Programa 1

Verificando código con pylint

```
DEBUG CONSOLE OUTPUT
                                                                                                                                                                                                                              ▶ poetry + ∨ □
   Your code has been rated at 8.39/10
  ******** Module computeStatistics computeStatistics.py:9:0: C0301: Line too long (104/100) (line-too-long)
 computeStatistics.py:9:0: C0304: Line too long (104/100) (line-too-long)
computeStatistics.py:13:0: C0304: Final newline missing (missing-final-newline)
computeStatistics.py:1:0: C0104: Missing module docstring (missing-module-docstring)
computeStatistics.py:1:0: C0103: Module name "computeStatistics" doesn't conform to snake_case naming style (invalid-name)
computeStatistics.py:5:0: C0116: Missing function or method docstring (missing-function-docstring)
computeStatistics.py:5:0: R0914: Too many local variables (22/15) (too-many-locals)
computeStatistics.py:33:11: W0718: Catching too general exception Exception (broad-exception-caught)
computeStatistics.py:17:13: W1514: Using open without explicitly specifying an encoding (unspecified-encoding)
computeStatistics.py:78:9: N1514: Using open without explicitly specifying an encoding (unspecified-encoding)
computeStatistics.py:5:0: R0915: Too many statements (53/50) (too-many-statements)
   Your code has been rated at 8.21/10
  (p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1>
Your code has been rated at 9.44/10 (previous run: 8.21/10, +1.23)
(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> pylint computeStatistics.py
computeStatistics.py:34:0: (0304: final newline missing (missing-final-newline) computeStatistics.py:1:0: C0103: Module name "computeStatistics" doesn't conform to snake_case naming style (invalid-name)
computeStatistics.py:6:0: R0914: Too many local variables (22/15) (too-many-locals)
Your code has been rated at 9.44/10 (previous run: 9.44/10, +0.00)
(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> pylint computeStatistics.py
Your code has been rated at 10.00/10 (previous run: 9.44/10, +0.56)
(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1>
```

Corremos programa con TC1.txt

```
(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> python computeStatistics.py TC1.txt
Error in line 400: Invalid data '405s'
Descriptive Statistics Results:
    Mean: 241.91
    Median: 239.00
    Mode: 393.00
    Standard Deviation: 145.39
    Variance: 21139.29
    Invalid lines: 1
    Time elapsed: 0.0040 seconds

(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> []
```

Para intentar obtener los resultados dados por el tutor, corrijo el error

```
PROBLEMS DEBUG CONSOLE OUTPUT TERMINAL PORTS

Your code has been rated at 10.00/10 (previous run: 9.86/10, +0.14)

(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> python computeStatistics.py TC1.txt

Descriptive Statistics Results:

- Mean: 242.32

- Median: 239.50

- Mode: 393.00

- Standard Deviation: 145.44

- Variance: 21152.80

- Invalid lines: 0

- Time elapsed: 0.0092 seconds

(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1>
```

Corremos programa con TC2.txt

```
(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> python computeStatistics.py TC2.txt
Descriptive Statistics Results:
    Mean: 250.78
    Median: 247.00
    Mode: 230.00
    Standard Deviation: 144.21
    Variance: 20795.89
    Invalid lines: 0
    Time elapsed: 0.0163 seconds

(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1>
```

Corremos programa con TC3.txt

```
(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> python computeStatistics.py TC3.txt
Descriptive Statistics Results:
- Mean: 249.78
- Median: 249.00
- Mode: 94.00
- Standard Deviation: 145.32
- Variance: 21118.95
- Invalid lines: 0
- Time elapsed: 0.0239 seconds
```

Corremos programa con TC4.txt

```
PROBLEMS DEBUG CONSOLE OUTPUT TERMINAL PORTS

- Invalid lines: 0
- Time elapsed: 0.0239 seconds

(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> python computeStatistics.py TC4.txt
Descriptive Statistics Results:
- Mean: 149.00
- Median: 147.75
- Mode: 123.75
- Standard Deviation: 130.42
- Variance: 17009.27
- Invalid lines: 0
- Time elapsed: 0.0266 seconds
```

