Series => Hardware / Functionality

Cost Estimation

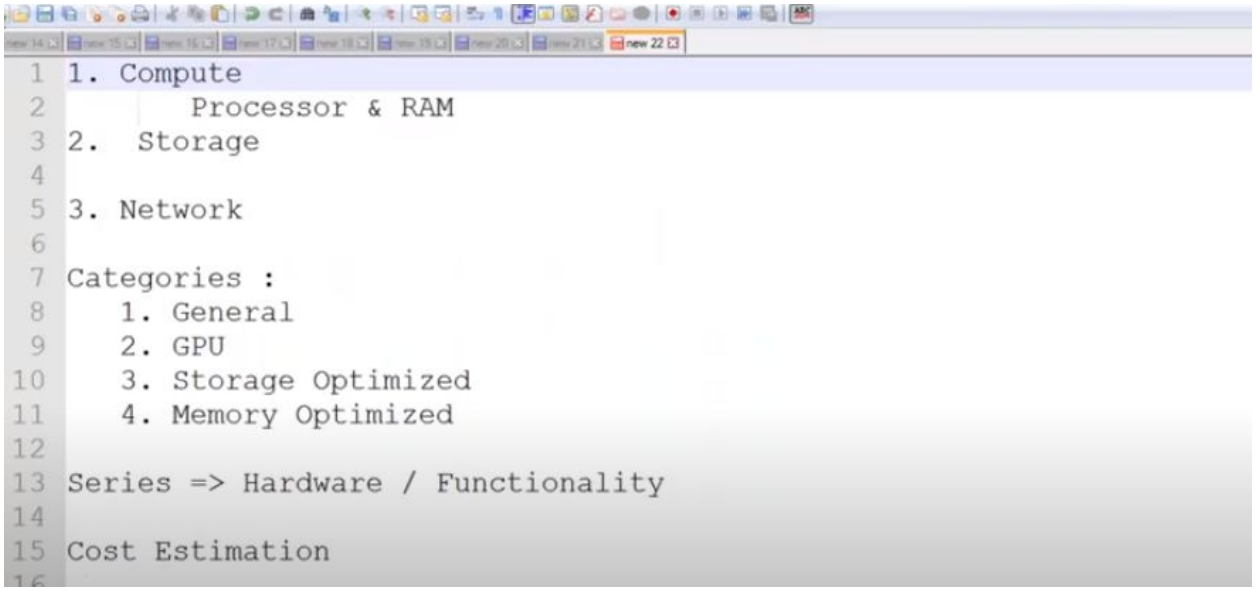
Varying Compute Needs should be addressed

