Code Decomposition and Modularity

Analytics Vidhya

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- Easier to test and debug code

Modular Code

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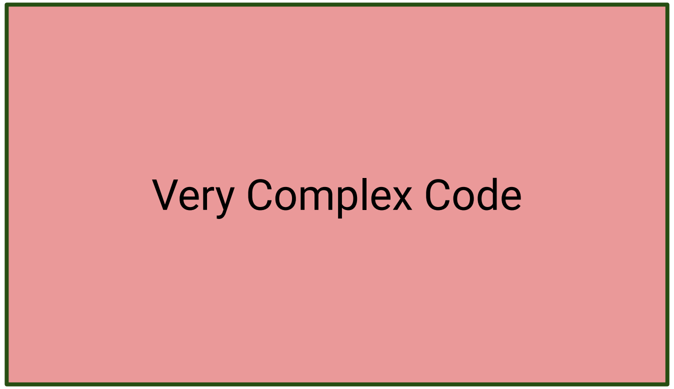

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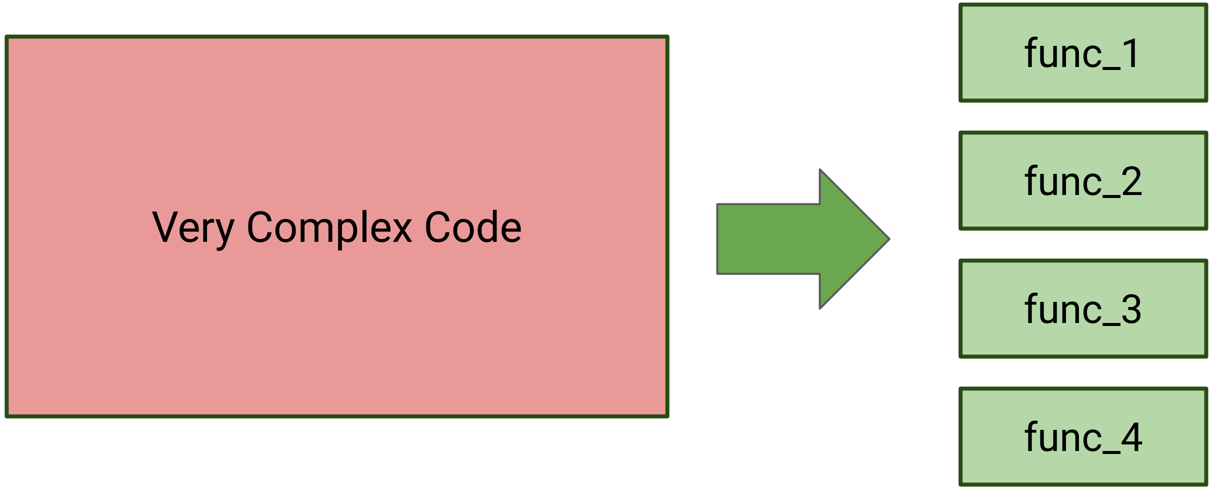

