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# AWS Overview

*(Architecture, S3, python-Boto3)*

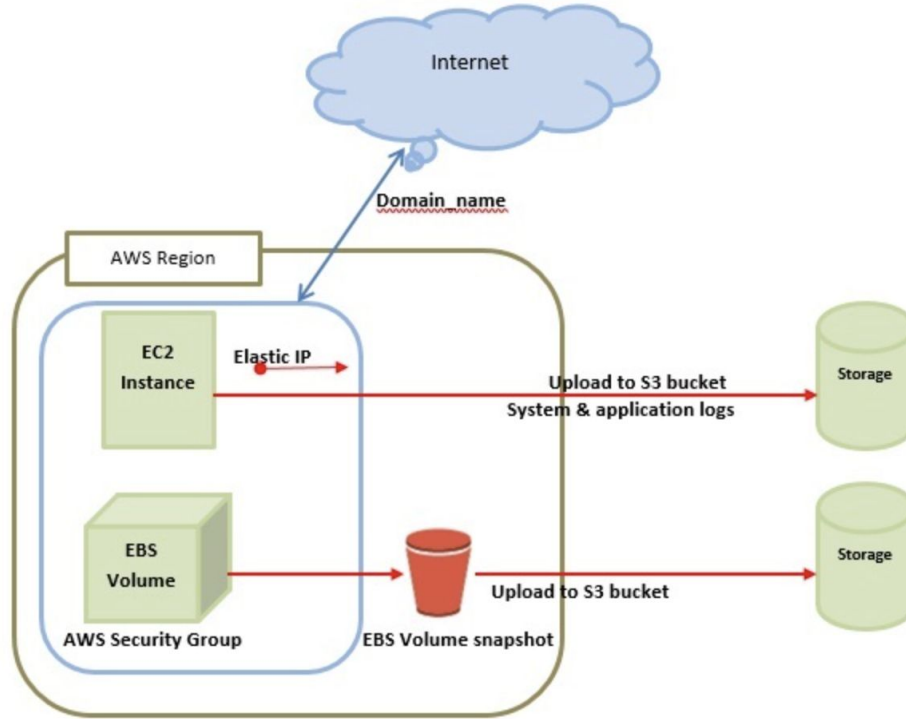
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# What is AWS?

In very simple words “Amazon web services”  
a cloud platform offering compute power,  
database storage, content delivery and various other  
functionalities to anyone from anywhere

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# AWS Architecture



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## EC2

EC2 stands for Elastic Compute Cloud. EC2 allow users to use virtual machines of different configurations as per their requirement.

## S3

Simple Storage Service. It allows the users to store and retrieve various types of data using API calls

(Contains no computing component, much like collection of empty/filled boxes)

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# Jargons

- Load balancer
  - EMR (Elastic map reduce)
  - Cloud front
  - EBS (E block storage)
  - ELB (E load balancer)
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# S3 deep dive

(S)imple (S)torage (S)ervice

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# Basic operations that can be performed on S3 ([Link](#))

- Creating a bucket
  - Uploading to the bucket
  - Fetching from the bucket
  - Copying objects/buckets
  - Deletion of objects/buckets
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# How to perform these CRUD operations

1. Using S3 UI client ([LINK](#))
2. Using REST API
3. Boto3 python library

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This request creates a bucket named colorpictures.

```
PUT / HTTP/1.1
Host: colorpictures.s3.<Region>.amazonaws.com
Content-Length: 0
Date: Wed, 01 Mar 2006 12:00:00 GMT
Authorization: authorization string
```

# REST API

```
#creating a bucket
```

```
import boto3
```

```
s3 = boto3.client('s3')
```

```
s3.create_bucket(Bucket='my-bu  
cket')
```

# Python API

(simple eg. assuming authentication is done)

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```
# Retrieve the list of  
existing buckets  
  
s3 = boto3.client('s3')  
  
response = s3.list_buckets()  
  
# Output the bucket names  
  
print('Existing buckets:')  
  
for bucket in  
response['Buckets']:  
  
    print(f'  
{bucket["Name"]}')
```

# Python API

(simple eg. assuming authentication is done)

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