A CLOUD GURU

EC2 Instance Types

1. **Hardware**

   When you launch an instance, the instance type determines the hardware of the host computer used for your instance.

2. **Capabilities**

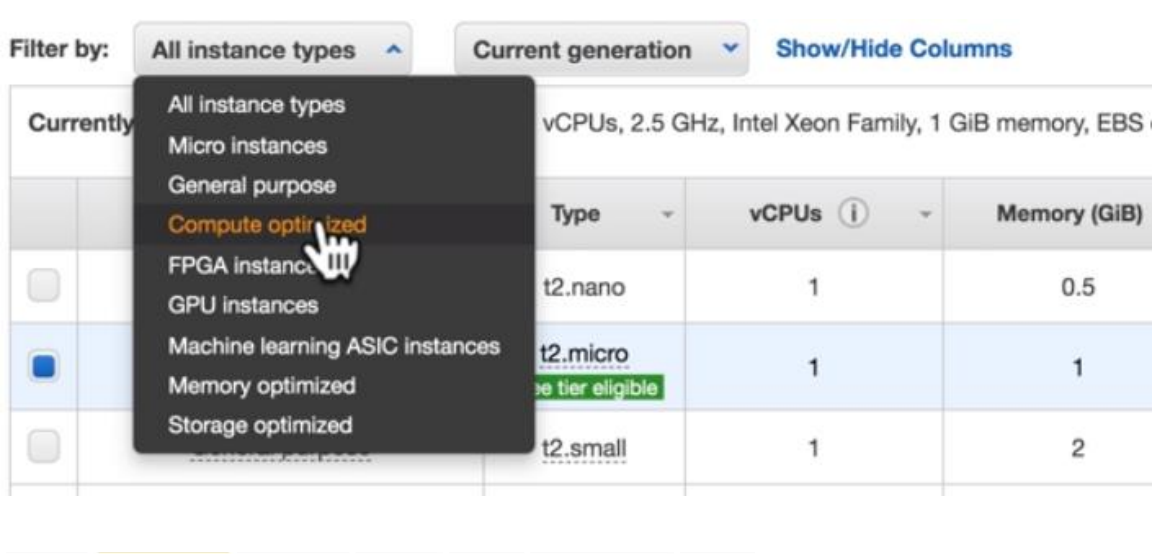
   Each instance type offers different compute, memory, and storage capabilities and are grouped in instance families.

3. **Application Requirements**

   Select an instance type based on the requirements of the application that you plan to run on your instance.

A Wide Selection

Instance types are optimized to fit different use cases and give you the flexibility to choose the appropriate mix of resources for your applications.



General purpose instances provide a balance of compute, memory, and network resources, and are a good choice for many applications. They are recommended for small and medium databases, data processing tasks that require additional memory, caching fleets, and for running backend servers for SAP, Microsoft SharePoint, and other enterprise applications.

Micro instances are eligible for the AWS free usage tier. For the first 12 months following your AWS sign-up date, you get up to 750 hours of micro instances each month. When your free usage tier expires or if your usage exceeds the free tier restrictions, you pay standard, pay-as-you-go service rates.
Learn more about free usage tier eligibility and restrictions

Compute optimized instances have a higher ratio of vCPUs to memory than other families, and the lowest cost per vCPU among all Amazon EC2 instance types. We recommend compute optimized instances for running CPU-bound scale out applications. Examples of such applications include high traffic front end fleets, on-demand batch processing, distributed analytics, web servers, batch processing, and high performance science and engineering applications.

FPGA instances provide customizable field programmable gate arrays that can be programmed to create application specific hardware accelerations, along with high CPU performance, large memory and high network bandwidth for applications requiring massively parallel processing power, such as genomics, data analytics, video processing and financial computing.

Machine learning ASIC instances are powered by chips custom built by AWS and are optimized for running machine learning applications such as image recognition, speech recognition, natural language processing and personalization.

Memory optimized instances have the lowest cost per GB of RAM among Amazon EC2 instance types. We recommend memory optimized instances for many database applications, for memcached and other distributed caches, and larger deployments of enterprise applications like SAP and Microsoft SharePoint.

