Group 1: Lab 1 Report

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Date Submitted: June 11, 2018

**Policy Evaluation**

To

**Analysis of FCFS (First Come First Serve)**

We

**Analysis of SJF (Shortest Job First)**

We

**Analysis of RR (Round Robin) and Increasing Quanta**

We will

**Conclusion**

With

**Appendix A**

**Chart 1**

*Normal Processes Management Numbers (Infinite Memory Simulation)*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Policy** | **Policy #** | **TAT** | **RT** | **CBT** | **T** | **AWT** | **AWTJQ** |
| FCFS | 1 | 17.64442 | 3.047076 | 0.971351 | 0.987758 | 12.43534 | 0.000958 |
| SRTF | 2 | 4.173769 | 1.412055 | 0.971077 | 1.048127 | 2.097974 | 0.00101 |
| RR (Q = 10ms) | 3, 10 | 10.23431 | 0.099957 | 0.969449 | 1.013891 | 8.952775 | 0.000984 |
| RR (Q = 20ms) | 3, 20 | 10.19887 | 0.190994 | 0.971757 | 1.013915 | 8.802644 | 0.000981 |
| RR (Q = 50ms) | 3, 50 | 10.90213 | 0.462383 | 0.977336 | 1.013814 | 9.153792 | 0.000997 |
| RR (Q = 250ms) | 3, 250 | 14.64876 | 1.852088 | 0.980493 | 0.9872 | 10.95575 | 0.001028 |
| RR (Q = 500ms) | 3, 500 | 16.37551 | 2.616493 | 0.980581 | 0.98304 | 11.6654 | 0.001011 |

**Chart 2**

*Paging Policy Numbers*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Policy** | **Policy #** | **TAT** | **RT** | **CBT** | **T** | **AWT** | **AWTJQ** |
| FCFS | 1 | 17.15644 | 3.439813 | 0.971265 | 0.98767 | 11.56753 | 0.571889 |
| SRTF | 2 | 4.17356 | 1.412368 | 0.971038 | 1.048085 | 2.098345 | 0.001053 |
| RR (Q = 10ms) | 3, 10 | 10.26379 | 0.100318 | 0.969268 | 1.013832 | 8.981197 | 0.001062 |
| RR (Q = 20ms) | 3, 20 | 10.22819 | 0.192112 | 0.971609 | 1.01385 | 8.831831 | 0.001026 |
| RR (Q = 50ms) | 3, 50 | 10.93009 | 0.462311 | 0.977304 | 1.013781 | 9.17722 | 0.001016 |
| RR (Q = 250ms) | 3, 250 | 14.52419 | 1.975541 | 0.98024 | 0.987072 | 10.71222 | 0.161976 |
| RR (Q = 500ms) | 3, 500 | 16.16518 | 2.859196 | 0.980961 | 0.983298 | 11.19528 | 0.337795 |

**Chart 3**

*OMAP Policy Numbers*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Policy** | **Policy #** | **TAT** | **RT** | **CBT** | **T** | **AWT** | **AWTJQ** |
| FCFS | 1 | 17.19411 | 3.413348 | 0.97109 | 0.987492 | 11.60891 | 0.540231 |
| SRTF | 2 | 4.174195 | 1.412899 | 0.970905 | 1.047942 | 2.098596 | 0.001216 |
| RR (Q = 10ms) | 3, 10 | 10.60194 | 0.104472 | 0.966599 | 1.013796 | 9.309839 | 0.001214 |
| RR (Q = 20ms) | 3, 20 | 10.33066 | 0.1929 | 0.970398 | 1.01371 | 8.929999 | 0.00119 |
| RR (Q = 50ms) | 3, 50 | 10.945 | 0.463816 | 0.976738 | 1.013641 | 9.185956 | 0.001173 |
| RR (Q = 250ms) | 3, 250 | 14.52005 | 1.983741 | 0.980103 | 0.986935 | 10.72079 | 0.162178 |
| RR (Q = 500ms) | 3, 500 | 16.13964 | 2.827537 | 0.980874 | 0.983211 | 11.21922 | 0.299752 |

**Chart 4**

*Best Fit Policy Numbers*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Policy** | **Policy #** | **TAT** | **RT** | **CBT** | **T** | **AWT** | **AWTJQ** |
| FCFS | 1 | 17.19594 | 3.416202 | 0.971134 | 0.987536 | 11.61106 | 0.540072 |
| SRTF | 2 | 4.175159 | 1.412669 | 0.970769 | 1.047795 | 2.101575 | 0.001158 |
| RR (Q = 10ms) | 3, 10 | 10.49847 | 0.102769 | 0.968138 | 1.013827 | 9.209833 | 0.001146 |
| RR (Q = 20ms) | 3, 20 | 10.26941 | 0.193301 | 0.970975 | 1.013773 | 8.870048 | 0.00115 |
| RR (Q = 50ms) | 3, 50 | 10.92019 | 0.461707 | 0.976672 | 1.013349 | 9.167934 | 0.001137 |
| RR (Q = 250ms) | 3, 250 | 14.501 | 1.978346 | 0.98021 | 0.987043 | 10.69565 | 0.162122 |
| RR (Q = 500ms) | 3, 500 | 16.14011 | 2.826067 | 0.980976 | 0.983313 | 11.21326 | 0.299651 |

**Chart 5**

*Best Fit Policy Numbers*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Policy** | **Policy #** | **TAT** | **RT** | **CBT** | **T** | **AWT** | **AWTJQ** |
| FCFS | 1 | 17.20267 | 3.41853 | 0.971031 | 0.987432 | 11.61596 | 0.540186 |
| SRTF | 2 | 4.171783 | 1.424427 | 0.970829 | 1.04786 | 2.103694 | 0.0012 |
| RR (Q = 10ms) | 3, 10 | 10.67592 | 0.104905 | 0.96571 | 1.013723 | 9.381994 | 0.001279 |
| RR (Q = 20ms) | 3, 20 | 10.4217 | 0.195185 | 0.969649 | 1.01376 | 9.016386 | 0.001209 |
| RR (Q = 50ms) | 3, 50 | 11.0227 | 0.468525 | 0.976457 | 1.013574 | 9.263185 | 0.001207 |
| RR (Q = 250ms) | 3, 250 | 14.53506 | 1.991033 | 0.980795 | 0.987802 | 10.72898 | 0.167215 |
| RR (Q = 500ms) | 3, 500 | 16.15672 | 2.841877 | 0.979554 | 0.982484 | 11.22846 | 0.299688 |

**Chart 3**

*Discrepancy Between Behind the Scenes and Process Management Numbers (Displayed as percentage)*

This was calculated with the following formula. Significant units were not modified:

((Behind the Scenes Cells – Process Management Cells) / Process Management Cells) \* 100

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Policy** | **Policy Number** | **TAT** | **RT** | **CBT** | **T** | **AWT** |
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**Appendix B**

**Chart 1**

**Chart 2**

**Chart 3**

**Chart 4**

**Chart 5**

**Chart 6**