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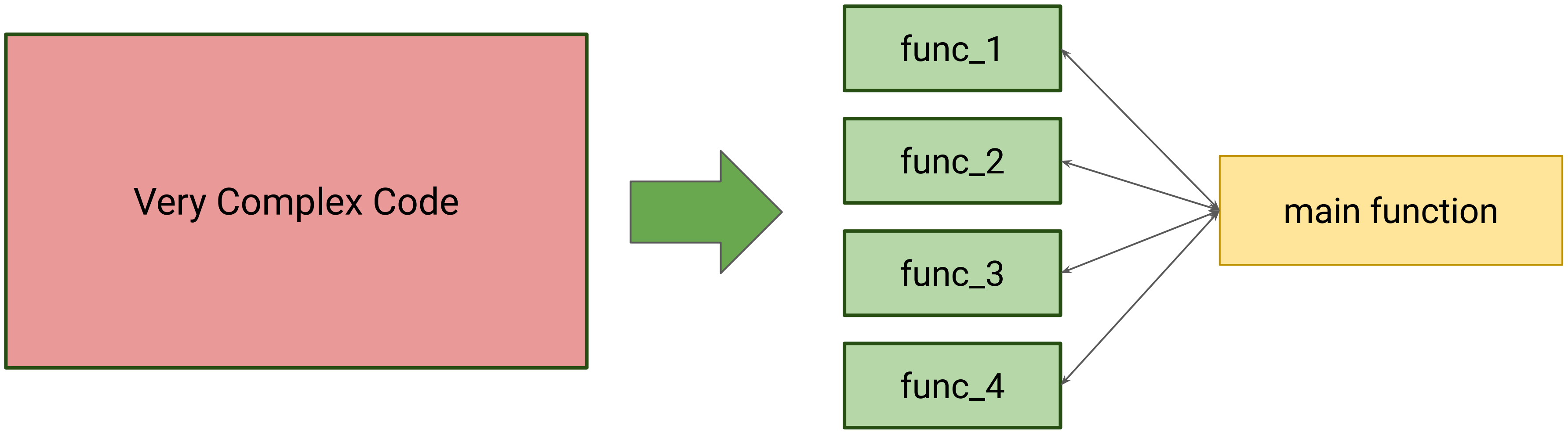

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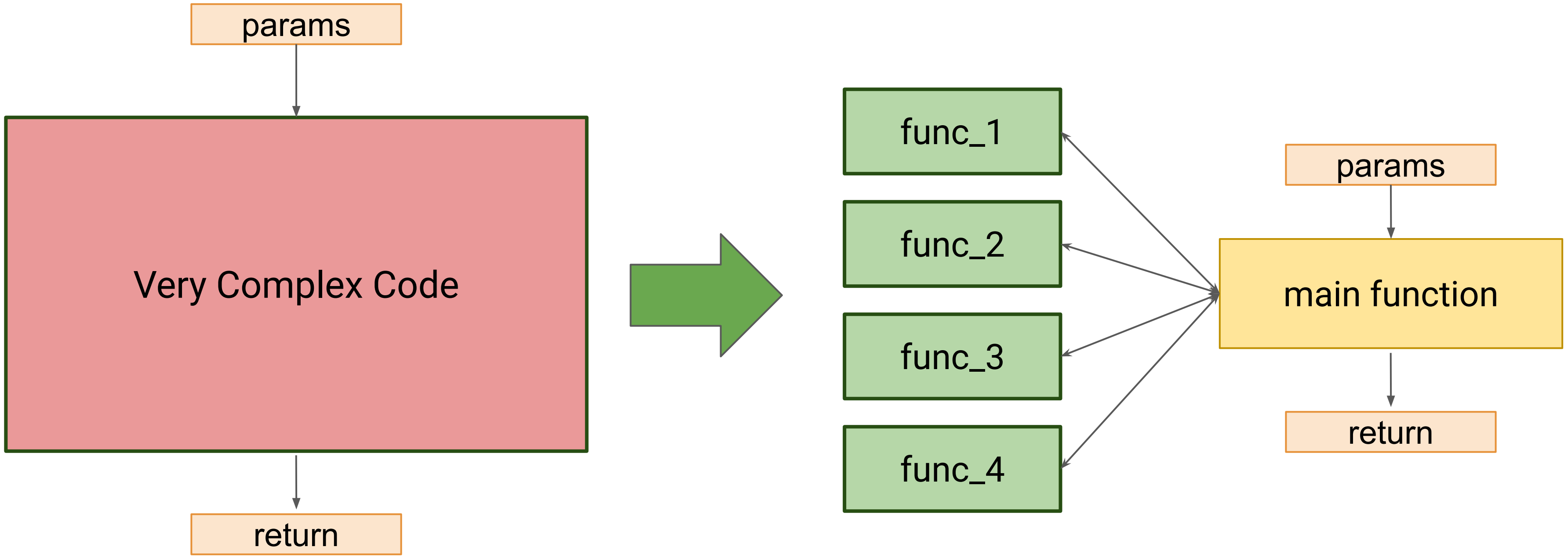

