

## 1. Launch an EC2 Instance from the Web Console

us-west-2.console.aws.amazon.com/ec2/v2/home?region=us-west-2#LaunchInstances:

aws Services Search for services, features, blogs, docs, and more [Alt+S] Oregon pluralsight-419aff4b @ 3534-0348-2816

You've been opted into the new launch experience. Find out more about this experience or send us feedback. You can still return to the previous version by opting-out. Opt out to the old experience

EC2 > Instances > Launch an instance

### Launch an instance [Info](#)

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

#### Name and tags [Info](#)

Name

 [Add additional tags](#)

#### Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Select

Allow tags in metadata [Info](#)

Select

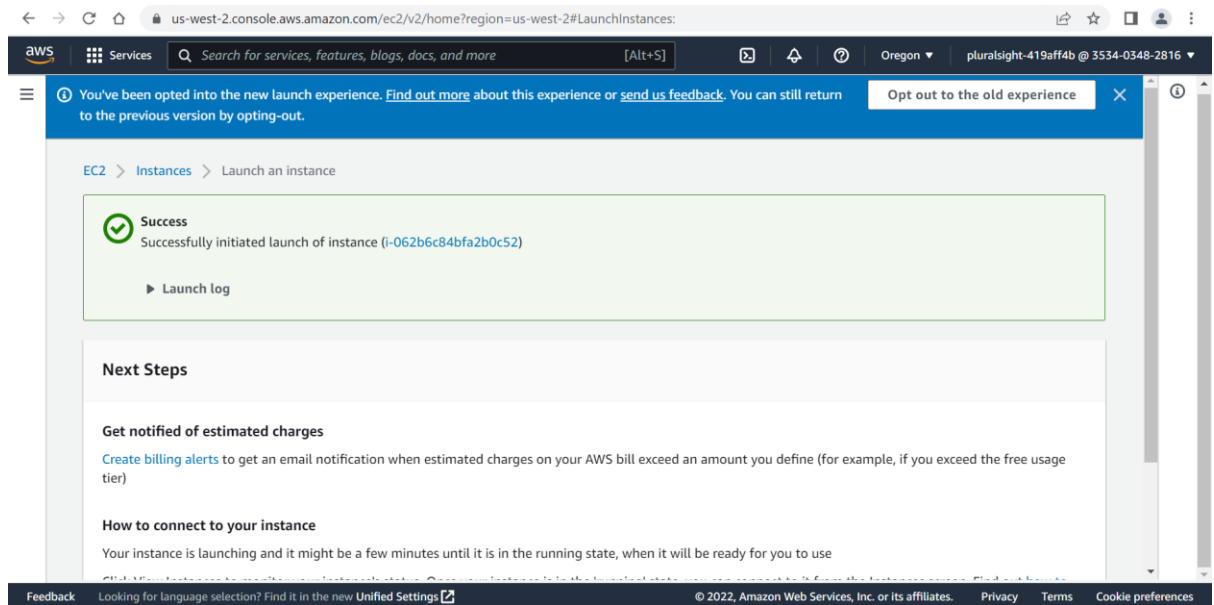
User data [Info](#)

```
#!/bin/bash -xe
yum install -y ruby
cd /opt
curl -O https://aws-codedeploy-us-west-2.s3.amazonaws.com/latest/install
chmod +x ./install
./install auto
```

