**Report:**

1. Algorithm definitions:
   1. **FCFS (First Come First Server)** – The requests are handled in the order of which they arrived. Every request gets a fair chance of management but may not be the best route to take when trying to optimize performance or results.
   2. **SSTF (Shortest Seek Time First)** – the requests with the shortest seek times would be prioritized first no matter what order the requests come in. In order to do this, before any of the requests are processed, the disk scheduling algorithm would calculate each individual seek time to place in order each request from shortest to longest seek time.
   3. **SCAN** – Also known as the elevator algorithm, there is a disk arm that moves in a specific direction and processes requests in that line of pathing. Once it completes that, it reverses its path and does the same with all the requests within that path until the requests are all completed.
   4. **C-SCAN** – Very similar to how SCAN algorithm begins but instead of reversing after it completes the path, the arm goes to the other end of disk and begins moving in a circular motion which is what the C stands for in C-SCAN. It will process requests it finds within that path route.
   5. **LOOK –** The LOOK algorithm is very similar to the SCAN algorithm but once it completes the requests from first to last, instead of traversing through to the end of the disk, it reverses immediately after the last request and goes back to the front without wasting time traversing to the end of the disk and then begin heading back.
2. The result (total amount of head movement) for each algorithm:

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| --- | --- |
| **Algorithm** | **Result (Total head movement)** |
| FCFS (First Come First Serve) | 326096 |
| SSTF (Shortest Seek Time First) | 1997 |
| SCAN | 2001 |
| C-SCAN | 999 |
| LOOK | 1000 |

1. The algorithm that is most efficient would be either C-SCAN or LOOK because both algorithms have ways around traversing through the entire disk when processing all the requests. This prevents the algorithm from wasting time traversing unnecessary space.