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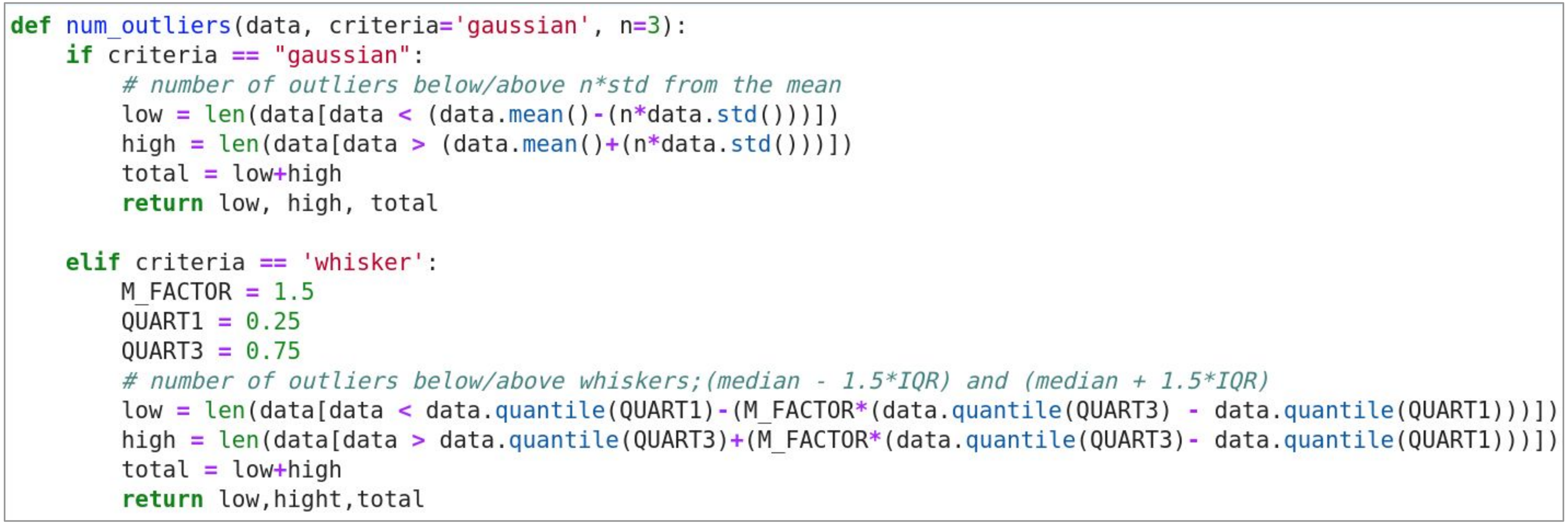
Decomposition of Code



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def num_outliers(data, criteria='gaussian', n=3):
    if criteria == "gaussian":
        # number of outliers below/above n*std from the mean
        low = len(data[data < (data.mean()-(n*data.std()))])
        high = len(data[data > (data.mean()+(n*data.std()))])
        total = low+high
        return low, high, total

