile - Instructor