Fault Tolerant

High Availability

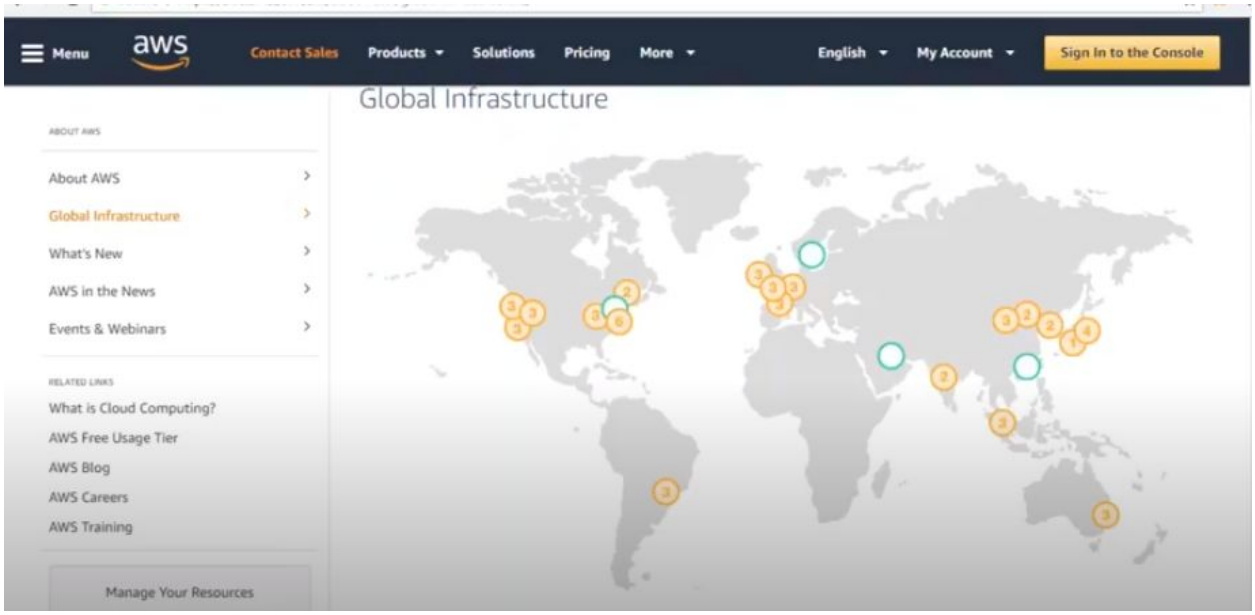
Hybrid Models

Performance



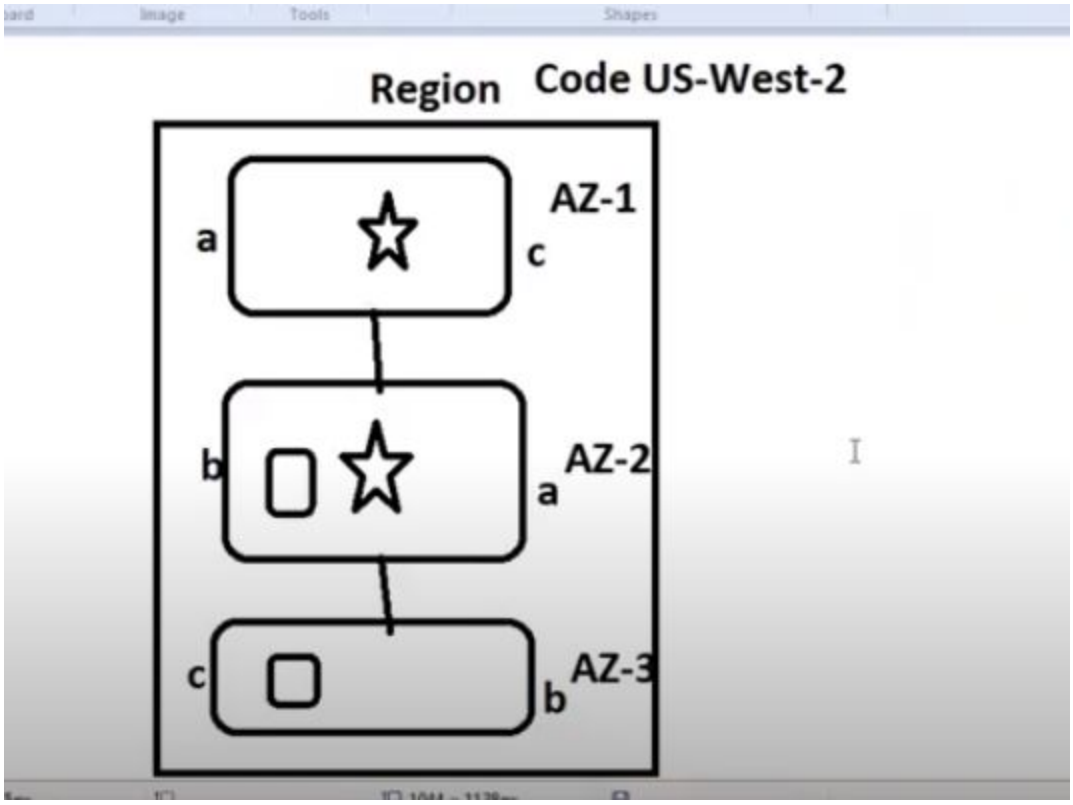
```
1. Compute
       Processor & RAM
2.  Storage

3. Network

Categories :
   1. General
   2. GPU
   3. Storage Optimized
   4. Memory Optimized

Series => Hardware / Functionality

Cost Estimation
```

Global Infrastructure https://aws.amazon.com/about-aws/global-infrastructure/




| | | | |
|---|---|---|---|
| **22 Launched Regions**<br>Each with multiple Availability Zones (AZ's) | **5 Announced Regions** | **70 Availability Zones** | **1 Local Zone**<br>For ultralow latency applications |
| **2x More Regions**<br>With multiple AZ's than the next largest cloud provider | **245 Countries and Territories Served** | **97 Direct Connect Locations** | **216 Points of Presence**<br>205 Edge Locations and 11 Regional Edge Caches |