    elif criteria == 'whisker':
        M_FACTOR = 1.5
        QUART1 = 0.25
        QUART3 = 0.75
        # number of outliers below/above whiskers;(median - 1.5*IQR) and (median + 1.5*IQR)
        low = len(data[data < data.quantile(QUART1)-(M_FACTOR*(data.quantile(QUART3) - data.quantile(QUART1)))])
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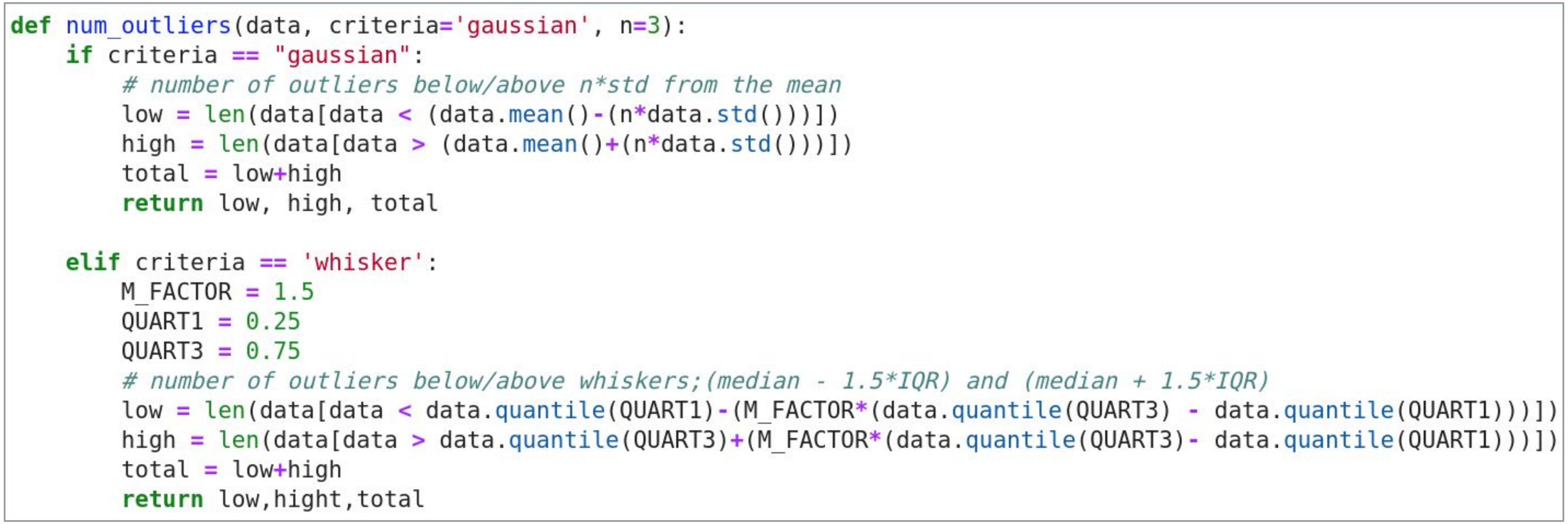

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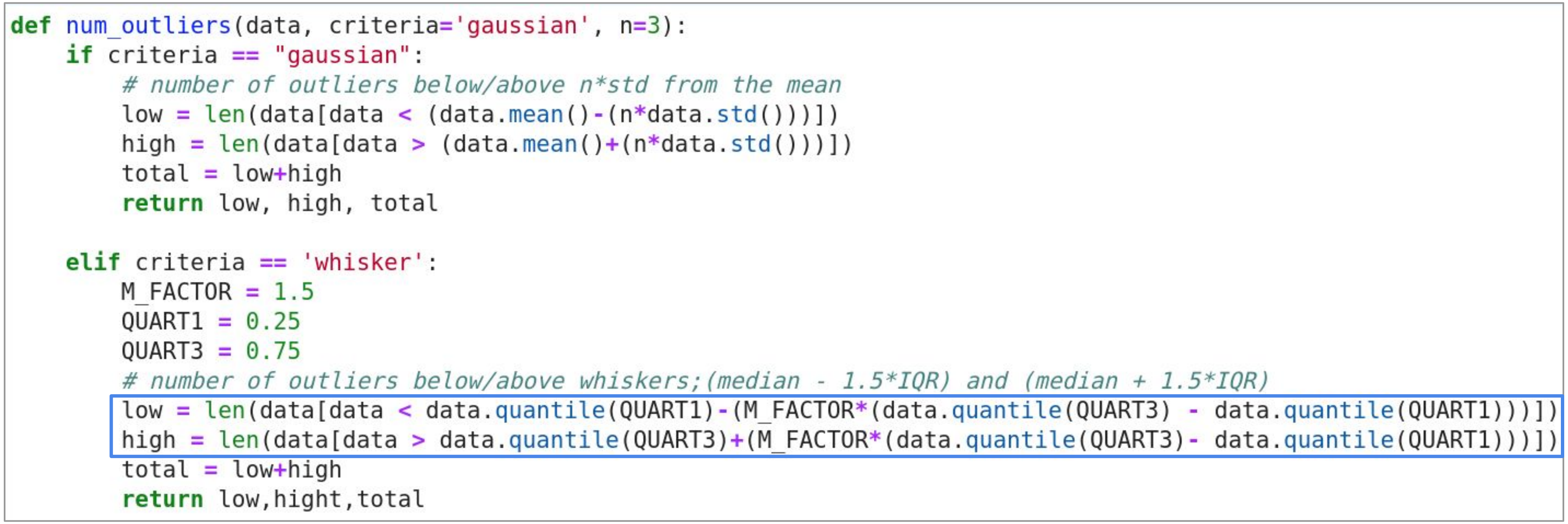

