In [1]:
```
import csv
import os
```

In [38]:
```
# Imprimir las primeras 50 líneas

# Abre el archivo CSV
with open('Height of Male and Female by Country 2022.csv', newline='') as rows50:
    csvreader = csv.reader(rows50)

    # Leemos e imprimimos las primeras 50 líneas

    for i, row in enumerate(csvreader):
        print(row)
        if i == 49:  # si se cumple la condicion, se cierra el bucle
            break
```

```
['Rank', 'Country Name', 'Male Height in Cm', 'Female Height in Cm', 'Male Height in Ft', 'Female Height in Ft']
['1', 'Netherlands', '183.78', '170.36', '6.03', '5.59']
['2', 'Montenegro', '183.30', '169.96', '6.01', '5.58']
['3', 'Estonia', '182.79', '168.66', '6.00', '5.53']
['4', 'Bosnia and Herzegovina', '182.47', '167.47', '5.99', '5.49']
['5', 'Iceland', '182.10', '168.91', '5.97', '5.54']
['6', 'Denmark', '181.89', '169.47', '5.97', '5.56']
['7', 'Czech Republic', '181.19', '167.96', '5.94', '5.51']
['8', 'Latvia', '181.17', '168.81', '5.94', '5.54']
['9', 'Slovakia', '181.02', '167.12', '5.94', '5.48']
['10', 'Slovenia', '180.98', '167.20', '5.94', '5.49']
['11', 'Ukraine', '180.98', '166.62', '5.94', '5.47']
['12', 'Croatia', '180.76', '166.80', '5.93', '5.47']
['13', 'Serbia', '180.74', '168.29', '5.93', '5.52']
['14', 'Lithuania', '180.72', '167.63', '5.93', '5.50']
['15', 'Poland', '180.69', '165.78', '5.93', '5.44']
['16', 'Finland', '180.57', '166.48', '5.92', '5.46']
['17', 'Norway', '180.48', '166.45', '5.92', '5.46']
['18', 'Sweden', '180.46', '166.67', '5.92', '5.47']
['19', 'Germany', '180.28', '166.18', '5.91', '5.45']
['20', 'Dominica', '180.15', '166.89', '5.91', '5.48']
['21', 'Bermuda', '179.72', '166.11', '5.90', '5.45']
['27', 'Andorra', '178.84', '165.53', '5.87', '5.43']
['28', 'Antigua and Barbuda', '178.84', '165.72', '5.87', '5.44']
['29', 'Australia', '178.77', '164.67', '5.87', '5.40']
['30', 'Canada', '178.75', '164.73', '5.86', '5.40']
['31', 'Switzerland', '178.73', '164.33', '5.86', '5.39']
['32', 'Grenada', '178.70', '165.99', '5.86', '5.45']
['33', 'Belarus', '178.69', '166.93', '5.86', '5.48']
['34', 'France', '178.60', '164.49', '5.86', '5.40']
['35', 'Austria', '178.52', '166.93', '5.86', '5.48']
['36', 'Luxembourg', '178.46', '165.07', '5.86', '5.42']
['37', 'Cook Islands', '178.32', '167.31', '5.85', '5.49']
['38', 'French Polynesia', '178.32', '166.52', '5.85', '5.46']
['39', 'United Kingdom', '178.21', '163.94', '5.85', '5.38']
['40', 'Romania', '177.82', '164.73', '5.83', '5.40']
['41', 'New Zealand', '177.72', '164.66', '5.83', '5.40']
['42', 'Saint Vincent and the Grenadines', '177.49', '165.30', '5.82', '5.42']
['43', 'Niue', '177.19', '167.03', '5.81', '5.48']
['44', 'American Samoa', '177.09', '167.55', '5.81', '5.50']
['45', 'Barbados', '177.03', '165.66', '5.81', '5.44']
['46', 'Jamaica', '176.97', '164.32', '5.81', '5.39']
['47', 'United States', '176.94', '163.31', '5.81', '5.36']
['48', 'Tunisia', '176.85', '161.69', '5.80', '5.30']
['49', 'Russia', '176.65', '164.52', '5.80', '5.40']
```