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. Learn more about instance types and how they can meet your computing needs.

Filter by: All instance types | Current generation | Show/Hide Columns

Currently selected: t2.micro (Variable ECUs, 1 vCPUs, 2.5 GHz, Intel Xeon Family, 1 GiB memory, EBS only)

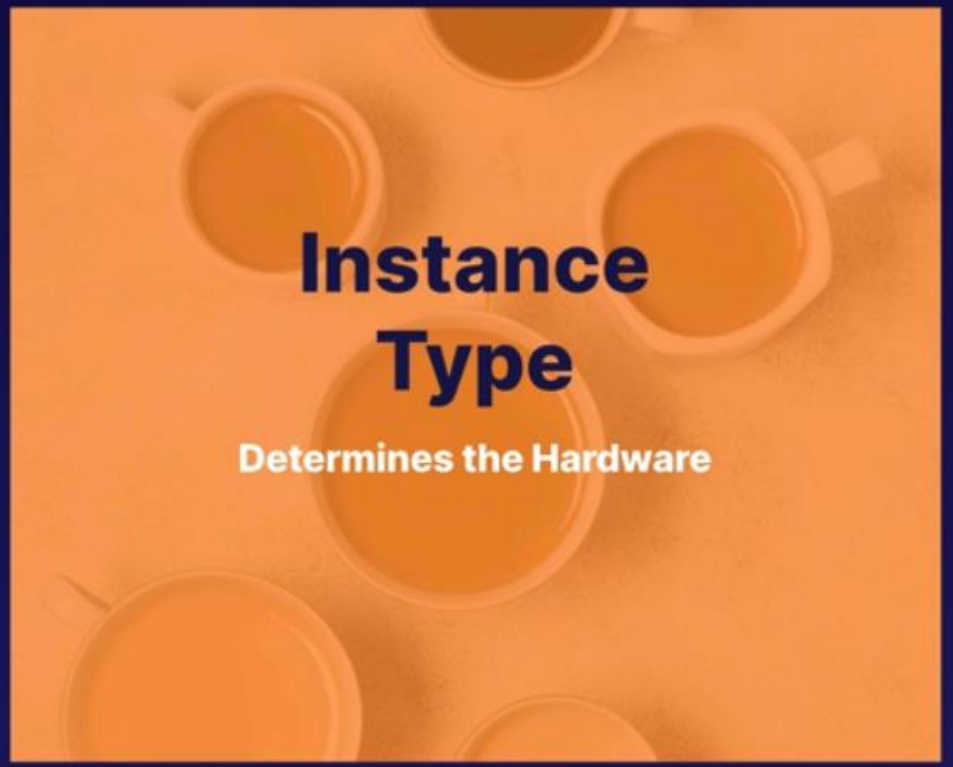
Family	Type	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance	IPv6 Support
General purpose	t2.nano	1	0.5	EBS only	-	Low to Moderate	Yes
General purpose	t2.micro Free tier eligible	1	1	EBS only	-	Low to Moderate	Yes
General purpose	t2.small	1	2	EBS only	-	Low to Moderate	Yes
General purpose	t2.medium	2	4	EBS only	-	Low to Moderate	Yes
General purpose	t2.large	2	8	EBS only	-	Low to Moderate	Yes
General purpose	t2.xlarge	4	16	EBS only	-	Moderate	Yes
General purpose	t2.2xlarge	8	32	EBS only	-	Moderate	Yes

Cancel | Previous | Review and Launch | Next: Configure Instance Details

GPU instances provide graphics processing units (GPUs) along with high CPU and network performance for applications benefiting from highly parallelized processing, including 3D graphics, HPC, rendering, and media processing applications.

Storage optimized instances provides you with direct-attached storage options optimized for applications with specific disk I/O and storage capacity requirements. We recommend I3 instances for NoSQL databases which benefit from very high random I/O performance, and low request latency of direct-attached NVMe SSDs. We recommend D2 instances for running large-scale data warehouse or parallel file systems.

Exam Tips



Determines the hardware of the host computer.

Each instance type offers different compute, memory, and storage capabilities. They are grouped in instance families.

Select an instance type based on the requirements of your application.