Region is geographical area
Availability Zone is Data centers




## Benefits

### Security

Security at AWS starts with our core infrastructure. Custom-built for the cloud and designed to meet the most stringent security requirements in the world, our infrastructure is monitored 24/7 to help ensure the confidentiality, integrity, and availability of your data. All data flowing across the AWS global network that interconnects our datacenters and Regions is automatically encrypted at the physical layer before it leaves our secured facilities. You can build on the most secure global infrastructure, knowing you always control your data, including the ability to encrypt it, move it, and manage retention at any time.

### Availability

AWS delivers the highest network availability of any cloud provider, with 7x fewer down time hours than the next largest cloud provider.* Each region is fully isolated and comprised of multiple AZ's, which are fully isolated partitions of our infrastructure. To better isolate any issues and achieve high availability, you can partition applications across multiple AZ's in the same region. AZ's are designed for physical redundancy and provide resilience, enabling uninterrupted performance, even in the event of power outages, Internet downtime, floods, and other natural disasters.

### Performance

The AWS Global Infrastructure is built for performance. AWS Regions offer low latency, low packet loss, and high overall network quality. This is achieved with a fully redundant 100 GbE fiber network backbone, often providing many terabits of capacity between Regions. AWS Local Zones and AWS Wavelength, with our telco providers, provide performance for applications that require single-digit millisecond latencies by delivering AWS infrastructure and services closer to end-users and 5G connected devices. Whatever your application needs, you can quickly spin up resources as you need them, deploying hundreds or even thousands of servers in minutes.

### Global Footprint

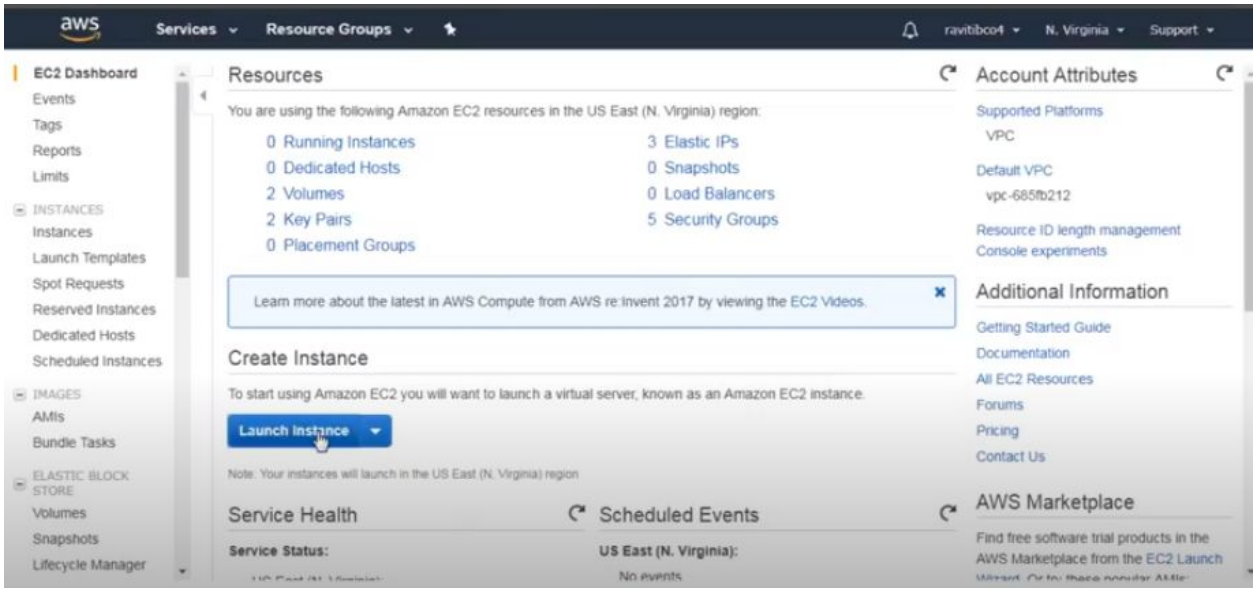
AWS has the largest global infrastructure footprint of any provider, and this footprint is constantly increasing at a

