Vagrant with aws

Begin by logging into your aws educate account:

- What regions can I use with a Classroom Account?
- Are Service Linked Roles supported?
- I can't start any resources. What happened?
- Can I create users within my Classroom Account for others to access?
- Can I create my own IAM policy within Starter Account or Classroom?
- How can I use IAM roles within AWS services?

You can click on the AWS console button to access AWS services.
If you click on account details, you will find some important information that vagrant will need.
Create a directory with a Vagrantfile
joe@CIT-SCC113-1143:~/aws2019/ubuntu$
Install a dummy box:

```
vagrant box add dummy https://github.com/mitchellh/vagrant-aws/raw/master/dummy.box
```

This information you should have got from account details:
Vagrant.configure("2") do |config|
  config.vm.box = "dummy"
  config.vm.provider :aws do |aws, override|
    aws.access_key_id = "ASIA2A5VNEIDIQIM5WUI2"
    aws.secret_access_key = "1zUCLzJCFek5IzgDoFZSL2cVW1vsa7jA2R3JZFq"
    aws.session_token = "FQoGZnIVyXdzEMn///wEaDNTJ1A+zC2biauE1BLG02Ubl1mLyuFfuJrp+CQp7yD0rohEyUAJUJwg/72ydpHhgraJrCmNBmO++6kiEqDdYUGUOVLaj4mQHcvKKJ36o0+hjyWY9A4hxdcK9meTIRfj09jFKBmMEdtLRKh0ggbixqhCSR6CCQURs7Ya1WB8az+Nh6isYowWtAC0mcpX2zhnWaVGLSggBfAQycqI3kela3/0oii"
    aws.keypair_name = "testkeys"
    aws.ami = "ami-07d0cf3af28718ef8"
    security_groups = "default"
    override.ssh.username = "ubuntu"
    aws.instance_type="t2.micro"
    override.ssh.private_key_path = "./testkeys.pem"
  end
end
Generate a new keypair (our vagrant file will use this to communicate with the machine)
Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) region:

- 0 Running Instances
- 0 Dedicated Hosts
- 0 Volumes
- 1 Key Pairs
- 0 Placement Groups
- 0 Elastic IPs
- 0 Snapshots
- 1 Security Groups

Learn more about the latest in AWS Compute from AWS re:Invent by viewing the

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:

US East (N. Virginia):
No events

Migrate a Machine

Use CloudEndure Migration to automate large-scale migration and cloud-based infrastructure.

Get started with CloudEndure

Scheduled Events

US East (N. Virginia):
No events
After you create it, you will be prompted to download. Make sure you download to the same directory as your vagrant file (or copy it there if you need to).
How did I get this AMI number?
Vagrant.configure("2") do |config|
  config.vm.box = "dummy"

  config.vm.provider :aws do |aws, override|
    aws.access_key_id = "ASIA2A5VNEDIQIM5WUI2"
    aws.secret_access_key = "1zUCLzJCehek5IzgDoFZSL2cVWlvsajA2R3JZFq"
    aws.session_token = "FQoGZiVYXdzMn///w/eADNTJ1A+ZC/bIauE1BLLG02UbL1mLyuFBeJrP+CQp7yD0rohEyyUAUJjw/72ydphhraJ9rcmNboO++6kiEqDdYugUov1aJ4mQHcvKKJ36o0+hjywyA4hxKcK9meTIRfjO9jFKBmMEdtLRKh0ggbixqhCSR6CcQurs7Ya1WB8az+Na6isYowWtAC0mcpX2znhWaVGLSggBfAqycqI3kela3/Ooii"
    aws.keypair_name = "testkeys"

    aws.ami = "ami-07d0cf3af28718ef8"
    security_groups = "default"
    override.ssh.username = "ubuntu"
    aws.instance_type="t2.micro"
    override.ssh.private_key_path = ".testkeys.pem"
  end
end
Browse to instance you are interested in. Should see AMI number there.
Probably need to create a default security group to allow ssh in (or at least name the one that was created)
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Launch Instance

Note: Your instances will launch in the US East (N. Virginia) region
Select a security group above
Create Security Group
Add ssh if not seen.
### Security Groups