In [44]:
```
with open('Height of Male and Female by Country 2022.csv', 'r') as file:
    csvreader = csv.reader(file)
    rows = []
    for row in csvreader:
        rows.append(row)

print(rows)
```

```
[['Rank', 'Country Name', 'Male Height in Cm', 'Female Height in Cm', 'Male Height in Ft', 'Female Height in Ft'], ['1', 'Nethe
rlands', '183.78', '170.36', '6.03', '5.59'], ['2', 'Montenegro', '183.30', '169.96', '6.01', '5.58'], ['3', 'Estonia', '182.7
9', '168.66', '6.00', '5.53'], ['4', 'Bosnia and Herzegovina', '182.47', '167.47', '5.99', '5.49'], ['5', 'Iceland', '182.10',
'168.91', '5.97', '5.54'], ['6', 'Denmark', '181.89', '169.47', '5.97', '5.56'], ['7', 'Czech Republic', '181.19', '167.96',
'5.94', '5.51'], ['8', 'Latvia', '181.17', '168.81', '5.94', '5.54'], ['9', 'Slovakia', '181.02', '167.12', '5.94', '5.48'],
['10', 'Slovenia', '180.98', '167.20', '5.94', '5.49'], ['11', 'Ukraine', '180.98', '166.62', '5.94', '5.47'], ['12', 'Croati
a', '180.76', '166.80', '5.93', '5.47'], ['13', 'Serbia', '180.74', '168.29', '5.93', '5.52'], ['14', 'Lithuania', '180.72', '1
67.63', '5.93', '5.50'], ['15', 'Poland', '180.69', '165.78', '5.93', '5.44'], ['16', 'Finland', '180.57', '166.48', '5.92',
'5.46'], ['17', 'Norway', '180.48', '166.45', '5.92', '5.46'], ['18', 'Sweden', '180.46', '166.67', '5.92', '5.47'], ['19', 'Ge
rmany', '180.28', '166.18', '5.91', '5.45'], ['20', 'Dominica', '180.15', '166.89', '5.91', '5.48'], ['21', 'Bermuda', '179.7
2', '166.11', '5.90', '5.45'], ['22', 'Puerto Rico', '179.48', '163.06', '5.89', '5.35'], ['23', 'Greece', '179.26', '165.81',
'5.88', '5.44'], ['24', 'Belgium', '179.09', '163.40', '5.88', '5.36'], ['25', 'Ireland', '179.04', '164.50', '5.87', '5.40'],
['26', 'Lebanon', '178.96', '163.67', '5.87', '5.37'], ['27', 'Andorra', '178.84', '165.53', '5.87', '5.43'], ['28', 'Antigua a
nd Barbuda', '178.84', '165.72', '5.87', '5.44'], ['29', 'Australia', '178.77', '164.67', '5.87', '5.40'], ['30', 'Canada', '17
8.75', '164.73', '5.86', '5.40'], ['31', 'Switzerland', '178.73', '164.33', '5.86', '5.39'], ['32', 'Grenada', '178.70', '165.9
9', '5.86', '5.45'], ['33', 'Belarus', '178.69', '166.93', '5.86', '5.48'], ['34', 'France', '178.60', '164.49', '5.86', '5.4
0'], ['35', 'Austria', '178.52', '166.93', '5.86', '5.48'], ['36', 'Luxembourg', '178.46', ...], ['37', 'C
ook Islands', '178.32', '167.31', '5.85', '5.49'], ['38', 'French Polynesia', '178.32', '16...9', 'Unit
ed Kingdom', '178.21', '163.94', '5.85', '5.38'], ['40', 'Romania', '177.82', '164.73', '5...ealand',
```

In [16]:
```
# Calcular la media, mínima y máxima altura de hombres y mujeres del data set completo

from statistics import mean
import numpy as np
```

In [45]:
```
alturas = np.array(rows)
```

In [47]:
```
# filtro de altura hombres
altura_hombres = alturas[:,2]
altura_hombres
```