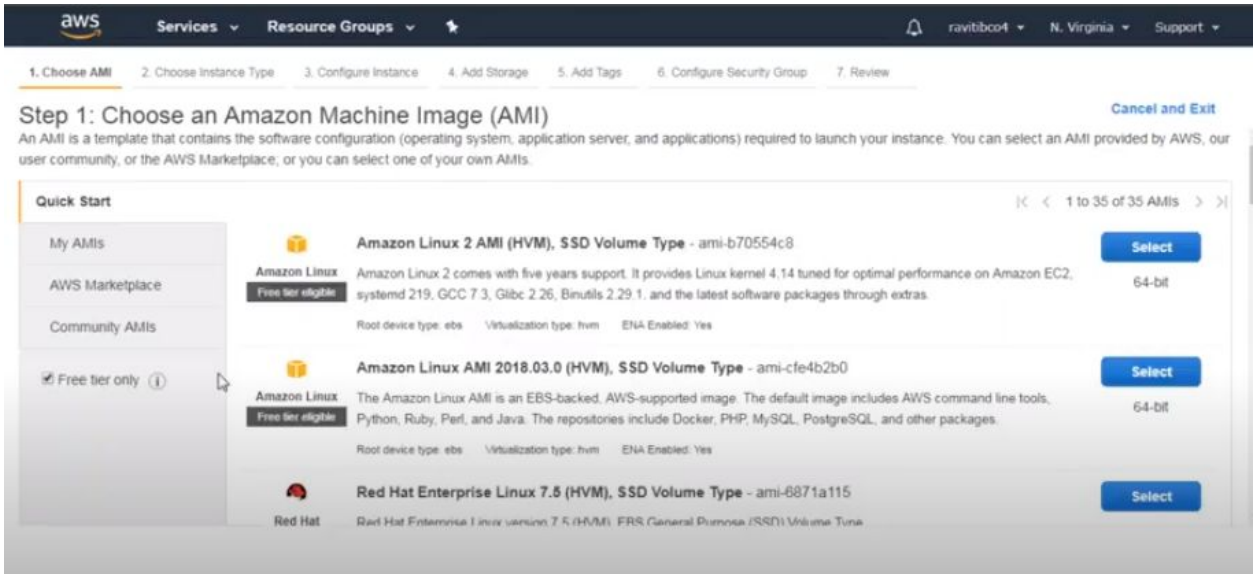
### Scalability

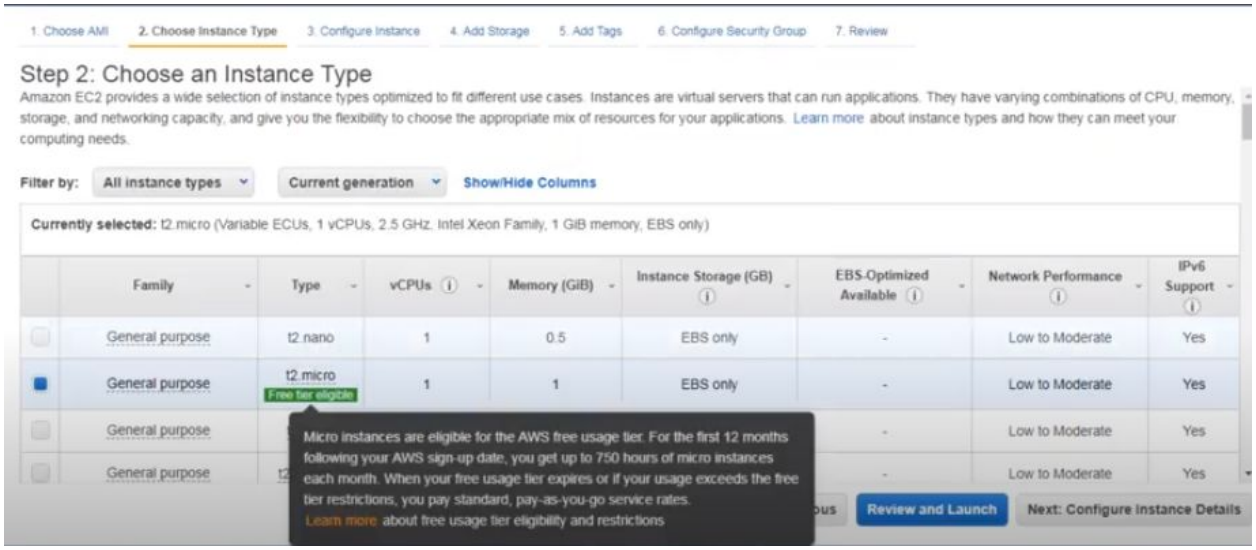
The AWS Global Infrastructure enables companies to be extremely flexible and take advantage of the conceptually