Corremos programa con TC5.txt

```
PROBLEMS DEBUG CONSOLE OUTPUT TERMINAL PORTS

- Time elapsed: 0.0266 seconds

(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> python computeStatistics.py TC5.txt

Error in line 5: Invalid data 'ABA'

Error in line 155: Invalid data '23,45'

Error in line 232: Invalid data '11,54'

Error in line 239: Invalid data '11'

Descriptive Statistics Results:
- Mean: 241.50
- Median: 241.60
- Median: 241.60
- Standard Deviation: 145.70
- Variance: 2129.17
- Invalid lines: 4
- Time elapsed: 0.0146 seconds
```

Corremos programa con TC6.txt

En el documento de respuestas la moda sale como nA sin embargo luego de evaluar la data y usar Excel para verificar podemos comprobar que si existe moda.

```
(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> python computeStatistics.py TC6.txt

Descriptive Statistics Results:
- Mean: 187966599279774728192.00
- Median: 188008049965542998016.00
- Mode: 374846462174394974208.00
- Standard Deviation: 107399951657667608576.00
- Variance: 115347496166669338239761958751339425038336.00
- Invalid lines: 0
- Time elapsed: 0.0169 seconds

(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> python computeStatistics.py TC5\sqrt{txt}
```

Corremos programa con TC6.txt

En el documento de respuestas la moda sale como nA sin embargo luego de evaluar la data y usar Excel para verificar podemos comprobar que si existe moda.

```
(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P1> python computeStatistics.py TC7.txt
Error in line 183: Invalid data 'ABBA'
Error in line 229: Invalid data 'ERROR'
Descriptive Statistics Results:
- Mean: 247467395499714904064.00
- Median: 246640973074290016256.00
- Mode: 49999408249715907600.00
- Standard Deviation: 144611310601233121280.00
- Variance: 20912431153806321107417444778947884613632.00
- Invalid lines: 2
- Time elapsed: 0.0377 seconds
```

Programa 2

Verificando código con pylint

```
(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P2> pylint convert_numbers.py

Your code has been rated at 10.00/10 (previous run: 9.84/10, +0.16)

(p1-py3.11) PS C:\Users\JulioRamos\Downloads\4.2.P1-errata\P2>
```

Cambiamos el nombre sugerido del archivo main a convert_numbers.py porque ese nombre sigue la normativa PEP-8, el sugerido para la tarea no.

TC1.txt

No se puede mostrar todo lo que imprimió la terminal pero esta es la parte final. Cabe mencionar que valores no coinciden con el documento de resultados dado por el tutor

porque ese esta realizado con otros valores en el documento TC1. .Sin embargo se usaron otras herramientas para comprobar respuestas.

```
Number: 4281218 | Binary: 10000010101001110000010 |
                                                   Hexadecimal: 415382
Number: 6558883 | Binary: 11001000001010010100011 | Hexadecimal: 6414A3
Number: 3852986 | Binary: 1110101100101010111010 | Hexadecimal: 3ACABA
Number: 6263187 | Binary: 101111111001000110010011 | Hexadecimal: 5F9193
Number: 5828308 | Binary: 1011000111011010100 | Hexadecimal: 58EED4
Number: 8058535 | Binary: 1111010111101010100111 | Hexadecimal: 7AF6A7
Number: 9035191 | Binary: 100010011101110110110111 | Hexadecimal: 89DDB7
Number: 7922103 | Binary: 11110001110000110110111 | Hexadecimal: 78E1B7
Number: 9366003 | Binary: 100011101110100111110011 | Hexadecimal: 8EE9F3
Number: 4555717 | Binary: 10001011000001111000101 | Hexadecimal: 4583C5
Number: 3526753 | Binary: 1101011101000001100001 | Hexadecimal: 35D061
Number: 3176815 | Binary: 1100000111100101101111 | Hexadecimal: 30796F
Number: 858440 | Binary: 11010001100101001000 | Hexadecimal: D1948
Number: 2250854 | Binary: 1000100101100001100110 | Hexadecimal: 225866
Execution Time: 0.012004 seconds
```