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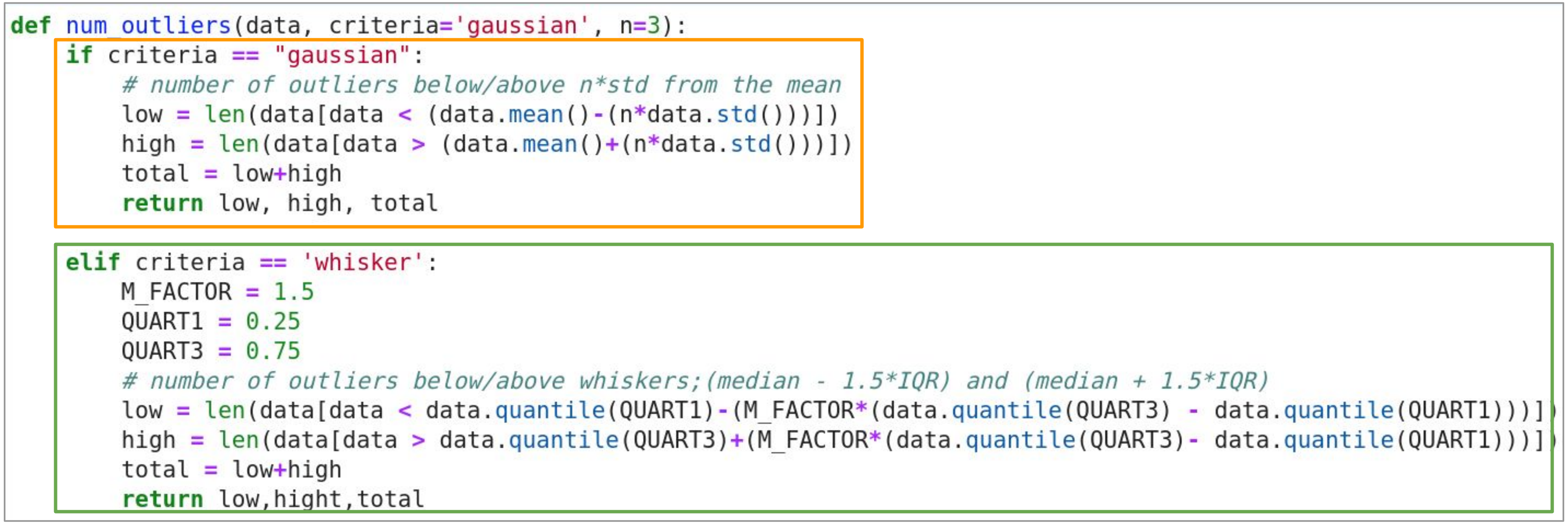