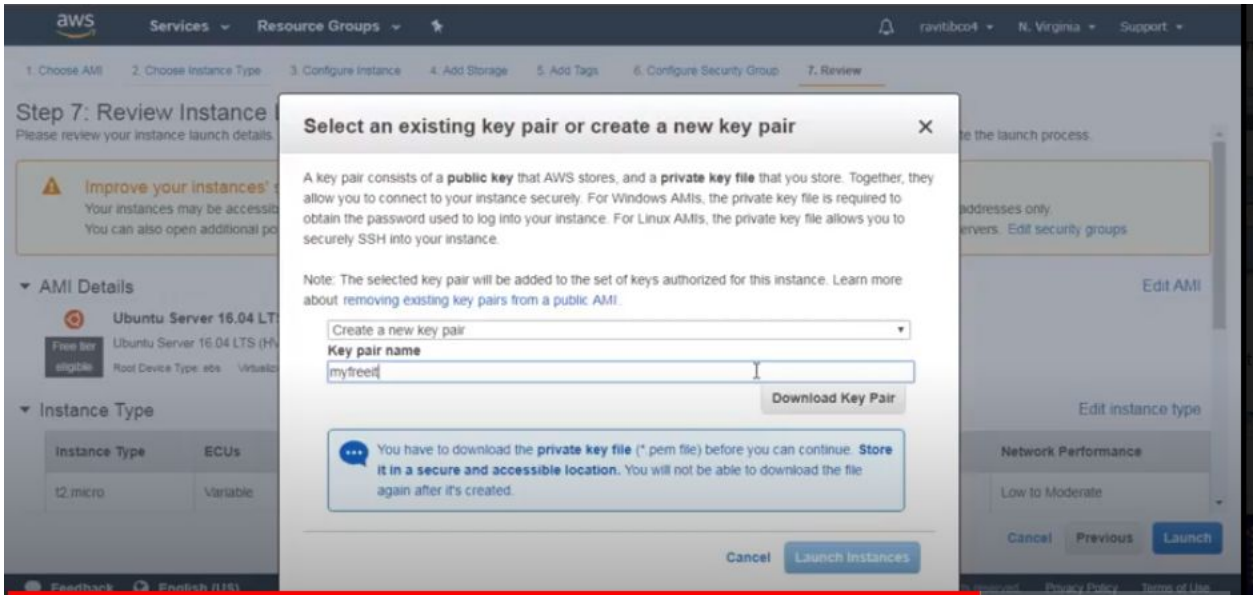
### Flexibility

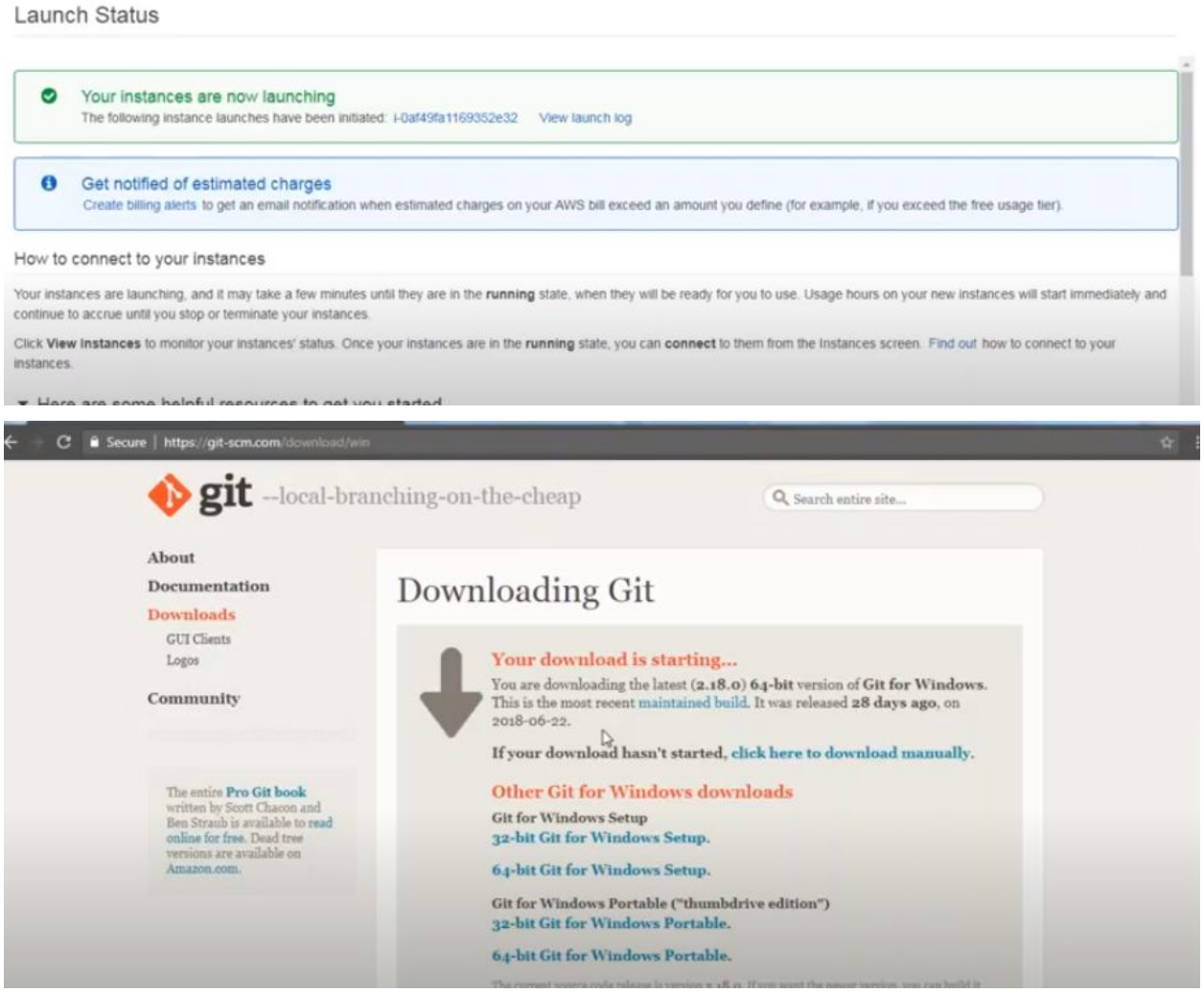
The AWS Global Infrastructure gives you the flexibility of choosing how and where you want to run your workloads,


aws
Services
Resource Groups
ravitibco4
N. Virginia
Support
EC2 Dashboard
Events
Tags
Reports
Limits
INSTANCES
Instances
Launch Templates
Spot Requests
Reserved Instances
Dedicated Hosts
Scheduled Instances
IMAGES
AMIs
Bundle Tasks
ELASTIC BLOCK STORE
Volumes
Snapshots
Lifecycle Manager
Resources
You are using the following Amazon EC2 resources in the US East (N. Virginia) region:
0 Running Instances
0 Dedicated Hosts
2 Volumes
2 Key Pairs
0 Placement Groups
3 Elastic IPs
0 Snapshots
0 Load Balancers
5 Security Groups
Learn more about the latest in AWS Compute from AWS re:Invent 2017 by viewing the EC2 Videos.
Create Instance
To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.
Launch Instance
Note: Your instances will launch in the US East (N. Virginia) region
Service Health
Service Status:
Scheduled Events
US East (N. Virginia):
No events
Account Attributes
Supported Platforms
VPC
Default VPC
vpc-685fb212
Resource ID length management
Console experiments
Additional Information
Getting Started Guide
Documentation
All EC2 Resources
Forums
Pricing
Contact Us
AWS Marketplace
Find free software trial products in the AWS Marketplace from the EC2 Launch

