

Error Documentation.

Task: EC2 creation using Ansible.

I have encountered some errors during the task, and I tried and resolved those errors.

Some errors are common, and some are not.

I am adding the details of the errors and what I did to resolve those to this document.

If you are facing the same errors, hope this document helps you in resolving those errors.

Error 1:

```
olaf@BhargavSai:~/Devops/11901874-K19CC02-EPAM/Ansible_ec2$ ansible-playbook Ec2.yml
[WARNING]: provided hosts list is empty, only localhost is available. Note that
the implicit localhost does not match 'all'
ERROR! couldn't resolve module/action 'ec2'. This often indicates a misspelling, missing collection, or incorrect module path.

The error appears to be in '/home/olaf/Devops/11901874-K19CC02-EPAM/Ansible_ec2/Ec2.yml': line 14, column 7, but may
be elsewhere in the file depending on the exact syntax problem.

The offending line appears to be:

tasks:
  - name: Launch EC2 Instance
    ^ here
```

This error occurred due to unsupported parameters. For ansible to connect to AWS EC2 service we need to use “amazon.aws.ec2_instance” but I do not know this at the time of writing yaml file and used ec2 as parameter. The Ansible console thrown me this error. After going through ec2 ansible documentation I got to know about the parameter and used it.

Error 2:

```
olaf@BhargavSai:~/Devops/11901874-K19CC02-EPAM/Ansible_ec2$ ansible-playbook Ec2.yml
[WARNING]: provided hosts list is empty, only localhost is available. Note that
the implicit localhost does not match 'all'

PLAY [Create EC2 instance] *****

TASK [Launch EC2 Instance] *****
fatal: [localhost]: FAILED! => {"changed": false, "msg": "Failed to import the required Python library (botocore and boto3) on BhargavSai's Python /usr/bin/python3. Please read the module documentation and install it in the appropriate location. If the required library is installed, but Ansible is using the wrong Python interpreter, please consult the documentation on ansible_python_interpreter"}

PLAY RECAP *****
localhost      : ok=0    changed=0    unreachable=0    failed=1
skipped=0      rescued=0    ignored=0
```

This error I faced at the run time is due to boto3 library. For ansible to connect to AWS EC2 service, the host machine must have a python boto3 library installed in it. If the python interpreter, at the time of running did not find boto3 library it throws this error. I resolved it by installing boto3 library.

Command to install boto3 library if not there on your host machine:

pip install boto3.

Error 3:

```
olaf@BhargavSai:~/Devops/11901074-K19CC02-EPAM/Ansible_ec2$ ansible-playbook Ec2.yml
[WARNING]: provided hosts list is empty, only localhost is available. Note that
the implicit localhost does not match 'all'

PLAY [Create EC2 instance] *****

TASK [Launch EC2 Instance] *****
fatal: [localhost]: FAILED! => {"changed": false, "msg": "Unsupported parameters for (amazon.aws.ec2_instance) module: groups. Supported parameters include: asp_callback, access_key, avail
ability_zone, aws_credential_profile, count, cpu_credits_specification, cpu_options, debug_botocore_endpoint_logs, detailed_monitoring, elbs_optimized, endpoint_url, exact_count, filters,
hibernation_options, iam_instance_profile, image, image_id, instance_id, instance_initiated_shutdown_behavior, instance_type, key_name, launch_template, metadata_options, name, network,
placement_group, profile, purge_tags, region, secret_key, security_group, security_groups, session_token, state, tags, tenancy, termination_protection, user_data, validate_certs, volumes,
vpc_subnet_id, wait, wait_timeout (access_token, aws_access_key, aws_access_key_id, aws_endpoint_url, aws_profile, aws_region, aws_secret_access_key, aws_secret_key, aws_security_token, aw
s_session_token, ec2_access_key, ec2_region, ec2_secret_key, ec2_url, instance_role, resource_tags, s3_url, security_token, subnet_id, tower_callback)."}

PLAY RECAP *****
localhost      : ok=0    changed=0    unreachable=0    failed=1
skipped=0      rescued=0    ignored=0
```

Error due to unsupported parameters in yaml file. You need to write the supported parameters as keys in the yaml file. The supported parameters are the ones in the error. Only those are supported in writing tasks related to AWS EC2.

It is advised to go through the documentation before writing a yaml file to avoid such errors.

Ansible provides a documentation on this:

https://docs.ansible.com/ansible/latest/collections/amazon/aws/aws_ec2_inventory.html

Error 4:

```
olaf@BhargavSai:~/Devops/11901074-K19CC02-EPAM/Ansible_ec2$ ansible-playbook Ec2.yml
[WARNING]: provided hosts list is empty, only localhost is available. Note that
the implicit localhost does not match 'all'

PLAY [Create EC2 instance] *****

TASK [Launch EC2 Instance] *****
fatal: [localhost]: FAILED! => {"changed": false, "msg": "Unsupported parameters for (amazon.aws.ec2_instance) module: groups. Supported parameters include: asp_callback, access_key, avail
ability_zone, aws_credential_profile, count, cpu_credits_specification, cpu_options, debug_botocore_endpoint_logs, detailed_monitoring, elbs_optimized, endpoint_url, exact_count, filters,
hibernation_options, iam_instance_profile, image, image_id, instance_id, instance_initiated_shutdown_behavior, instance_type, key_name, launch_template, metadata_options, name, network,
placement_group, profile, purge_tags, region, secret_key, security_group, security_groups, session_token, state, tags, tenancy, termination_protection, user_data, validate_certs, volumes,
vpc_subnet_id, wait, wait_timeout (access_token, aws_access_key, aws_access_key_id, aws_endpoint_url, aws_profile, aws_region, aws_secret_access_key, aws_secret_key, aws_security_token, aw
s_session_token, ec2_access_key, ec2_region, ec2_secret_key, ec2_url, instance_role, resource_tags, s3_url, security_token, subnet_id, tower_callback)."}

PLAY RECAP *****
localhost      : ok=0    changed=0    unreachable=0    failed=1
skipped=0      rescued=0    ignored=0
```

This error I faced due to not specifying necessary IAM permissions for the Access key and Secret key that had been used. I forgot to give EC2 instance access permission to the IAM user that I had used and when I tried to run the yaml file it threw this error.

It is advised to give EC2FullAccess permission to the IAM user to avoid those types of errors.

Yaml file to deploy EC2 with Ansible:

- name: Create EC2 instance

hosts: localhost

connection: local

gather_facts: no

tasks:

- name: Launch EC2 Instance

amazon.aws.ec2_instance:

aws_access_key: <access key>

aws_secret_key: <secret key>

key_name: <key pair>

instance_type: t2.micro

image_id: <ami>

region: <zone>

security_group: default

name: Ansible

wait: true

register: ec2

Bhargav Sai.