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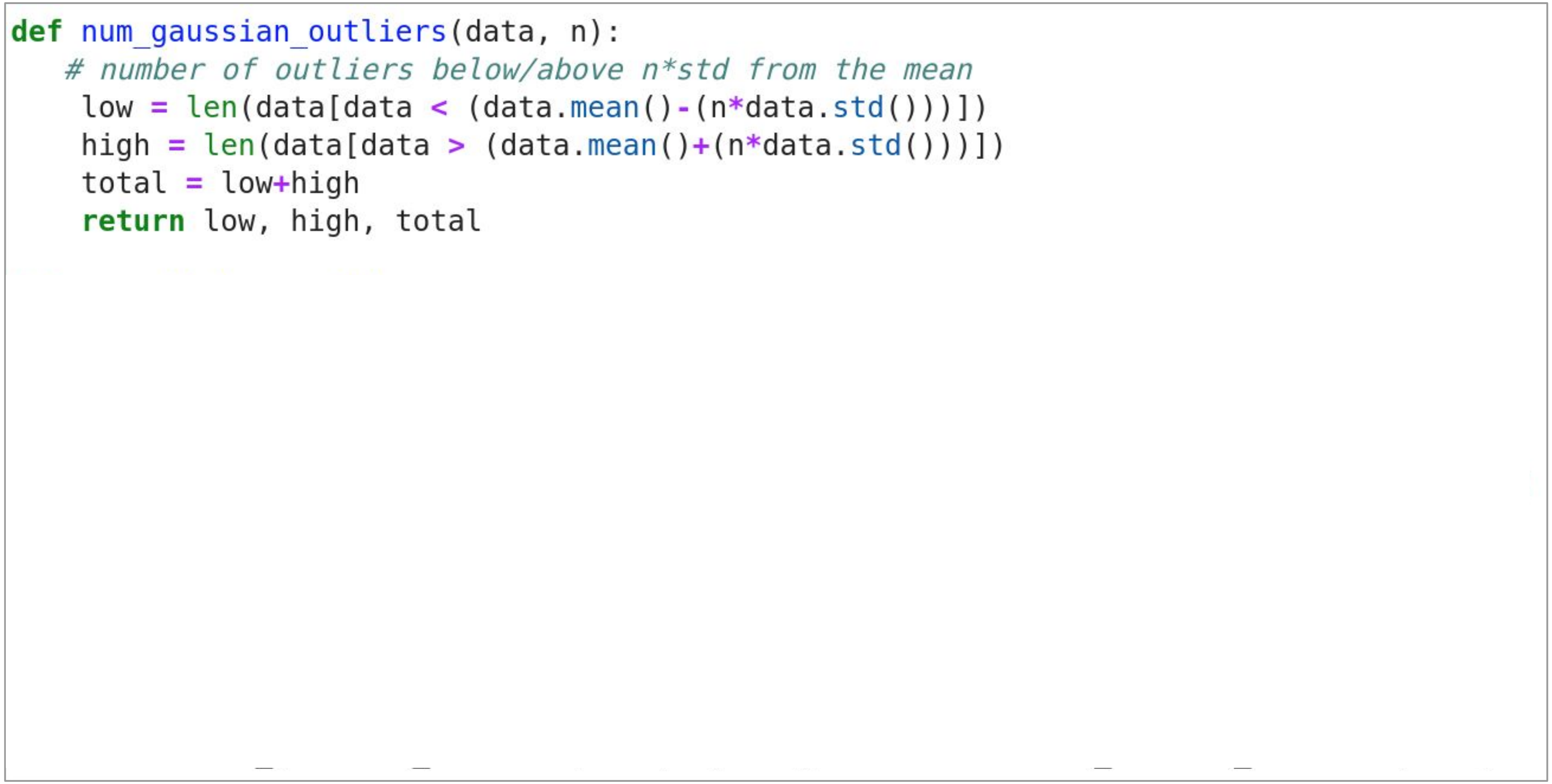