TC2.txt

No se puede mostrar todo lo que imprimió la terminal pero esta es la parte final. Cabe mencionar que valores no coinciden con el documento de resultados dado por el tutor porque ese esta realizado con otros valores en el documento TC2. .Sin embargo se usaron otras herramientas para comprobar respuestas.

```
PROBLEMS DEBUG CONSOLE OUTPUT
                                          TERMINAL
Number: 1372809 | Binary: 101001111001010001001 | Hexadecimal: 14F289
Number: 1327984 | Binary: 101000100001101110000 | Hexadecimal: 144370
Number: 9205087 | Binary: 100011000111010101011111 | Hexadecimal: 8C755F
Number: 6524241 | Binary: 11000111000110101010001 | Hexadecimal: 638D51
Number: 9316072 | Binary: 100011100010011011101000 | Hexadecimal: 8E26E8
Number: 127744 | Binary: 11111001100000000 | Hexadecimal: 1F300
Number: 8388820 | Binary: 1000000000000000110101000 | Hexadecimal: 8000D4
Number: 6883557 | Binary: 11010010000100011100101 | Hexadecimal: 6908E5
Number: 2291239 | Binary: 1000101111011000100111 | Hexadecimal: 22F627
Number: 3101270 | Binary: 10111101010010010110 | Hexadecimal: 2F5256
Number: 1382825 | Binary: 10101000110011010101 | Hexadecimal: 1519A9
Number: 9873376 | Binary: 1001011010100111111100000 | Hexadecimal: 96A7E0
Number: 6873500 | Binary: 1101000111000111001 | Hexadecimal: 68E19C
Number: 8185634 | Binary: 111110011100110010 | Hexadecimal: 7CE722
Number: 2464786 | Binary: 1001011001110000010010 | Hexadecimal: 259C12
Number: 8387154 | Binary: 11111111111101001010010 | Hexadecimal: 7FFA52
Number: 5581444 | Binary: 10101010010101010000100 | Hexadecimal: 552A84
Number: 8097911 | Binary: 11110111001000001110111 | Hexadecimal: 7B9077
Number: 8882527 | Binary: 100001111000100101011111 | Hexadecimal: 87895F
Number: 8941444 | Binary: 1000100001101111110000100 | Hexadecimal: 886F84
Number: 4942703 | Binary: 1001011011011011011111 | Hexadecimal: 4B6B6F
Number: 101144 | Binary: 11000101100011000 | Hexadecimal: 18B18
Number: 7471180 | Binary: 11100100000000001001100 | Hexadecimal: 72004C
Number: 1932131 | Binary: 111010111101101100011 | Hexadecimal: 1D7B63
Number: 8052752 | Binary: 11110101110000000010000 | Hexadecimal: 7AE010
Number: 6359493 | Binary: 1100001000100111000101 | Hexadecimal: 6109C5
Number: 1967646 | Binary: 111100000011000011110 | Hexadecimal: 1E061E
Number: 6575052 | Binary: 11001000101001111001100 | Hexadecimal: 6453CC
Number: 2323342 | Binary: 10001101110011110 | Hexadecimal: 23738E
Number: 6735760 | Binary: 11001101100011110010000 | Hexadecimal: 66C790
Number: 8895858 | Binary: 100001111011110101110010 | Hexadecimal: 87BD72
Number: 4238091 | Binary: 10000001010101100001011 | Hexadecimal: 40AB0B
Number: 7093069 | Binary: 11011000011101101001101 | Hexadecimal: 6C3B4D
Number: 39 | Binary: 100111 | Hexadecimal: 27
Execution Time: 0.011998 seconds
```