<table>
<thead>
<tr>
<th>Type</th>
<th>Protocol</th>
<th>Port Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>All traffic</td>
<td>All</td>
<td>All</td>
</tr>
<tr>
<td>SSH</td>
<td>TCP</td>
<td>22</td>
</tr>
<tr>
<td>SSH</td>
<td>TCP</td>
<td>22</td>
</tr>
</tbody>
</table>

Testkeys.pem

https://console.aws.amazon.com/
joe@CIT-SCC113-1143:~/aws2019/ubuntu$ vagrant plugin install vagrant
Installing the 'vagrant-aws' plugin. This can take a few minutes...
joe@CIT-SCC113-1143:~/aws2019/ubuntu$ vagrant up --provider aws
joe@CIT-SCC113-1143:$ vagrant up --provider aws
Bringing machine 'default' up with 'aws' provider...

--- default: Warning! The AWS provider doesn't support any of the Va
--- default: high-level network configurations (`config.vm.network`)
--- default: will be silently ignored.
--- default: Launching an instance with the following settings...
--- default:  -- Type: t2.micro
--- default:  -- AMI: ami-07d0cf3af28718ef8
--- default:  -- Region: us-east-1
--- default:  -- Keypair: testkeys
--- default:  -- Block Device Mapping: []
--- default:  -- Terminate On Shutdown: false
--- default:  -- Monitoring: false
--- default:  -- EBS optimized: false
--- default:  -- Source Destination check:
--- default:  -- Assigning a public IP address in a VPC: false
--- default:  -- VPC tenancy specification: default
--- default: Waiting for instance to become "ready"...
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.

Migrate a Machine

Use CloudEndure Migrate to automate large-scale migration and cloud-based infrastructure optimization.

Get started with CloudEndure Migrate.

Service Health

Scheduled Events
joe@CIT-SCC113-1143:~/aws2019/ubuntu$ vagrant up --provider aws
Bringing machine 'default' up with 'aws' provider...
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  ==> default:   -- Source Destination check:
  ==> default:   -- Assigning a public IP address in a VPC: false
  ==> default:   -- VPC tenancy specification: default
  ==> default: Waiting for instance to become "ready"
  ==> default: Waiting for SSH to become available...
  ==> default: Machine is booted and ready for use!
  ==> default: Rsyncing folder: /net/144.38.192.85/mnt/localdisks/home
joe@CIT-SCC113-1143:~/aws2019/ubuntu$ vagrant ssh
```bash
# default: -- VPC tenancy specification: default
# default: Waiting for instance to become "ready"
# default: Waiting for SSH to become available
# default: Machine is booted and ready for use!
# default: Rsyncing folder: /net/144.38.192.85/mnt/localdisks/home
joe@CIT-SCC113-1143:~/aws2019/ubuntu$ vagrant ssh
Welcome to Ubuntu 18.04.2 LTS (GNU/Linux 4.15.0-1044-aws x86_64)

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

System information as of Wed Sep 18 01:01:09 UTC 2019

System load: 0.85          Processes: 91
Usage of /: 13.7% of 7.69GB Users logged in: 0
Memory usage: 15%          IP address for eth0: 172.31.81.161
Swap usage: 0%

0 packages can be updated.
0 updates are security updates.

ubuntu@ip-172-31-81-161:~$ echo "here on ubuntu on aws"
here on ubuntu on aws
ubuntu@ip-172-31-81-161:~$  ```
joe@CIT-SCC113-1143:~/.aws2019/ubuntu$ vagrant destroy
  
  default: Are you sure you want to destroy the 'default' VM? [y/N]

  => default: Terminating the instance...

joe@CIT-SCC113-1143:~/.aws2019/ubuntu$
EC2 Dashboard

- Events
- Tags
- Reports
- Limits

INSTANCES

- Instances
- Launch Templates
- Spot Requests
- Reserved Instances
- Dedicated Hosts
- Scheduled Instances
- Capacity Reservations

IMAGES

- AMIs
- Bundle Tasks

ELASTIC BLOCK STORE

Resources

You are using the following Amazon EC2 resources in the US East (N. Virginia) region:

- 0 Running Instances
- 0 Elastic IPs
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- 0 Snapshots
- 1 Volumes
- Error retrieving resource
- 1 Key Pairs
- 1 Security Groups
- 1 Placement Groups

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Scheduled Event

https://console.aws.amazon.com/ec2/v2/home?region=us-east-1#Inst...