**What is Amazon EC2?**

Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) Cloud. Using Amazon EC2 eliminates your need to invest in hardware up front, so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic.

Step 1: Choose an Amazon Machine Image (AMI)

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.

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

***Instance types***

* **General Purpose**

T2 instances, T3

M5 instances

M4 instances

* **Compute Optimized**

C4 instances

C3 instances

* **Memory Optimized**

R3 instances, X1, X1e

* **GPU**

G2 instances

* **Storage Optimized**

R3 instances

* **Dense Storage Instances**

I2 instances

. Step 3: Configure Instance Details

Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more

Step 4: Add Storage

Your instance will be launched with the following storage device settings. You can attach additional EBS volumes and instance store volumes to your instance, or edit the settings of the root volume. You can also attach additional EBS volumes after launching an instance, but not instance store volumes.

Step 5: Add Tags

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.

Step 6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below..

|  |  |
| --- | --- |
| **Select an existing keypair or create a newkeypair** |  |
|  | 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. |

***Creating a ON Demand instance***

* Login to web console
* Select compute
* Open the amazon EC2 console
* Select the region MUMBAI
* Check the service health
* Click on EC2 dashboard
* Click on instances
* Click on launch instance
* Select AMI ( Amazon Machine image) (1st one)
* Select instance type
* Select type “t2.micro” -- free tier
* Click next “configure instance details”
* Select defaults
* Click on next “add storage”
* Select defaults
* Add the tag
* Click on configure “security group”
* Select defaults
* Click on review & launch
* Verify the summary, then drag down
* Click on launch button
* Select a key pair
* Enter key pair name
* Click on download key pair
* Click on launch instance
* Check instance staus == running

User data as file

#!/bin/bash

yum update –y

yum install httpd –y

service httpd start

chkconfig httpd on

cd /var/www/html

echo “<html><h1>Welcome to the Linkwell !</h>”>index.html