EC2 Instances
Instance Coding

r 5 . 4xlarge

Purpose ←——— | ——→ Dimension
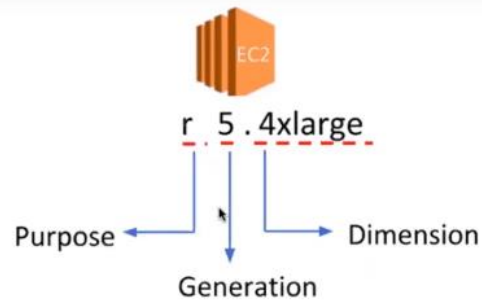
Generation

- R refers to its purpose. It means this EC2 is Memory Optimized instance.

- 5 refers to instance generation. For example, the last generation of the r-family is 5.

- 4xlarge refers to dimension of instance. AWS has built servers of various sizes to suit every need in instance families. For example, the r5-family has 8 different sizes starting from large to 24xlarge.

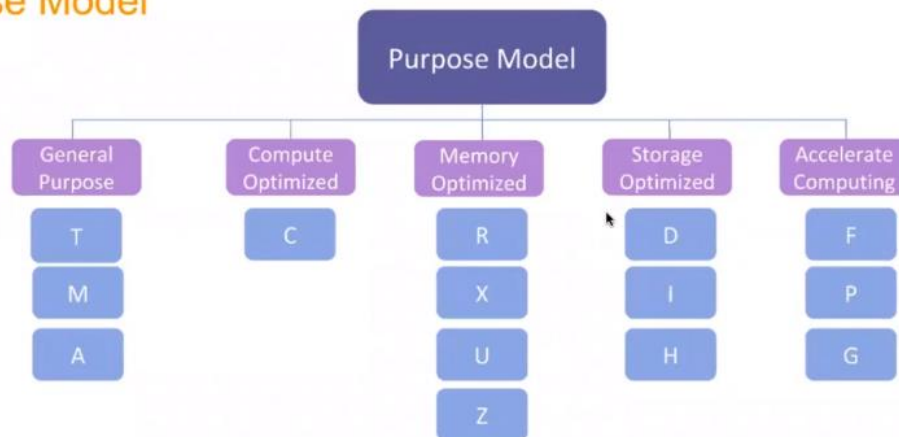- Not all models have instances in every generation and size.
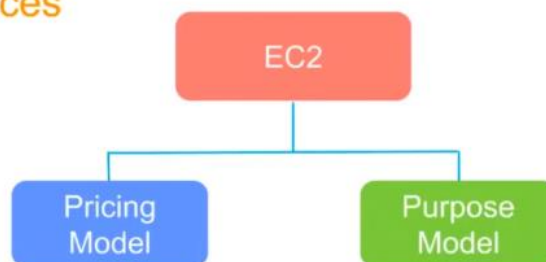
EC2 Instances
Pricing Model of Instances

EC2

| On Demand | Reserved | Spot | Dedicated Host/ Instance |
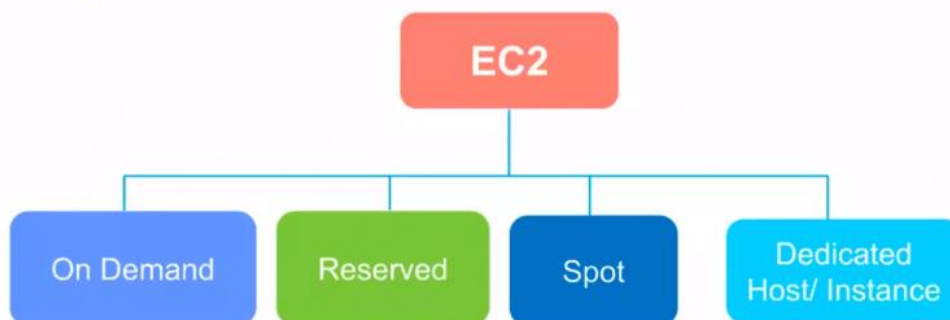
When we look at the pricing perspective, AWS offers 4 different types of instance.

EC2 Instances
Purpose Model

```
                        ┌─────────────────┐
                        │  Purpose Model  │
                        └─────────────────┘
     ┌───────────┬───────────┬───────────┬───────────┬───────────┐
┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
│ General  │ │ Compute  │ │ Memory   │ │ Storage  │ │Accelerate│
│ Purpose  │ │Optimized │ │Optimized │ │Optimized │ │Computing │
└──────────┘ └──────────┘ └──────────┘ └──────────┘ └──────────┘
┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐ ┌──────────┐
│    T     │ │    C     │ │    R     │ │    D     │ │    F     │
└──────────┘ └──────────┘ └──────────┘ └──────────┘ └──────────┘
┌──────────┐              ┌──────────┐ ┌──────────┐ ┌──────────┐
│    M     │              │    X     │ │    I     │ │    P     │
└──────────┘              └──────────┘ └──────────┘ └──────────┘
┌──────────┐              ┌──────────┐ ┌──────────┐ ┌──────────┐
│    A     │              │    U     │ │    H     │ │    G     │
└──────────┘              └──────────┘ └──────────┘ └──────────┘
                          ┌──────────┐
                          │    Z     │
                          └──────────┘
```

AWS offers 14 different types of virtual machines in 5 categories

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EC2 Instances
Types of Instances

```
                  ┌─────────┐
                  │   EC2   │
                  └─────────┘
            ┌──────────┴──────────┐
      ┌──────────┐          ┌──────────┐
      │ Pricing  │          │ Purpose  │
      │  Model   │          │  Model   │
      └──────────┘          └──────────┘
```

- Instance types are grouped into a variety of families based on target application profiles and pricing options. It is possible to categorize EC2 types under two main perspective :

- These are Pricing Model and Purpose Model.