

# AWS Cloud EC2 Instance Types

Topics : [AWS](#)

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Here are some common EC2 instance families and types:

## 1. General Purpose Instances:

- **T3 Series:** Burstable instances suitable for applications with variable workloads.
- **T4g Series:** Powered by AWS Graviton2 processors, offering a good balance of performance and cost-effectiveness.
- **T3a Series:** Similar to T3 instances but powered by AMD EPYC processors.

## 2. Compute Optimized Instances:

- **C6g Series:** Compute-optimized instances powered by AWS Graviton2 processors.
- **C5 Series:** Compute-optimized instances suitable for compute-intensive workloads.

## 3. Memory Optimized Instances:

- **R6g Series:** Memory-optimized instances powered by AWS Graviton2 processors.
- **R5 Series:** Memory-optimized instances suitable for memory-intensive applications.

## 4. Storage Optimized Instances:

- **I3 Series:** Storage-optimized instances with high-speed, NVMe-based SSD storage.
- **I3en Series:** I3 instances with additional storage capacity and higher network bandwidth.
- **D3 Series:** Dense storage instances optimized for data-intensive workloads.
- **H1 Series:** HDD-backed storage instances for high-throughput, big data workloads.

## 5. Accelerated Computing Instances:

- **P4, P3 Series:** GPU instances suitable for high-performance computing, deep learning, and machine learning.
- **F1 Series:** Instances with field-programmable gate arrays (FPGAs) for customizable hardware acceleration.
- **Inf1 Series:** Instances with AWS Inferentia chips for high-performance inference in machine learning models.

## 6. Bare Metal Instances:

- **I3 Metal, M5 Metal, etc.:** These instances provide direct access to the underlying

hardware without virtualization, offering high performance and flexibility.

#### 7. Free Tier Instances:

- **t2.micro:** Part of the AWS Free Tier, allowing users to run a micro instance for free each month for 12 months.

#### 8. Graviton2-Based Instances:

- **M6g Series:** General-purpose instances powered by AWS Graviton2 processors.
- **C6g, R6g Series:** Compute and memory-optimized instances powered by Graviton2.

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