TC3.txt

No se puede mostrar todo lo que imprimió la terminal pero esta es la parte final. Cabe mencionar que valores no coinciden con el documento de resultados dado por el tutor porque ese esta realizado con otros valores en el documento TC3. Sin embargo se usaron otras herramientas para comprobar respuestas.

```
PROBLEMS
          DEBUG CONSOLE OUTPUT
                                   TERMINAL
                                             PORTS
Number: 36 | Binary: 100100 | Hexadecimal: 24
Number: 22 | Binary: 10110 | Hexadecimal: 16
Number: 27 | Binary: 11011 | Hexadecimal: 1B
Number: 31 | Binary: 11111 | Hexadecimal: 1F
Number: -47 | Binary: 11010001 | Hexadecimal: D1
Number: -43 | Binary: 11010101 | Hexadecimal: D5
Number: 0 | Binary: 0 | Hexadecimal: 0
Number: 27 | Binary: 11011 | Hexadecimal: 1B
Number: 30 | Binary: 11110 | Hexadecimal: 1E
Number: 12 | Binary: 1100 | Hexadecimal: C
Number: -15 | Binary: 11110001 | Hexadecimal: F1
Number: -19 | Binary: 11101101 | Hexadecimal: ED
Number: -42 | Binary: 11010110 | Hexadecimal: D6
Number: -37 | Binary: 11011011 | Hexadecimal: DB
Number: 31 | Binary: 11111 | Hexadecimal: 1F
Number: -10 | Binary: 11110110 | Hexadecimal: F6
Number: 18 | Binary: 10010 | Hexadecimal: 12
Number: 33 | Binary: 100001 | Hexadecimal: 21
Number: -15 | Binary: 11110001 | Hexadecimal: F1
Number: 17 | Binary: 10001 | Hexadecimal: 11
Number: 25 | Binary: 11001 | Hexadecimal: 19
Number: -25 | Binary: 11100111 | Hexadecimal: E7
Number: -5 | Binary: 11111011 | Hexadecimal: FB
Number: 33 | Binary: 100001 | Hexadecimal: 21
Number: -13 | Binary: 11110011 | Hexadecimal: F3
Number: 33 | Binary: 100001 | Hexadecimal: 21
Number: -10 | Binary: 11110110 | Hexadecimal: F6
Number: 47 | Binary: 101111 | Hexadecimal: 2F
Number: 47 | Binary: 101111 | Hexadecimal: 2F
Number: -13 | Binary: 11110011 | Hexadecimal: F3
Number: -32 | Binary: 11100000 | Hexadecimal: E0
Number: 1 | Binary: 1 | Hexadecimal: 1
Number: 1 | Binary: 1 | Hexadecimal: 1
Number: -25 | Binary: 11100111 | Hexadecimal: E7
Number: -33 | Binary: 11011111 | Hexadecimal: DF
Number: 16 | Binary: 10000 | Hexadecimal: 10
Number: 17 | Binary: 10001 | Hexadecimal: 11
Number: 4 | Binary: 100 | Hexadecimal: 4
Execution Time: 0.004001 seconds
```

TC4.txt

No se puede mostrar todo lo que imprimió la terminal pero esta es la parte final. Cabe mencionar que valores no coinciden con el documento de resultados dado por el tutor porque ese esta realizado con otros valores en el documento TC4. Sin embargo se usaron otras herramientas para comprobar respuestas.

```
PROBLEMS DEBUG CONSOLE OUTPUT
                                  TERMINAL
                                             PORTS
Number: 8 | Binary: 1000 | Hexadecimal: 8
Number: 34 | Binary: 100010 | Hexadecimal: 22
Number: 17 | Binary: 10001 | Hexadecimal: 11
Number: 49 | Binary: 110001 | Hexadecimal: 31
Number: 5 | Binary: 101 | Hexadecimal: 5
Number: 0 | Binary: 0 | Hexadecimal: 0
Number: 33 | Binary: 100001 | Hexadecimal: 21
Number: 12 | Binary: 1100 | Hexadecimal: C
Number: -6 | Binary: 11111010 | Hexadecimal: FA
Number: 27 | Binary: 11011 | Hexadecimal: 1B
Number: -4 | Binary: 11111100 | Hexadecimal: FC
Number: -38 | Binary: 11011010 | Hexadecimal: DA
Number: 26 | Binary: 11010 | Hexadecimal: 1A
Number: 49 | Binary: 110001 | Hexadecimal: 31
Number: 29 | Binary: 11101 | Hexadecimal: 1D
Number: 42 | Binary: 101010 | Hexadecimal: 2A
Number: -16 | Binary: 11110000 | Hexadecimal: F0
Number: 34 | Binary: 100010 | Hexadecimal: 22
Number: 20 | Binary: 10100 | Hexadecimal: 14
Number: 0 | Binary: 0 | Hexadecimal: 0
Number: 25 | Binary: 11001 | Hexadecimal: 19
Number: 45 | Binary: 101101 | Hexadecimal: 2D
Number: 3 | Binary: 11 | Hexadecimal: 3
Number: -46 | Binary: 11010010 | Hexadecimal: D2
Number: -46 | Binary: 11010010 | Hexadecimal: D2
Number: 29 | Binary: 11101 | Hexadecimal: 1D
Number: 33 | Binary: 100001 | Hexadecimal: 21
Number: 29 | Binary: 11101 | Hexadecimal: 1D
Number: 26 | Binary: 11010 | Hexadecimal: 1A
Number: -5 | Binary: 11111011 | Hexadecimal: FB
Number: -36 | Binary: 11011100 | Hexadecimal: DC
Number: 12 | Binary: 1100 | Hexadecimal: C
Number: 45 | Binary: 101101 | Hexadecimal: 2D
Number: -50 | Binary: 11001110 | Hexadecimal: CE
Number: 0 | Binary: 0 | Hexadecimal: 0
Number: -6 | Binary: 11111010 | Hexadecimal: FA
Execution Time: 0.002099 seconds
Invalid Entries: ABC, ERR, VAL
```

