CSE 4065

Introduction to Computational Genomics

Assignment#1 Report

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Input file: Input.txt -> base 540

k : 7   x : 2

```
Default file name(InputA) is assigned when it was not entered any file name

Enter a file name (without ".txt"): Input
Input k: 7
Input x: 2
Outputs:
7-mer: ATGATCA,TGATCAA,TGATCAT,GATCAAG,TGACATC,CTCTTGA,TCTTGAT,CTTGATC,TTGATCA,AATGATC,AAGCATG,AGCATGA,GCATGAT,CATGATC,CAAGGTG,GTTTATC,ATCAAGA,GCCATAT,
Reverse complement:
TGATCAT appearing 4 times
TTGATCA appearing 3 times
ATGATCA appearing 5 times
CTTGATC appearing 3 times
GATGTCA appearing 0 times
TCAAGAG appearing 1 times
ATCAAGA appearing 2 times
GATCAAG appearing 3 times
TGATCAA appearing 4 times
GATCATT appearing 0 times
CATGCTT appearing 1 times
TCATGCT appearing 0 times
ATCATGC appearing 0 times
GATCATG appearing 2 times
CACCTTG appearing 0 times
GATAAAC appearing 0 times
TCTTGAT appearing 3 times
ATATGGC appearing 0 times
ATTCATT appearing 0 times
CACAAGT appearing 0 times
ACAAGTC appearing 0 times
GGAAGCA appearing 0 times
TGAAGAT appearing 1 times
CATGATC appearing 2 times
GATGATC appearing 1 times
CGATGAT appearing 0 times
CAAGAGC appearing 0 times
```

7-mer: `ATCAAGA,GCCATAT,AATGAAT,ACTTGTG,GACTTGT,TGCTTCC,ATCTTCA,GATCATG,GATCATC,ATCATCG,GCTCTTG`

----

k : 7   x : 3

```
Default file name(InputA) is assigned when it was not entered any file name

Enter a file name (without ".txt"): Input
Input k: 7
Input x: 3
Outputs:
7-mer: ATGATCA,TGATCAA,TGATCAT,GATCAAG,TGACATC,CTCTTGA,TCTTGAT,CTTGATC,TTGATCA
Reverse complement:
TGATCAT appearing 4 times
TTGATCA appearing 3 times
ATGATCA appearing 5 times
CTTGATC appearing 3 times
GATGTCA appearing 0 times
TCAAGAG appearing 1 times
ATCAAGA appearing 2 times
GATCAAG appearing 3 times
TGATCAA appearing 4 times

Process finished with exit code 0
```

k : 7   x : 4

```
Default file name(InputA) is assigned when it was not entered any file name

Enter a file name (without ".txt"): Input
Input k: 7
Input x: 4
Outputs:
7-mer: ATGATCA,TGATCAA,TGATCAT
Reverse complement:
TGATCAT appearing 4 times
TTGATCA appearing 3 times
ATGATCA appearing 5 times


Process finished with exit code 0
```

----

k : 8   x : 2

```
Enter a file name (without ".txt"): Input
Input k: 8
Input x: 2
Outputs:
8-mer: ATGATCAA,TGATCAAG,CTCTTGAT,TCTTGATC,CTTGATCA,TTGATCAT,AATGATCA,AAGCATGA,AGCATGAT,GCATGATC,CATGATCA,TGATCATG,TGATCATC,GATCATCG,GCTCTTGA
Reverse complement:
TTGATCAT appearing 3 times
CTTGATCA appearing 3 times
ATCAAGAG appearing 1 times
GATCAAGA appearing 1 times
TGATCAAG appearing 3 times
ATGATCAA appearing 4 times
TGATCATT appearing 0 times
TCATGCTT appearing 0 times
ATCATGCT appearing 0 times
GATCATGC appearing 0 times
TGATCATG appearing 2 times
CATGATCA appearing 2 times
GATGATCA appearing 1 times
CGATGATC appearing 0 times
TCAAGAGC appearing 0 times

Process finished with exit code 0
```

----

k : 8   x : 3

```
Default file name(InputA) is assigned when it was not entered any file name

Enter a file name (without ".txt"): Input
Input k: 8
Input x: 3
Outputs:
8-mer: ATGATCAA,TGATCAAG,CTCTTGAT,TCTTGATC,CTTGATCA,TTGATCAT
Reverse complement:
TTGATCAT appearing 3 times
CTTGATCA appearing 3 times
ATCAAGAG appearing 1 times
GATCAAGA appearing 1 times
TGATCAAG appearing 3 times
ATGATCAA appearing 4 times


Process finished with exit code 0
```

k : 8   x : 4

```
Default file name(InputA) is assigned when it was not entered any file name

Enter a file name (without ".txt"): Input
Input k: 8
Input x: 4
Outputs:
8-mer: ATGATCAA
Reverse complement:
TTGATCAT appearing 3 times

Process finished with exit code 0
```

----

k : 9   x : 2

```
Enter a file name (without ".txt"): Input
Input k: 9
Input x: 2
Outputs:
9-mer: ATGATCAAG,CTCTTGATC,TCTTGATCA,CTTGATCAT,AATGATCAA,AAGCATGAT,AGCATGATC,GCATGATCA,TTGATCATC,TGATCATCG,GCTCTTGAT
Reverse complement:
CTTGATCAT appearing 3 times
GATCAAGAG appearing 1 times
TGATCAAGA appearing 1 times
ATGATCAAG appearing 3 times
TTGATCATT appearing 0 times
ATCATGCTT appearing 0 times
GATCATGCT appearing 0 times
TGATCATGC appearing 0 times
GATGATCAA appearing 1 times
CGATGATCA appearing 0 times
ATCAAGAGC appearing 0 times

Process finished with exit code 0
```

----

k : 9   x : 3

```
Default file name(InputA) is assigned when it was not entered any file name

Enter a file name (without ".txt"): Input
Input k: 9
Input x: 3
Outputs:
9-mer: ATGATCAAG,CTCTTGATC,TCTTGATCA,CTTGATCAT
Reverse complement:
CTTGATCAT appearing 3 times
GATCAAGAG appearing 1 times
TGATCAAGA appearing 1 times
ATGATCAAG appearing 3 times

Process finished with exit code 0
```