

リスト 6.2.2 重回帰分析用データ入力モジュール readdataMR.py (訂正版)

```
import csv
```

```
def ReadData_lst():
```

```
    """
```

```
        Data set in a List object
```

```
    """
```

```
    RawData = [ ['City', 'Temperature', 'Latitude', 'West_Longitude'],
                 ['Boston', 14, 42.4, 71.1],
                 ['Washington', 18, 38.9, 77.0],
                 ['Miami', 33, 25.8, 80.2],
                 ['Detroit', 13, 42.3, 83.0],
                 ['Atlanta', 22, 33.7, 84.4],
                 ['Chicago', 15, 41.9, 87.6],
                 ['Houston', 32, 29.8, 95.4],
                 ['Oklahoma City', 21, 35.5, 97.5],
                 ['Denver', 16, 39.7, 105.0],
                 ['Los Angeles', 23, 34.1, 118.2],
                 ['San Francisco', 19, 37.8, 122.4],
                 ['Seattle', 23, 47.6, 122.3]
               ]
```

```
    file_name = input('Output file name = ')
```

```
    f_out = open(file_name, 'w')
```

```
    return RawData, f_out, file_name
```

```
def ReadData_txt():
```

```
    """
```

```
        Data set in a text file
```

```
    """
```

```
    f_in_nm = input('Input data file = ')
```

```
    f_in = open(f_in_nm, 'r')
```

```
    f_data = f_in.readlines()
```

```
    pos = 0
```

```
    while True:
```

```
        if len(f_data[pos]) > 0:
```

```
            if f_data[pos][0] == '/':
```

```
                pos += 1
```

```
                break
```

```
        pos += 1
```

```
    RawData = []
```

```
    ck = 0
```

```
    while True:
```

```
        if f_data[pos][0] == '/':
```

```
            break
```

```
        if ck == 0:
```

```
            t_str = f_data[pos].split()
```

```
            RawData.append(t_str)
```

```
            ck = 1
```

```
        else:
```

```
            t_str = f_data[pos].split()
```

```
            temp_d = []
```

```

        for i in range(len(t_str)):
            if i == 0:
                temp_d.append(t_str[0])
            else:
                temp_d.append(float(t_str[i]))
        RawData.append(temp_d)
    pos += 1

file_name = input('Output file name = ')
f_out = open(file_name, 'w')
f_out.write('Input data = {}\n'.format(f_in_nm))

return RawData, f_out, file_name

```

```
def ReadData_csv():
```

```

    """
    Data set in a csv file
    """
    f_in_nm = input('Input data file (*.csv) = ')
    with open(f_in_nm, 'r') as f:
        csv_data = [d for d in csv.reader(f)]

    RawData = []
    for i in range(len(csv_data)):
        if i == 0:
            # Labels of variables
            RawData.append(csv_data[i])
        else:
            # Case label, and data values
            temp_d = []
            for j in range(len(csv_data[i])):
                if j == 0:
                    temp_d.append(csv_data[i][j])
                else:
                    temp_d.append(float(csv_data[i][j]))
            RawData.append(temp_d)

    file_name = input('Output file name = ')
    f_out = open(file_name, 'w')
    f_out.write('Input data = {}\n'.format(f_in_nm))

    return RawData, f_out, file_name

```