

## AWS RESOURCE LISTING AUTOMATION SCRIPT

### Purpose:

The script was created to **automate and standardize the process of discovering and listing AWS resources** across multiple services in an account. It helps administrators and developers **quickly get an inventory of resources** without manually running separate AWS CLI commands for each service, saving time and reducing human error.

### Explanation :

- The script accepts **two inputs**: the AWS region and the target service (e.g., EC2, S3, Lambda).
- It validates that the **AWS CLI is installed and configured**.
- A **case statement** determines which AWS CLI command to run for each service (e.g., describe-instances, list-buckets, list-functions).
- **Global services** like S3 and IAM are handled without requiring a region.
- Results are printed in a **structured format** showing key identifiers for easy review or further processing.
- Includes **error handling** for invalid inputs, missing configuration, and unsupported services.

### OUTPUT

Find Instance by attribute or tag (case-sensitive)

All states

< 1 >

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public
<input type="checkbox"/>	instance_from...	i-01a4e4a3723dc04c6	Running	t2.micro	-	<a href="#">View alarms +</a>	ap-northeast-3a	ec2-56

Buckets are containers for data stored in S3.

Find buckets by name

< 1 >

<input type="radio"/>	Name	AWS Region	IAM Access Analyzer	Creation date
<input type="radio"/>	<a href="#">activemachinebucket2</a>	Asia Pacific (Mumbai) ap-south-1	<a href="#">View analyzer for ap-south-1</a>	July 8, 2025, 21:22:43 (UTC+05:30)

Find Instance by attribute or tag (case-sensitive)

All states

< 1 >

<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input type="checkbox"/>	scriptmachine	i-0cdcd68e9ba5cf427	Running	t2.micro	2/2 checks passed	<a href="#">View alarms +</a>	ap-south-1b	ec2-65-0-
<input type="checkbox"/>	active_machine1	i-027c719c5ced8b23f	Running	t2.micro	2/2 checks passed	<a href="#">View alarms +</a>	ap-south-1b	ec2-15-2f

root@ip-172-31-14-49:~

```
[root@ip-172-31-14-49 ~]# ./aws_resource_listing.sh ap-south-1 ec2
Listing EC2 Instances in ap-south-1
    "InstanceId": "i-0cdcd68e9ba5cf427",
    "InstanceId": "i-027c719c5ced8b23f",
[root@ip-172-31-14-49 ~]# ./aws_resource_listing.sh ap-northeast-3 ec2
Listing EC2 Instances in ap-northeast-3
    "InstanceId": "i-01a4e4a3723dc04c6",
[root@ip-172-31-14-49 ~]# ./aws_resource_listing.sh ap-northeast-3 s3
Listing S3 Buckets Globally
{
  "Buckets": [
    {
      "Name": "activemachinebucket2",
      "CreationDate": "2025-07-08T15:52:44+00:00"
    }
  ],
  "Owner": {
    "ID": "36bb06b824d4b63f3e1e99ba18ac63f42d744ac73456cf115aa2f49d9e80cb23"
  },
  "Prefix": null
}
[root@ip-172-31-14-49 ~]# ./aws_resource_listing.sh ap-south-1 ebs
Listing EBS Volumes in ap-south-1
{
  "Volumes": [
    {
      "Iops": 3000,
      "VolumeType": "gp3",
      "MultiAttachEnabled": false,
      "Throughput": 125,
      "Operator": {
        "Managed": false
      },
      "VolumeId": "vol-05f45539966b975e8",
      "Size": 8,
      "SnapshotId": "snap-014c7848d95a5a42b",
      "AvailabilityZone": "ap-south-1b",
      "State": "in-use",
      "CreateTime": "2025-07-08T15:51:31.201000+00:00",
      "Attachments": [
        {
          "DeleteOnTermination": true,
          "VolumeId": "vol-05f45539966b975e8",
          "InstanceId": "i-027c719c5ced8b23f",
          "Device": "/dev/xvda",
          "State": "attached",
          "AttachTime": "2025-07-08T15:51:31+00:00"
        }
      ]
    }
  ]
}
```