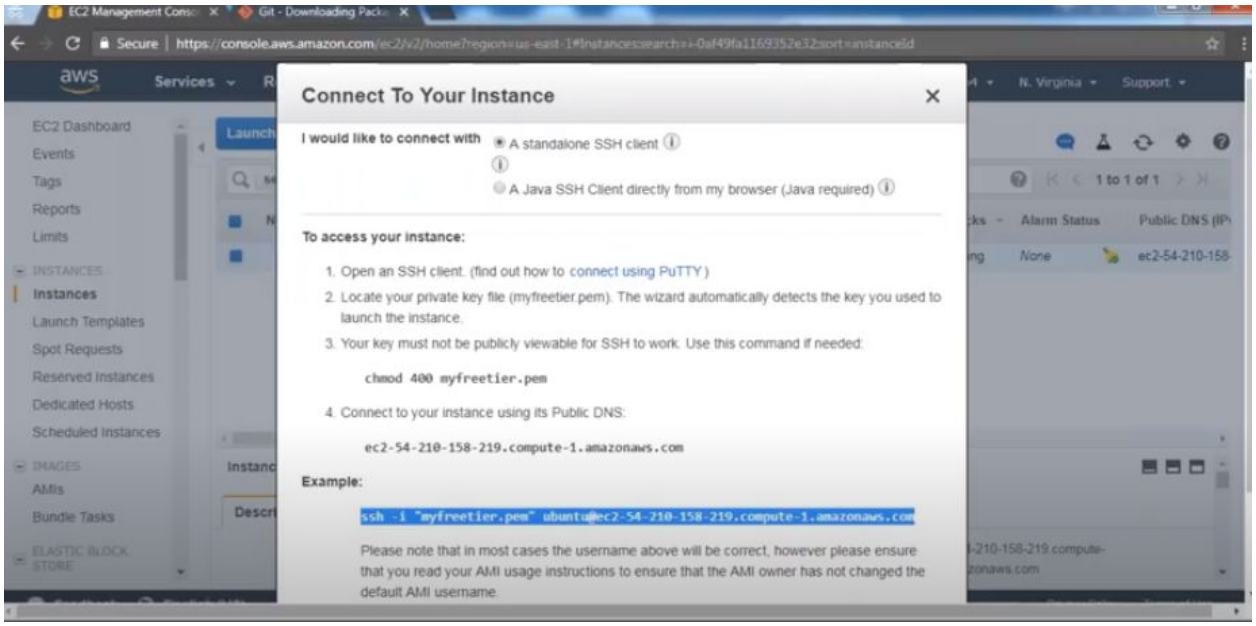

aws
Services
Resource Groups
ravitibco4
N. Virginia
Support
1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 1: Choose an Amazon Machine Image (AMI)
Cancel and Exit
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. You can select an AMI provided by AWS, our user community, or the AWS Marketplace; or you can select one of your own AMIs.
Quick Start
1 to 35 of 35 AMIs
My AMIs
AWS Marketplace
Community AMIs
Free tier only
Amazon Linux 2 AMI (HVM), SSD Volume Type - ami-b70554c8
Amazon Linux
Free tier eligible
Amazon Linux 2 comes with five years support. It provides Linux kernel 4.14 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras.
Root device type: ebs
Virtualization type: hvm
ENA Enabled: Yes
Select
64-bit
Amazon Linux AMI 2018.03.0 (HVM), SSD Volume Type - ami-cfe4b2b0
Amazon Linux
Free tier eligible
The Amazon Linux AMI is an EBS-backed, AWS-supported image. The default image includes AWS command line tools, Python, Ruby, Perl, and Java. The repositories include Docker, PHP, MySQL, PostgreSQL, and other packages.
Root device type: ebs
Virtualization type: hvm
ENA Enabled: Yes
Select
64-bit
Red Hat Enterprise Linux 7.5 (HVM), SSD Volume Type - ami-6871a115
Red Hat
Select


1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 2: Choose an Instance Type
Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. Learn more about instance types and how they can meet your computing needs.
Filter by:
All instance types
Current generation
Show/Hide Columns
Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)
Family
Type
vCPUs
Memory (GiB)
Instance Storage (GB)
EBS-Optimized Available
Network Performance
IPv6 Support
General purpose
t2.nano
1
0.5
EBS only
Low to Moderate
Yes
General purpose
t2.micro
Free tier eligible
1
1
EBS only
Low to Moderate
Yes
General purpose
Low to Moderate
Yes
General purpose
Low to Moderate
Yes
Micro instances are eligible for the AWS free usage tier. For the first 12 months following your AWS sign-up date, you get up to 750 hours of micro instances each month. When your free usage tier expires or if your usage exceeds the free tier restrictions, you pay standard, pay-as-you-go service rates.
Learn more about free usage tier eligibility and restrictions
Review and Launch
Next: Configure Instance Details