Out[47]:
```
array(['Male Height in Cm', '183.78', '183.30', '182.79', '182.47',
       '182.10', '181.89', '181.19', '181.17', '181.02', '180.98',
       '180.98', '180.76', '180.74', '180.72', '180.69', '180.57',
       '180.48', '180.46', '180.28', '180.15', '179.72', '179.48',
       '179.26', '179.09', '179.04', '178.96', '178.84', '178.84',
       '178.77', '178.75', '178.73', '178.70', '178.69', '178.60',
       '178.52', '178.46', '178.32', '178.32', '178.21', '177.82',
       '177.72', '177.49', '177.19', '177.09', '177.03', '176.97',
       '176.94', '176.85', '176.65', '176.59', '176.43', '176.43',
       '176.39', '176.36', '176.35', '176.18', '176.11', '176.06',
       '176.03', '175.98', '175.98', '175.90', '175.73', '175.66',
       '175.62', '175.59', '175.52', '175.50', '175.11', '175.05',
       '175.04', '175.02', '174.96', '174.84', '174.83', '174.76',
       '174.69', '174.65', '174.57', '174.51', '174.42', '174.42',
       '174.40', '174.38', '174.37', '174.37', '174.32', '174.17',
       '174.08', '174.07', '174.04', '174.00', '173.98', '173.84',
```

In [83]:
```
cadena_sin_deci = altura_hombres
althombre_sin_deci_valida = [cadena.split('.')[0] for cadena in cadena_sin_deci if cadena.replace('.', '').isdigit()]

# Convertir las cadenas a enteros
althombre_sin_deci_int = [int(numeric_string) for numeric_string in althombre_sin_deci_valida]

print(althombre_sin_deci_int)
```

```
[183, 183, 182, 182, 182, 181, 181, 181, 181, 180, 180, 180, 180, 180, 180, 180, 180, 180, 180, 180, 179, 179, 179, 179, 179, 1
78, 178, 178, 178, 178, 178, 178, 178, 178, 178, 178, 178, 178, 178, 178, 177, 177, 177, 177, 177, 177, 176, 176, 176, 176, 176, 17
6, 176, 176, 176, 176, 176, 176, 176, 176, 175, 175, 175, 175, 175, 175, 175, 175, 175, 175, 175, 175, 175, 175, 174, 174, 174, 174,
174, 174, 174, 174, 174, 174, 174, 174, 174, 174, 174, 174, 174, 174, 174, 174, 173, 173, 173, 173, 173, 173, 173, 173, 173, 17
3, 173, 173, 173, 172, 172, 172, 172, 172, 172, 172, 172, 171, 171, 171, 171, 171, 171, 171, 171, 171, 171, 171, 170, 170, 170,
170, 170, 170, 170, 170, 170, 170, 170, 170, 170, 170, 170, 170, 170, 170, 169, 169, 169, 169, 169, 169, 169, 169, 169, 16
8, 168, 168, 168, 168, 168, 168, 168, 168, 168, 168, 168, 168, 168, 168, 168, 167, 167, 167, 167, 167, 167, 167, 167, 166, 166, 166,
166, 166, 166, 166, 166, 165, 165, 165, 165, 165, 165, 165, 165, 164, 164, 164, 164, 163, 163, 162, 160]
```

In [80]:
```
# filtro de altura mujeres

altura_mujeres = alturas[:,3]
altura_mujeres
```

Out[80]:
```
array(['Female Height in Cm', '170.36', '169.96', '168.66', '167.47',
       '168.91', '169.47', '167.96', '168.81', '167.12', '167.20',
       '166.62', '166.80', '168.29', '167.63', '165.78', '166.48',
       '166.45', '166.67', '166.18', '166.89', '166.11', '163.06',
       '165.81', '163.40', '164.50', '163.67', '165.53', '165.72',
       '164.67', '164.73', '164.33', '165.99', '166.93', '164.49',
       '166.93', '165.07', '167.31', '166.52', '163.94', '164.73',
       '164.66', '165.30', '167.03', '167.55', '165.66', '164.32',
       '163.31', '161.69', '164.52', '162.55', '165.52', '160.88',
       '162.56', '161.80', '161.18', '163.92', '162.03', '166.08',
       '163.38', '162.22', '163.24', '162.47', '162.41', '163.46',
       '161.18', '162.96', '163.23', '161.74', '166.08', '161.28',
       '162.35', '161.99', '160.10', '159.46', '160.62', '161.22',
       '161.22', '161.21', '160.88', '162.26', '161.81', '163.82',
       '163.46', '162.95', '162.83', '161.23', '161.56', '164.58',
       '160.53', '162.23', '160.36', '161.37', '164.28', '161.40',
       '159.76', '158.75', '162.78', '159.85', '160.13', '160.04',
       '160.70', '161.30', '160.72', '162.06', '158.94', '159.42',
       '158.29', '160.55', '160.58', '159.57', '160.41', '160.36',
       '158.50', '161.33', '157.96', '162.12', '158.44', '160.20',
       '159.38', '159.42', '158.14', '163.57', '158.78', '159.86',
       '160.29', '159.82', '158.75', '159.85', '159.89', '156.39',
       '158.84', '159.52', '157.58', '158.12', '160.05', '159.43',
```

