Algorithms Running Time Tool

Created (Feb 2019) by Vikram Pandey https://www.linkedin.com/in/vikram-pandey-693702a7/

Input Size 1

1000

Time for Input 1

0.0044

Input Size 2

2000

Time for Input 2

0.0075

Input Size 3

4000

Time for Input 3

0.0097

Input Size 4

8000

Time for Input 4

0.02

Input size to predict time

1000000

Apply Changes

```
[1] "         Doubling Method                                  "
[1] "T(N) = a * N ^ b"
[1] "a =  0.00015669330372506  |  b =  0.728141523712476"
[1] "                                                          "
[1] "                                                          "
[1] "                                                          "
[1] "         Linear Regression Method                                  "
[1] "log(T(n)) = b*log(n) + c      thus, T(n) = 10 ^ (b*log(n) + c"
[1] "b =  0.692436786510353   |  c =  -4.43839780634022"
[1] "                                                          "
[1] "                                                          "
[1] "                                                          "
[1] "Estimated Running Time for  1000000  Input(s)"
[1] "Doubling:  3.66352854361317    |   Linear Regression:  0.520262966252733"
[1] "                                                          "
[1] "                                                          "
[1] "                                                          "
[1] "Doubling Data"
  Input Size   Time   Ratios log(2) Ratios a (coefficient)
1       1000 0.0044 1.704545     0.7693871    2.164170e-05
2       2000 0.0075 1.293333     0.3710942    4.467539e-04
3       4000 0.0097 2.061856     1.0439433    1.684322e-06
4       8000 0.0200       NA            NA              NA
[1] "                                                    "
[1] "Linear Model Data"
  Input Size Time (Model Estimate) Time (Actual)
1       1000           0.004354242        0.0044
2       2000           0.007036502        0.0075
3       4000           0.011371062        0.0097
4       8000           0.018375759        0.0200
```