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CSCI 2110

October 2, 2015

Lab 3 Results

**Exercise 2 (Table of values):**

|  |  |  |
| --- | --- | --- |
| Substring | Number of matches found | Time taken (ms) |
| CC | 6715 | 35 |
| ATCCTTTACTCAATCT | 0 | 77 |
| TTTACT | 67 | 60 |
| AGTT | 913 | 48 |
| C | 32427 | 27 |
| &^$%#()Q | 0 | 13 |
| A | 51326 | 31 |
| T | 52300 | 44 |
| G | 34407 | 32 |
| AT | 14682 | 41 |
| TACCAAATGCACTCACAT | 1 | 107 |
| TA | 11820 | 45 |
| TAG | 2246 | 38 |
| GAG | 2034 | 31 |
| TATT | 1326 | 50 |
| GAGGAG | 48 | 44 |
| GAGGAGTAT | 1 | 57 |
| CACT | 497 | 34 |

Observations: It was observed that in general, the longer the substring to search for, the longer it took for the program to execute.

**Exercise 4:**

|  |  |
| --- | --- |
| Test case | Time taken (ms) |
| Method 1 to find GCD of 40th and 41st Fibonacci numbers | 1913 |
| Method 2 to find GCD of 40th and 41st Fibonacci numbers | 947 |
| Method 1 to find GCD of 50th and 51st Fibonacci numbers | 224789 |
| Method 2 to find GCD of 50th and 51st Fibonacci numbers | 116830 |