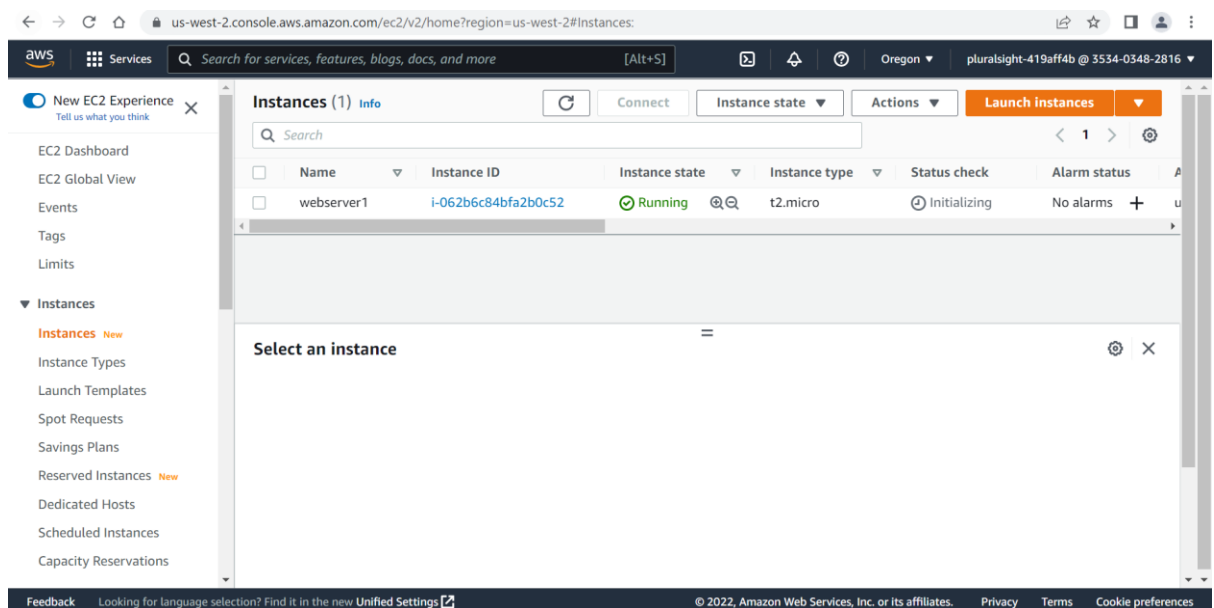
☐ User data has already been base64 encoded

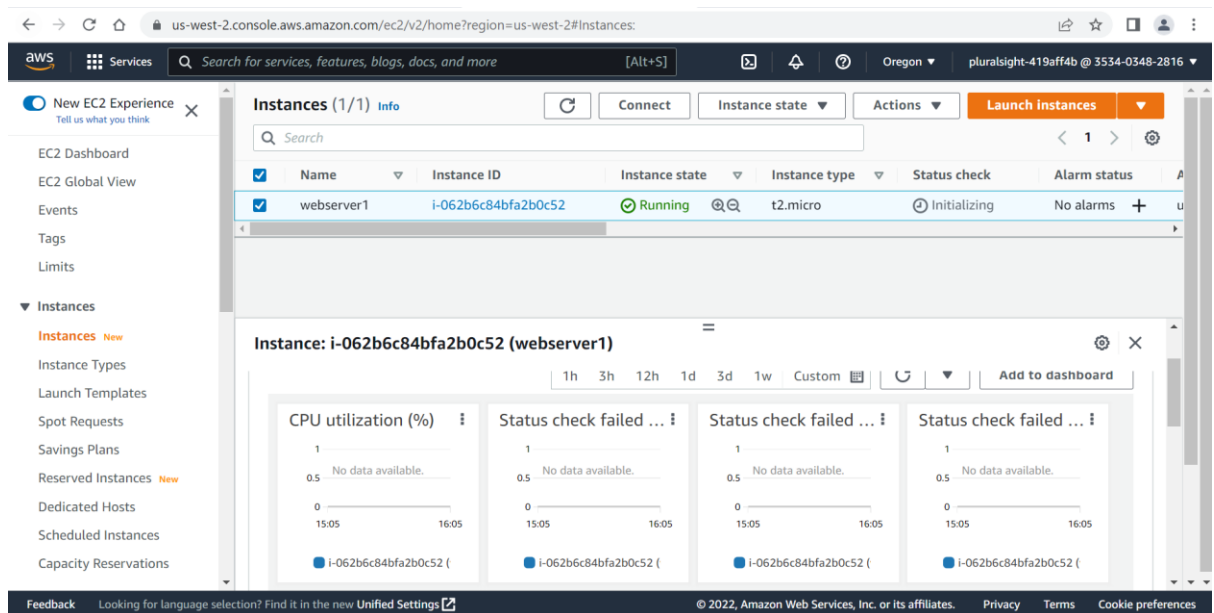
Feedback Looking for language selection? Find it in the new Unified Settings