Programa 3

Cambiamos el nombre sugerido del archivo main a word_count.py porque ese nombre sigue la normativa PEP-8, el sugerido para la tarea no.

Verificando código con pylint

TC1.txt

```
PROBLEMS
          DEBUG CONSOLE
                          OUTPUT
                                              PORTS
                                   TERMINAL
nba: 1
newer: 1
nightmare: 1
nor: 1
oakland: 1
p: 1
password: 1
pct: 1
pens: 1
permission: 1
permissions: 1
peter: 1
photography: 1
pin: 1
potentially: 1
pubmed: 1
recorded: 1
regulatory: 1
rl: 1
scoring: 1
seats: 1
seed: 1
shadow: 1
shower: 1
significance: 1
sparc: 1
sure: 1
tab: 1
taxes: 1
tea: 1
teaches: 1
tions: 1
trained: 1
uni: 1
vagina: 1
wan: 1
webcast: 1
worse: 1
Execution Time: 0.012027 seconds
```

TC2.txt

```
DEBUG CONSOLE OUTPUT TERMINAL
remained: 1
rentals: 1
resort: 1 responsibilities: 1
returned: 1 revenues: 4
sectors: 1
serious: 1
sides: 1
sorry: 1 southampton: 1
steve: 1
stores: 1
str: 1
sweden: 1
table: 1
targeted: 4
tba: 1
teen: 1
textiles: 1
tiger: 1
touch: 1
turkish: 1
undo: 1
variety: 1
vessels: 1
vice: 1
violence: 1
way: 1
weight: 1
wood: 3
Execution Time: 0.021696 seconds
```

TC3.txt

```
two: 1
uc: 1
undergraduate: 1
underground: 1
unless: 1
unlikely: 1
usa: 1
used: 1
uses: 1
utils: 1
vagina: 1
validity: 1
vibrators: 1
victory: 1
virginia: 1
voice: 1
vs: 1
waiver: 1
wal: 1
walking: 1
want: 1
waste: 1
wave: 1
webshots: 1
widely: 1
williams: 1
windsor: 1
wma: 1
women: 1
wonder: 1
wooden: 1
works: 1
wrote: 1
ya: 1
you: 1
z: 1
zdnet: 1
Execution Time: 0.022511 seconds
```

TC4.txt

No se puede mostrar todo lo que imprimió la terminal pero esta es la parte final.

```
TERMINAL
wallpaper: 1
wang: 1
war: 1
warning: 1
warranties: 1
was: 1
washington: 1
watches: 1
wav: 1
weak: 1
weapons: 1
wearing: 1
website: 1
wedding: 1
weekly: 1
wild: 1
win: 1
winston: 1
wishlist: 1
with: 1
words: 1
work: 1
worker: 1
worry: 1
would: 1
wound: 1
wv: 1
y: 1
yellow: 1
yet: 1
yourself: 1
yu: 1
yukon: 1
z: 1
za: 2
zen: 1
zimbabwe: 2
Execution Time: 0.020062 seconds
```

TC5.txt

```
wrote: 2
wt: 1
wu: 1
ww: 1
www: 3
wx: 1
x: 2
xerox: 1
xhtml: 1
xml: 2
yamaha: 1
yang: 1
yarn: 3
ye: 1
yea: 1
yeah: 1
year: 1
yearly: 1
yeast: 1
yemen: 1
yen: 1
yesterday: 2
yield: 2
yields: 1
yn: 1
yo: 2
you: 1
younger: 1
yourself: 1
yr: 2
yrs: 3
yugoslavia: 1
yukon: 1
zambia: 1
zdnet: 2
zealand: 1
zen: 1
Execution Time: 0.027538 seconds
```