Priority Queue (PQ) holds -arrival events
-departure events

FIFO Queue (FIFO) holds arrivals waiting for service.

```
struct Customer
{
     float arrivalTime;
     float startOfServiceTime
     float departureTime
   struct Customer * nextCust // for FIFO
}
```

Pseudocode:

```
  Place first arrivals in PQ
  Set serverAvailableCnt to M

  While (PQ is not empty)
     ProcessNextEvent()
     if (moreArrivals and PQ.size <= M+1)
        generate next set of arrivals
  Show simulation results
```

```
ProcessNext Event()
  if (event is an Arrival)
    if (server is available
      decrement ServerAvailableCnt
      startOfServiceTime = arrivalTime
      generateServiceInterval
      compute departureTime as arrivalTime + serviceInterval
      place departureEvent in PQ
    else
      place Customer in FIFO
  else      // processing a departure event
    increment ServerAvailableCnt
    process statistics
    if (Customer in FIFO)
      remove Customer from FIFO
      set startOfServiceTime = time of departure events
      generate ServiceInterval
      compute departureTime as startOfServiceTime +
              ServiceInterval
      place departureEvent in PQ
      decrement ServerAvailableCnt
```