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## 2. Verify the Instance Status





When you launch your instance, you can launch your instance in a subnet that is associated with one of the following resources:

- An Availability Zone - This option is the default.
- A Local Zone - To launch an instance in a Local Zone, you must opt in to the Local Zone, and then create a subnet in the zone. For more information, see Local Zones
- A Wavelength Zone - To launch an instance in a Wavelength Zone, you must opt in to the Wavelength Zone, and then create a subnet in the zone. For information about how to launch an instance in a Wavelength Zone, see Get started with AWS Wavelength in the AWS Wavelength Developer Guide.
- An Outpost - To launch an instance in an Outpost, you must create an Outpost. For information about how to create an Outpost, see Get Started with AWS Outposts in the AWS Outposts User Guide.

## EC2 Instance Types:

### General Purpose EC2 Instance

This kind of instances are used the most for testing purposes. General purpose instances are divided into “T” and “M” varieties.

“T and M” instances offer two types of virtualization; PV and HVM. The first was the one provided by AWS in the past, and it’s available on t1 and m1 instance types. I wouldn’t recommend it because you can’t take advantage of all the hardware, and in some cases are a bit slower.

Another restriction is that you are going to be able to increase your instance type to instances only based on PV, and the newer instance types are not going to be available. My suggestion is always to use HVM instances.

### **Compute Optimized**

If your application requires to process a lot of information like math operations, load balancing, rendering task or sometimes video encoding, you need an instance that can process all that information in less time. “C” instance is your ally in this stressful operation since it has more CPUs capacity and lower RAM.

### **Memory Optimized**

If your app doesn’t require too much CPU, but instead, it needs more and faster RAM; you should check out the available option on the “X1e, X1 and R” instances.

“X1e” instances are targeted for high-performance databases or in RAM application, but it’s commonly used just by enterprise applications. This instance (x1e.32xlarge) type has an option with almost 4TB of RAM, and it’s certified by SAP to be used with the Business Suite S/HANA.

“X1”, like “X1e”, is targeted to enterprise applications but that require fewer resources, but they are also a pretty good option for Big Data operations and high-performance computing but instead “X1e” options we only have two options to choose with “X1” instances.

“R4” instances are the new generation of “R” instances, an excellent choice for data mining and data analysis and in memory applications such as databases, they have more accessible options with resources that a common user can choose.

“R3” instances are the old generation of the “R” instances, and compared with “R4” are expensive, so if you are considering this option, you better choose “R4”.

### **Accelerated Computing**

Creating a movie and need to render the textures? Need to design with power? Or you just have money to spend and want to play games on streaming? If you feel identified, P and G instances are what you are looking for, all these instances have their own NVIDIA Graphics card and vary the amount of GPU that they have depending on the instance size.

“P2” it’s a “general” purpose instance, but the older version of the “P” instances are more accessible compared with the new ones offer the power that you need for data science, data analysis, and rendering power.

“P3”, the latest version of the “P” instances, offer more power with its NVIDIA Tesla V100. Like the “P2”, this is an excellent option for data analysis, but it’s also going to be incredible at speech recognition and for autonomous vehicles.

“G3” instances are perfect for creating your remote graphics station, the best option for 3D rendering, video encoding or application streaming (yes you can stream an application which requires too many resources, even run a game and stream it to your laptop).

### **Storage Optimized**

This Kind of instances are provisioned with a more significant amount of TB for storage, and you are going to have the best I/O Performance. These instances are a great option for those databases that need to be writing regularly on the disk, here we have three groups of instances: H, I and D.

“H” instances are the best option for distributed file systems or centralized log processing.

“I” instances are also a great choice for databases especially for NoSQL or data warehouse

“D” instances similar to H ones but offer better performance for Massive Parallel Processing data warehousing and distributed computing like Hadoop and MapReduce.