

INSTITUTO TECNOLÓGICO Y DE ESTUDIOS  
SUPERIORES DE MONTERREY

## Actividad 4.2. Ejercicio de programación 1

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# P1 Results

## TC1

```
Results saved to 'StatisticsResults.txt'
(base) PS C:\Users\delrivero.m\01362368_Numero de actividadA4.2\P1\source> python computeStatistics.py TC1.txt
Reading data from 'TC1.txt'...

Successfully loaded 400 numbers.
Calculating statistics...

=====
DESCRIPTIVE STATISTICS RESULTS
=====
Count of numbers: 400
Mean: 242.3200
Median: 239.5000
Mode: 393.0000
Standard Deviation: 145.4400
Variance: 21152.7996
=====
Elapsed Time: 0.005681 seconds
=====
```

## TC2

```
Reading data from 'TC2.txt'...

Successfully loaded 1977 numbers.
Calculating statistics...

=====
DESCRIPTIVE STATISTICS RESULTS
=====
Count of numbers: 1977
Mean: 250.7840
Median: 247.0000
Mode: 230.0000
Standard Deviation: 144.2078
Variance: 20795.8880
=====
Elapsed Time: 0.235433 seconds
=====
```

## TC3

```
(base) PS C:\Users\delrivero.m\01362368_Numero de actividadA4.2\P1\source> python computeStatistics.py TC3.txt
Reading data from 'TC3.txt'...

Successfully loaded 12624 numbers.
Calculating statistics...

=====
DESCRIPTIVE STATISTICS RESULTS
=====
Count of numbers: 12624
Mean: 249.7762
Median: 249.0000
Mode: 94.0000
Standard Deviation: 145.3236
Variance: 21118.9504
=====
Elapsed Time: 7.663255 seconds
=====
```

## TC4

```

(base) PS C:\Users\delrivero.m\01362368_Numero de actividadA4.2\P1\source> python computeStatistics.py tc4.txt
Reading data from 'tc4.txt'...

Successfully loaded 12624 numbers.
Calculating statistics...

=====
DESCRIPTIVE STATISTICS RESULTS
=====
Count of numbers: 12624
Mean: 149.0027
Median: 147.7500
Mode: 123.7500
Standard Deviation: 130.4196
Variance: 17009.2682
=====
Elapsed Time: 7.696065 seconds
=====

```

## TC5

```

(base) PS C:\Users\delrivero.m\01362368_Numero de actividadA4.2\P1\source> python computeStatistics.py tc5.TXT
Reading data from 'tc5.TXT'...

Warning: Invalid data at line 5: 'ABA' - Skipping
Warning: Invalid data at line 155: '23,45' - Skipping
Warning: Invalid data at line 232: '11;54' - Skipping
Warning: Invalid data at line 239: '11' - Skipping

Total invalid entries skipped: 4

Successfully loaded 307 numbers.
Calculating statistics...

=====
DESCRIPTIVE STATISTICS RESULTS
=====
Count of numbers: 307
Mean: 241.4951
Median: 241.0000
Mode: 393.0000
Standard Deviation: 145.7023
Variance: 21229.1724
=====
Elapsed Time: 0.004837 seconds
=====

```

## TC6

```

Results saved to 'StatisticsResults.txt'
(base) PS C:\Users\delrivero.m\01362368_Numero de actividadA4.2\P1\source> python computeStatistics.py tc6.TXT
Reading data from 'tc6.TXT'...

Successfully loaded 3000 numbers.
Calculating statistics...

=====
DESCRIPTIVE STATISTICS RESULTS
=====
Count of numbers: 3000
Mean: 187906599279774728192.0000
Median: 188000049965542998016.0000
Mode: No mode (all values appear once)
Standard Deviation: 107399951657667592192.0000
Variance: 11534749616069338239761958751339425038336.0000
=====
Elapsed Time: 0.439833 seconds
=====

