🧱 Azure VM Types (Series)

1. 🟩 B-series (Burstable VMs)

- **Use Case:** Low baseline CPU with occasional spikes.

- **Ideal for:** Development, testing, small web servers, and apps with infrequent high usage.

- **Example Sizes:** B1s, B2ms

2. ⚖️ D-series (General Purpose)

- **Use Case:** Balanced CPU and memory.

- **Ideal for:** Web servers, enterprise applications, and small databases.

- **Example Sizes:** D2s_v4, D4as_v5

3. 🧠 E-series (Memory Optimized)

- **Use Case:** High memory-to-core ratio.

- **Ideal for:** Relational databases, in-memory caching, and analytics workloads.

- **Example Sizes:** E4s_v3, E64is_v4

4. 🚀 F-series (Compute Optimized)

- **Use Case:** High CPU-to-memory ratio.

- **Ideal for:** Batch processing, web servers, gaming, and CPU-bound workloads.

- **Example Sizes:** F2s, F32s_v2

5. 📦 Lsv2-series (Storage Optimized)

- **Use Case:** High-throughput and low-latency disk access.

- **Ideal for:** NoSQL databases, big data, and data warehousing.

- **Example Sizes:** L8s_v2, L64s_v2

6. 🖥️ N-series (GPU-enabled VMs)

- **Use Case:** GPU-accelerated compute workloads.

- **Ideal for:** AI/ML training, video rendering, visualization, gaming.

- **Example Subtypes:**

    - **NC-series:** Compute-focused (ML training)

    - **NV-series:** Visualization (graphics rendering, VDI)

    - **ND-series:** Deep learning (training and inference)

7. 🔬 H-series (High Performance Computing - HPC)

- **Use Case:** High-end compute for scientific simulations and modeling.

- **Ideal for:** Weather modeling, engineering simulations, and CFD.

- **Example Sizes:** H16r, HBv2, HBv3

8. 🏢 M-series (Massive Memory)

- **Use Case:** Very large memory workloads.

- **Ideal for:** SAP HANA, large in-memory databases, and big enterprise apps.

- **Example Sizes:** M128ms, M208ms_v2

9. 🛡️ Av2-series (Entry-Level General Purpose)

- **Use Case:** Economical option for basic workloads.

- **Ideal for:** Small web servers, proof of concept, and basic dev/test.

- **Example Sizes:** A2_v2, A4_v2

🔄 Choosing the Right VM

Workload Type	Best VM Type
General purpose	D-series, B-series
Memory-intensive	E-series, M-series
Compute-intensive	F-series, H-series
Storage-intensive	Lsv2-series
Graphics/ML workloads	N-series
Budget/dev workloads	Av2-series, B-series