Connor Burleson

CS 201 – Assignment #6

HDD Simulation

Professor Hibbeler

**Experiment #1 (Seed 8):**

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| **Track Numbers**  **(25 Requests)** | [96 170 47 183 157 108 88 140 152 158 169 138 186 22 137 142 177 68 131 102 96 118 0 77 27] |
| **FCFS Service Order** | [96 170 47 183 157 108 88 140 152 158 169 138 186 22 137 142 177 68 131 102 96 118 0 77 27] |
| **SSTF Service Order** | [102 96 96 88 77 68 47 27 22 0 108 118 131 137 138 140 142 152 157 158 169 170 177 183 186] |
| **SCAN Service Order** | [102 108 118 131 137 138 140 142 152 157 158 169 170 177 183 186 96 96 88 77 68 47 27 22 0] |

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| **Scheduler Type** | **Mean Displacement Per Request** |
| FCFS | 55.40 |
| SSTF | 11.60 |
| SCAN | 10.88 |

**Experiment #2 (Seed 11):**

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| **Track Numbers**  **(25 Requests)** | [114 79 124 44 56 143 143 124 196 184 103 20 26 153 80 115 103 41 28 32 89 198 43 100 149] |
| **FCFS Service Order** | [114 79 124 44 56 143 143 124 196 184 103 20 26 153 80 115 103 41 28 32 89 198 43 100 149] |
| **SSTF Service Order** | [100 103 103 114 115 124 124 143 143 149 153 184 196 198 89 80 79 56 44 43 41 32 28 26 20] |
| **SCAN Service Order** | [103 114 115 124 143 149 153 184 196 198 143 124 103 100 89 80 79 56 44 43 41 32 28 26 20] |

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| **Scheduler Type** | **Mean Displacement Per Request** |
| FCFS | 51.96 |
| SSTF | 11.04 |
| SCAN | 11.14 |

**Experiment #3 (Seed 14):**

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| **Track Numbers**  **(25 Requests)** | [133 189 0 104 156 177 197 109 39 10 37 103 66 85 23 88 29 14 125 161 82 77 86 122 72] |
| **FCFS Service Order** | [133 189 0 104 156 177 197 109 39 10 37 103 66 85 23 88 29 14 125 161 82 77 86 122 7] |
| **SSTF Service Order** | [103 104 109 122 125 133 156 161 177 189 197 88 86 85 82 77 72 66 39 37 29 23 14 10 0] |
| **SCAN Service Order** | [103 104 109 122 125 133 156 161 177 189 197 88 86 85 82 77 72 66 39 37 29 23 14 10 0] |

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| **Scheduler Type** | **Mean Displacement Per Request** |
| FCFS | 53.52 |
| SSTF | 11.76 |
| SCAN | 11.88 |

**Experiment #4 (Seed 16):**

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| **Track Numbers**  **(25 Requests)** | [78 62 185 145 23 0 34 165 135 161 59 24 26 173 185 136 179 63 123 48 77 63 182 4 20] |
| **FCFS Service Order** | [78 62 185 145 23 0 34 165 135 161 59 24 26 173 185 136 179 63 123 48 77 63 182 4 20] |
| **SSTF Service Order** | [78 77 63 63 62 59 48 34 26 24 23 20 4 0 123 135 136 145 161 165 173 179 182 185 185] |
| **SCAN Service Order** | [123 135 136 145 161 165 173 179 182 185 185 78 77 63 63 62 59 48 34 26 24 23 20 4 0] |

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| **Scheduler Type** | **Mean Displacement Per Request** |
| FCFS | 62.56 |
| SSTF | 11.40 |
| SCAN | 10.80 |

**Experiment #5 (Seed 17):**

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| **Track Numbers**  **(25 Requests)** | [151 99 77 165 56 11 52 93 83 36 171 185 106 17 166 61 155 187 22 91 75 156 129 145 194] |
| **FCFS Service Order** | [151 99 77 165 56 11 52 93 83 36 171 185 106 17 166 61 155 187 22 91 75 156 129 145 194] |
| **SSTF Service Order** | [99 93 91 83 77 75 61 56 52 36 22 17 11 106 129 145 151 155 156 165 166 171 185 187 194] |
| **SCAN Service Order** | [106 129 145 151 155 156 165 166 171 185 187 194 99 93 91 83 77 75 61 56 52 36 22 17 11] |

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| **Scheduler Type** | **Mean Displacement Per Request** |
| FCFS | 65.04 |
| SSTF | 10.90 |
| SCAN | 11.08 |