```

## TC7

```

Results saved to 'StatisticsResults.txt'
(base) PS C:\Users\delrivero.m\01362368_Numero de actividadA4.2\P1\source> python computeStatistics.py tc7.TXT
Reading data from 'tc7.TXT'...

Warning: Invalid data at line 183: 'ABBA' - Skipping
Warning: Invalid data at line 229: 'ERROR' - Skipping

Total invalid entries skipped: 2

Successfully loaded 12767 numbers.
Calculating statistics...

=====
DESCRIPTIVE STATISTICS RESULTS
=====
Count of numbers: 12767
Mean: 247467395499714904064.0000
Median: 246640973074290016256.0000
Mode: No mode (all values appear once)
Standard Deviation: 144611310601233137664.0000
Variance: 20912431153806321107417444778947884613632.0000
=====
Elapsed Time: 8.303500 seconds
=====

Results saved to 'StatisticsResults.txt'

```

## Pylint result

```

(base) PS C:\Users\delrivero.m\01362368_Numero de actividadA4.2\P1\source> pylint .\computeStatistics.py
***** Module computeStatistics
computeStatistics.py:1:0: C0103: Module name "computeStatistics" doesn't conform to snake_case naming style (invalid-name)

-----
Your code has been rated at 9.93/10 (previous run: 9.93/10, +0.00)

```

## P2

### TC1

```

=====
NUMBER BASE CONVERTER
=====
Input file: TC1.txt
Output file: ConversionResults.txt
=====

Processing 200 items from 'TC1.txt'...
-----

CONVERSION RESULTS:
=====
Decimal:      6980368 | Binary: 11010101000001100010000 | Hexadecimal:      6A8310
Decimal:      5517055 | Binary: 10101000010111011111111 | Hexadecimal:      542EFF
Decimal:      1336159 | Binary: 101000110001101011111 | Hexadecimal:      14635F
Decimal:      6750185 | Binary: 1100110111111111101001 | Hexadecimal:      66FFE9
Decimal:      1771937 | Binary: 110110000100110100001 | Hexadecimal:      1B09A1
Decimal:       360952 | Binary:  1011000000111111000 | Hexadecimal:      581F8
Decimal:      5672561 | Binary: 10101101000111001110001 | Hexadecimal:      568E71
Decimal:       916583 | Binary: 11011111110001100111 | Hexadecimal:      DFC67
Decimal:      2700138 | Binary: 1010010011001101101010 | Hexadecimal:      29336A
Decimal:      9645053 | Binary: 10010011001010111111101 | Hexadecimal:      932BFD

... (180 more results) ...

```

```

... (180 more results) ...

Decimal:      5828308 | Binary: 10110001110111011010100 | Hexadecimal:      58EED4
Decimal:      8058535 | Binary: 11110101111011010100111 | Hexadecimal:      7AF6A7
Decimal:      9035191 | Binary: 10001001110111011011011 | Hexadecimal:      890DB7
Decimal:      7922103 | Binary: 11110001110000110110111 | Hexadecimal:      78E1B7
Decimal:      9366003 | Binary: 100011101110100111110011 | Hexadecimal:      8EE9F3
Decimal:      4555717 | Binary: 10001011000001111000101 | Hexadecimal:      4583C5
Decimal:      3526753 | Binary: 1101011101000001100001 | Hexadecimal:      35D061
Decimal:      3176815 | Binary: 1100000111100101101111 | Hexadecimal:      30796F
Decimal:       858440 | Binary: 11010001100101001000 | Hexadecimal:      D1948
Decimal:      2250854 | Binary: 1000100101100001100110 | Hexadecimal:      225866

```

#### STATISTICS

```

Total items processed: 200
Total errors: 0
Execution time: 0.003205 seconds

```

Results saved to 'ConversionResults.txt'

## TC2

```
(base) PS C:\Users\delrivero.m\01362368 Numero de actividadA4.2\P2\source> python convertNumbers.py TC2.txt
```

#### NUMBER BASE CONVERTER

```

Input file: TC2.txt
Output file: ConversionResults.txt

```

Processing 200 items from 'TC2.txt'...

#### CONVERSION RESULTS:

```

Decimal:      7116776 | Binary: 110110010010111111101000 | Hexadecimal:      6C97E8
Decimal:      1666340 | Binary: 110010110110100100100 | Hexadecimal:      196D24
Decimal:      8886983 | Binary: 100001111001101011000111 | Hexadecimal:      879AC7
Decimal:      839365 | Binary: 11001100111011000101 | Hexadecimal:      CCEC5
Decimal:      924280 | Binary: 11100001101001111000 | Hexadecimal:      E1A78
Decimal:      1026310 | Binary: 11111010100100000110 | Hexadecimal:      FA906
Decimal:      1615293 | Binary: 11000101001011011101 | Hexadecimal:      18A5BD
Decimal:      1063875 | Binary: 100000011101111000011 | Hexadecimal:      103BC3
Decimal:      679035 | Binary: 10100101110001111011 | Hexadecimal:      A5C7B
Decimal:      5201970 | Binary: 10011110110000000110010 | Hexadecimal:      4F6032

