| **Queue Type** | **Capacity** | **Blocking Behavior** | **When to Use** |
| --- | --- | --- | --- |
| **ArrayBlockingQueue** | Fixed size | Blocks if full or empty | When you need a bounded queue with controlled size (producer-consumer pattern). |
| **LinkedBlockingQueue** | Unbounded (optional capacity) | Blocks if full or empty | When you need a high-throughput queue with no limit on the number of tasks. |
| **SynchronousQueue** | No capacity | Blocks on put() if there’s no available thread to take | When you want tasks to be passed immediately between threads, with no queuing. |
| **PriorityBlockingQueue** | Unbounded | Blocks if empty, tasks ordered by priority | When you need tasks executed based on priority, not order of arrival. |
| **DelayQueue** | Unbounded | Blocks until the delay time has passed | When you need to schedule tasks to be executed after a delay (e.g., timeouts, scheduling). |