Data Structures and Algorithms

Project Phase 1 Report

**Number of Members: 3**

# Members' Info:

|  |  |  |  |
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# Selected Data Structures:

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| --- | --- | --- |
| **List Name** | **Chosen DS** | **Justification** |
| NEW List | Queue | * (FIFO order): The queue ensures that the processes are scheduled in the order they arrived, in a FIFO order. (As they are sorted by arrival time in the input file) * Fast Insertion and Removal   + inserting a new process in the queue is O(1)   + removing the first process from the front of the queue has a time complexity of O(1)   Therefore, using a queue to store new processes ensures that the process scheduler can efficiently manage incoming processes and schedule them for execution in an orderly manner. |
| TRM List | Queue |  |
| BLK List | Queue |  |
| FCFS RDY list | List |  |
| SJF RDY list | Priority Queue |  |
| RR RDY list | Queue |  |
| Processors List | List |  |