```

... (180 more results) ...

```

Decimal:      8052752 | Binary: 11110101110000000010000 | Hexadecimal:      7AE010
Decimal:      6359493 | Binary: 11000010000100111000101 | Hexadecimal:      6109C5
Decimal:      1967646 | Binary: 111100000011000011110 | Hexadecimal:      1E061E
Decimal:      6575052 | Binary: 11001000101001111001100 | Hexadecimal:      6453CC
Decimal:      2323342 | Binary: 1000110111001110001110 | Hexadecimal:      23738E
Decimal:      6735760 | Binary: 11001101100011110010000 | Hexadecimal:      66C790
Decimal:      8895858 | Binary: 100001111011110101110010 | Hexadecimal:      87BD72
Decimal:      4238091 | Binary: 10000001010101100001011 | Hexadecimal:      40AB0B
Decimal:      7093069 | Binary: 11011000011101101001101 | Hexadecimal:      6C3B4D
Decimal:       39 | Binary: 100111 | Hexadecimal:      27

```

#### STATISTICS

```

Total items processed: 200
Total errors: 0
Execution time: 0.002419 seconds

```

## TC3



## P3

TC1

```
=====
WORD FREQUENCY ANALYSIS RESULTS
=====

Total words processed: 100
Distinct words found: 99
Execution time: 0.0026 seconds

-----
WORD                                FREQUENCY
-----
conservative                        2
achievement                         1
adequate                           1
adventures                         1
anal                               1
```

TC2

```
=====
WORD FREQUENCY ANALYSIS RESULTS
=====
```

```
Total words processed: 184
Distinct words found: 144
Execution time: 0.0033 seconds
```

```
-----
WORD                                FREQUENCY
-----
amongst                             4
brass                               4
chain                               4
doc                                 4
filme                               4
holders                             4
inflation                           4
kingston                           4
lease                               4
monaco                             4
revenues                           4
targeted                           4
pre                                 3
wood                                3
advantages                          1
afternoon                          1
algebra                            1
-----
```

TC3



Total words processed: 500  
Distinct words found: 487  
Execution time: 0.0314 seconds

-----	
WORD	FREQUENCY
-----	
notice	3
blues	2
charity	2
copy	2
flood	2
hurt	2
pairs	2
pipe	2
pottery	2
reveals	2
suggestion	2
thumb	2
acquisition	1
advances	1
affects	1
aids	1
allergy	1
ambient	1
an	1
analyzed	1

TC4

Total words processed: 1000  
Distinct words found: 949  
Execution time: 0.1357 seconds

WORD	FREQUENCY
started	3
annual	2
benchmark	2
book	2
castle	2
charts	2
clients	2
coastal	2
confidential	2
consist	2
contains	2
crazy	2
data	2
ddr	2
detroit	2
diamonds	2
diseases	2
dramatically	2
earning	2
farm	2

TC5

=====

## WORD FREQUENCY ANALYSIS RESULTS

=====

Total words processed: 5000  
Distinct words found: 3750  
Execution time: 1.9026 seconds

WORD	FREQUENCY
kg	5
managed	5
pets	5
schools	5
wilderness	5
employers	4
explain	4
gps	4
keeping	4
loud	4
manufactured	4
margaret	4
nb	4
opens	4
passion	4
petersburg	4
products	4
published	4
qualities	4
recommends	4
relates	4
seasons	4
sentences	4
suggestions	4
terrorist	4
threats	4
toner	4
travelling	4
useful	4
webcams	4
worldcat	4
wrap	4
corpus	3
downtown	3
drinks	3
-	-

## Pylint

```
(base) PS C:\Users\delriviero.m\01362368_Numero de actividadA4.2\P3\source> pylint wordCount.py
***** Module wordCount
wordCount.py:1:0: C0103: Module name "wordCount" doesn't conform to snake_case naming style (invalid-name)

-----
Your code has been rated at 9.93/10 (previous run: 7.40/10, +2.53)
```