Presentation Week 1

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Stats Calculation

```
while ( np != NULL){
  totalServiceTime += np->processPointer ->
  serviceTime ;
  totalInterarrivalTime += np->
  processPointer ->interarrivalTime ;
  if ( np->pointerToNextNode == NULL){
    maxWaitTime =  np->processPointer ->
    serviceStartTime ;
    totalWaitTime += np->processPointer ->
    serviceStartTime ;
} else {
  maxWaitTime = fmax ( np->processPointer ->
  serviceStartTime − np->processPointer ->
  arrivalTime ,  maxWaitTime );
  totalWaitTime += np->processPointer ->
  serviceStartTime −np->processPointer ->arriva
```

FCFS(50 processes)

Mean Service Time $= 1.759322$
Mean Interarrival Time $= 2.530883$
Mean Wait Time $= 5.686991$
Max Wait Time $= 19.837469$
Total Service Time $= 87.966107$

SJF Scheduling Algorithm

- Used 2 queues and 1 priority queue

```
double elapsedTime = 0.0;
while( !isPriorityQueueEmpty(pq) ) {
  ProcessPointer pp = pqDequeue( pq );
  pp->interarrivalTime = exponentialRando
  elapsedTime += pp->interarrivalTime;
  pp->arrivalTime = elapsedTime;
  enqueue(qp, pp);
}
```

SJF VS FCF Scheduling Algorithm

FCF

Mean Wait Time = 6.824055

Max Wait Time = 20.746983

SJF

Mean Wait Time = 2.722468

Max Wait Time = 22.349898

THE END!!!