In [84]:
```
cadena_sin_decimal = altura_mujeres
altmujer_sin_decimal_valida = [cadena.split('.')[0] for cadena in cadena_sin_decimal if cadena.replace('.', '').isdigit()]

# Convertir las cadenas válidas a enteros
altmujer_sin_decimal_int = [int(numeric_string) for numeric_string in altmujer_sin_decimal_valida]

print(altmujer_sin_decimal_int)
```

```
[170, 169, 168, 167, 168, 169, 167, 168, 167, 167, 166, 166, 168, 167, 165, 166, 166, 166, 166, 166, 166, 163, 165, 163, 164, 1
63, 165, 165, 164, 164, 164, 165, 166, 164, 166, 165, 167, 166, 163, 164, 164, 165, 167, 167, 165, 164, 163, 161, 164, 162, 16
5, 160, 162, 161, 161, 163, 162, 166, 163, 162, 163, 162, 162, 163, 161, 162, 163, 161, 166, 161, 162, 161, 160, 159, 160, 161,
161, 161, 160, 162, 161, 163, 163, 162, 162, 161, 161, 164, 160, 162, 160, 161, 164, 161, 159, 158, 162, 159, 160, 160, 160, 16
1, 160, 162, 158, 159, 158, 160, 160, 159, 160, 160, 158, 161, 157, 162, 158, 160, 159, 159, 158, 163, 158, 159, 160, 159, 158,
159, 159, 156, 158, 159, 157, 158, 160, 159, 159, 158, 157, 159, 158, 159, 161, 155, 160, 158, 155, 159, 157, 158, 157, 159, 15
8, 157, 158, 156, 156, 158, 158, 158, 161, 160, 158, 158, 158, 155, 155, 156, 154, 156, 157, 155, 154, 155, 155, 156, 154, 154,
155, 157, 154, 154, 156, 156, 160, 156, 154, 154, 154, 153, 152, 154, 152, 150, 155, 156, 156, 153, 152]
```

In [85]:
```
# obtener meadia, max y min de altura de hombres del data set completo

mean_alt_hombres = mean(althombre_sin_deci_int)
max_alt_hombres = max(althombre_sin_deci_int)
min_alt_hombres = min(althombre_sin_deci_int)
```

In [92]:
```
# imprimir los resultados

print('En promedio, la altura del conjunto de datos de los hombres es de:', int(mean_alt_hombres),'cm')
print('La altura maxima del conjunto de datos de los hombres es:', int(max_alt_hombres), 'cm')
print('La altura minima del conjunto de datos de los hombres es:', int(min_alt_hombres), 'cm')
```

```
En promedio, la altura del conjunto de datos de los hombres es de: 172 cm
La altura maxima del conjunto de datos de los hombres es: 183 cm
La altura minima del conjunto de datos de los hombres es: 160 cm
```

In [89]:
```
# obtener meadia, max y min de altura de mujeres del data set completo

mean_alt_mujeres = mean(altmujer_sin_decimal_int)
max_alt_mujeres = max(altmujer_sin_decimal_int)
min_alt_mujeres = min(altmujer_sin_decimal_int)
```

In [91]:
```
# imprimir los resultados

print('En promedio, la altura del conjunto de datos de las mujeres es de:', int(mean_alt_mujeres),'cm')
print('La altura maxima del conjunto de datos de las muejeres es:', int(max_alt_mujeres), 'cm')
print('La altura minima del conjunto de datos de las mujeres es:', int(min_alt_mujeres), 'cm')
```

```
En promedio, la altura del conjunto de datos de las mujeres es de: 160 cm
La altura maxima del conjunto de datos de las muejeres es: 170 cm
La altura minima del conjunto de datos de las mujeres es: 150 cm
```

In [116]:
```
# Obtener la data de alturas de su país de origen

print(rows[139])
```

```
['139', 'Mexico', '170.29', '157.90', '5.59', '5.18']
```