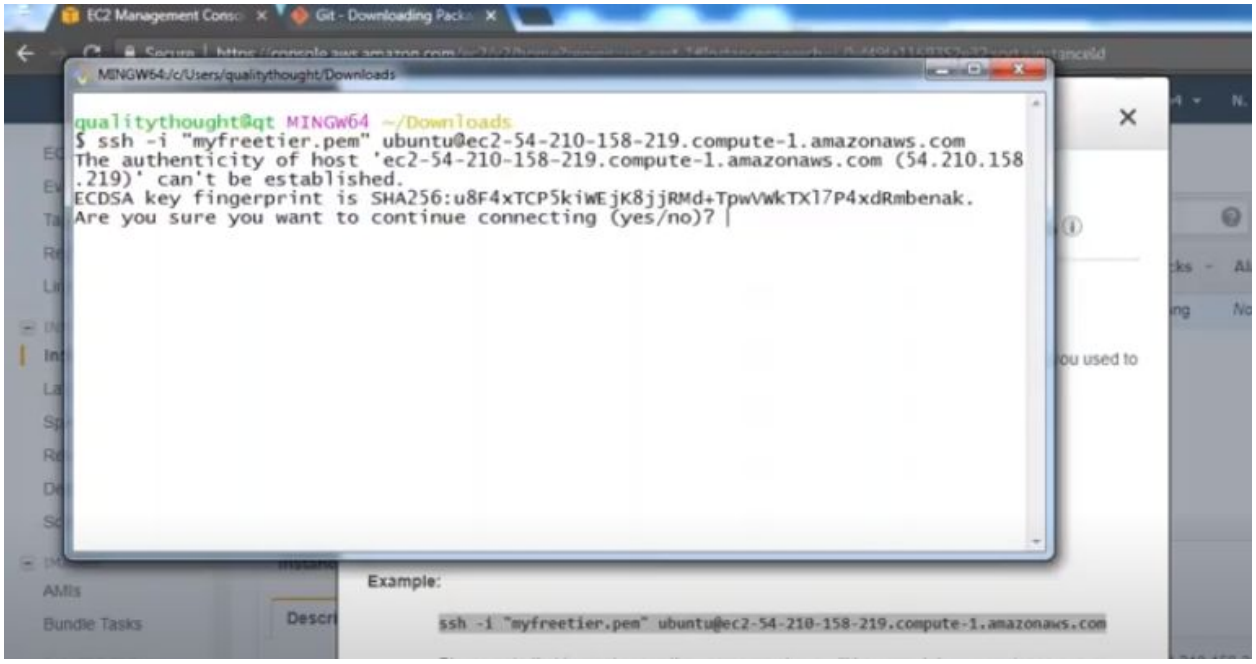

aws
Services
Resource Groups
ravitibco4
N. Virginia
Support
1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 7: Review Instance
Please review your instance launch details.
Improve your instances'
Your instances may be accessib
You can also open additional po
AMI Details
Ubuntu Server 16.04 LT
Free tier eligible
Ubuntu Server 16.04 LTS (H
Root Device Type: ebs
Edit AMI
Instance Type
Instance Type
ECUs
t2.micro
Variable
Edit instance type
Network Performance
Low to Moderate
Cancel
Previous
Launch
Select an existing key pair or create a new key pair
A key pair consists of a public key that AWS stores, and a private key file that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance.
Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about removing existing key pairs from a public AMI.
Create a new key pair
Key pair name
myfreeit
Download Key Pair
You have to download the private key file (*.pem file) before you can continue. Store it in a secure and accessible location. You will not be able to download the file again after it's created.
Cancel
Launch Instances




Ssh software download and install




Connect using ssh software




Enter yes and login success

Region - geographical location with multiple datacenter which have far away from each other

Az - each datacenter in a region most of region has 3 or more az.

Edge location is an additional infra from amazon to increase the connectivity or to connect to region faster it's kind of cdn network like youtube

```
750 hours of vm (1GB, 1 core processor)

unit = 1hour

vm => running

hard disk (30GB)
```

https://aws.amazon.com/pricing/