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ECE 362

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1. Standard out and standard error are separate so that, when the output location is changed, errors are not sent to the same place. If the error was sent to the same location as the output, we’d never see if an error occurred unless we looked in the location. This isn’t very help for debugging purposes.
2. Fork and exec are separate so that the process can fork more than once without having to execute anything. The forks can also wait for returning data from their children before executing which can make multi-piped processes.
3. Voodoo constants are configuration values in a program that are specific to the original programmer’s usage. They are default parameters that can be bad for your process if you are doing something very different. They are often forgotten about and can cause problems unless modified for your current situation.
4. a



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Process  Name | Arrival  Time | Service Req | Start  Time | Finish  Time | T | W | P |
| A | 0 | 3 | 0 | 3 | 3 | 0 | 1 |
| B | 1 | 5 | 4 | 9 | 8 | 3 | 1.6 |
| C | 3 | 2 | 10 | 12 | 9 | 7 | 4.5 |
| D | 9 | 5 | 13 | 18 | 9 | 4 | 1.8 |
| E | 12 | 5 | 19 | 24 | 12 | 7 | 2.4 |
| Mean: |  | 4 |  |  | 8.2 | 4.2 | 2.26 |

b



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Process  Name | Arrival  Time | Service Req | Start  Time | Finish  Time | T | W | P |
| A | 0 | 3 | 0 | 3 | 3 | 0 | 1 |
| B | 1 | 5 | 4 | 13 | 12 | 7 | 2.4 |
| C | 3 | 2 | 8 | 10 | 7 | 5 | 3.5 |
| D | 9 | 5 | 14 | 24 | 15 | 10 | 3 |
| E | 12 | 5 | 18 | 27 | 15 | 10 | 3 |
| Mean: |  | 4 |  |  | 10.4 | 6.4 | 2.58 |

5.

a.

|  |  |
| --- | --- |
| First Fit | 20K |
| Best Fit | 12K |
| Next Fit |  |

b.

|  |  |
| --- | --- |
| First Fit | 10K |
| Best Fit | 10K |
| Next Fit |  |

c.

|  |  |
| --- | --- |
| First Fit | 10K |
| Best Fit | 9K |
| Next Fit |  |

6.



|  |  |  |
| --- | --- | --- |
| Block | Size | Address |
| 1 | 8K | 0x08 |
| 2 | 16K | 0x10 |
| 3 | 32K | 0xA0 |
| 4 | 64K | 0xC0 |