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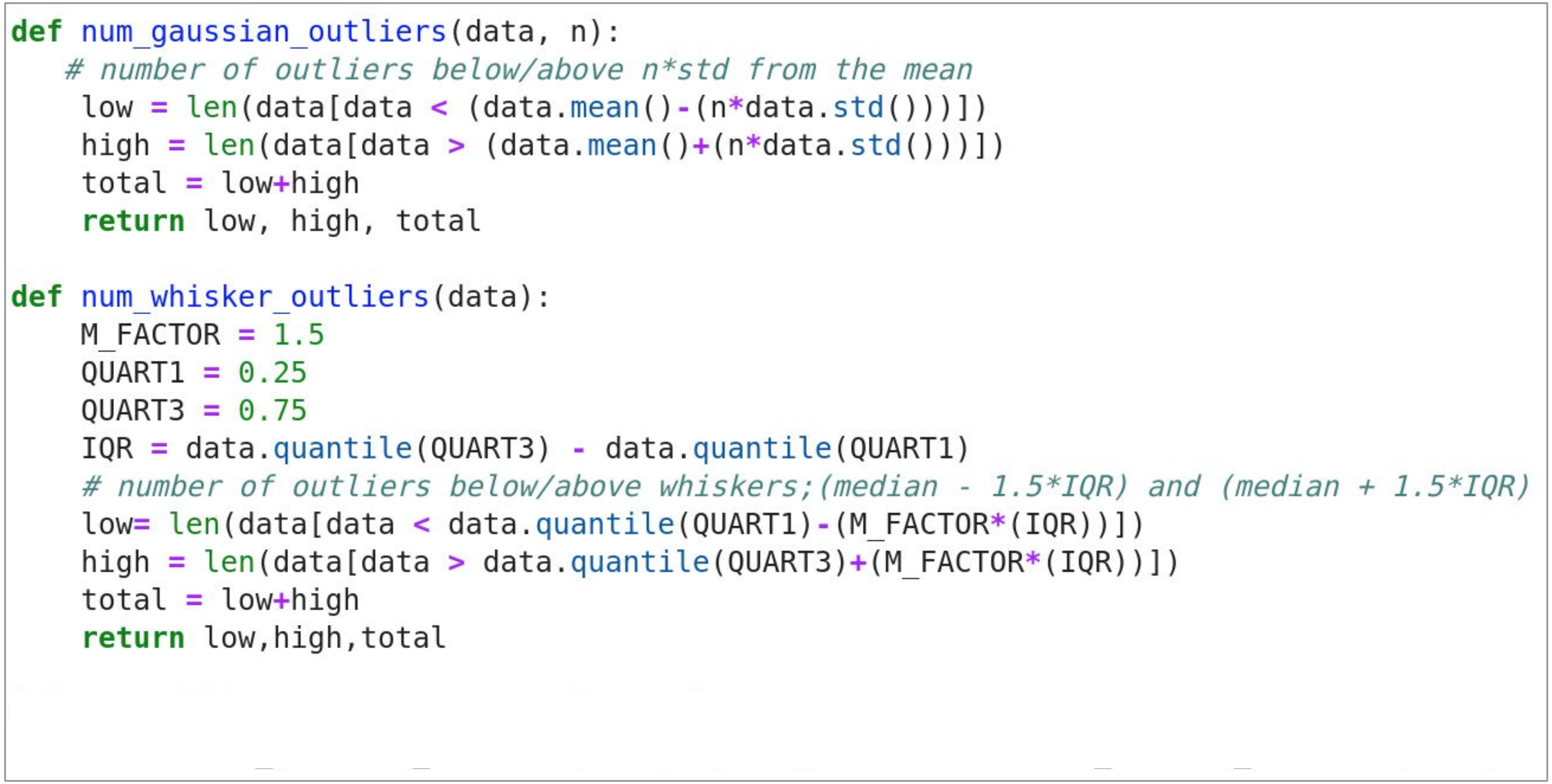

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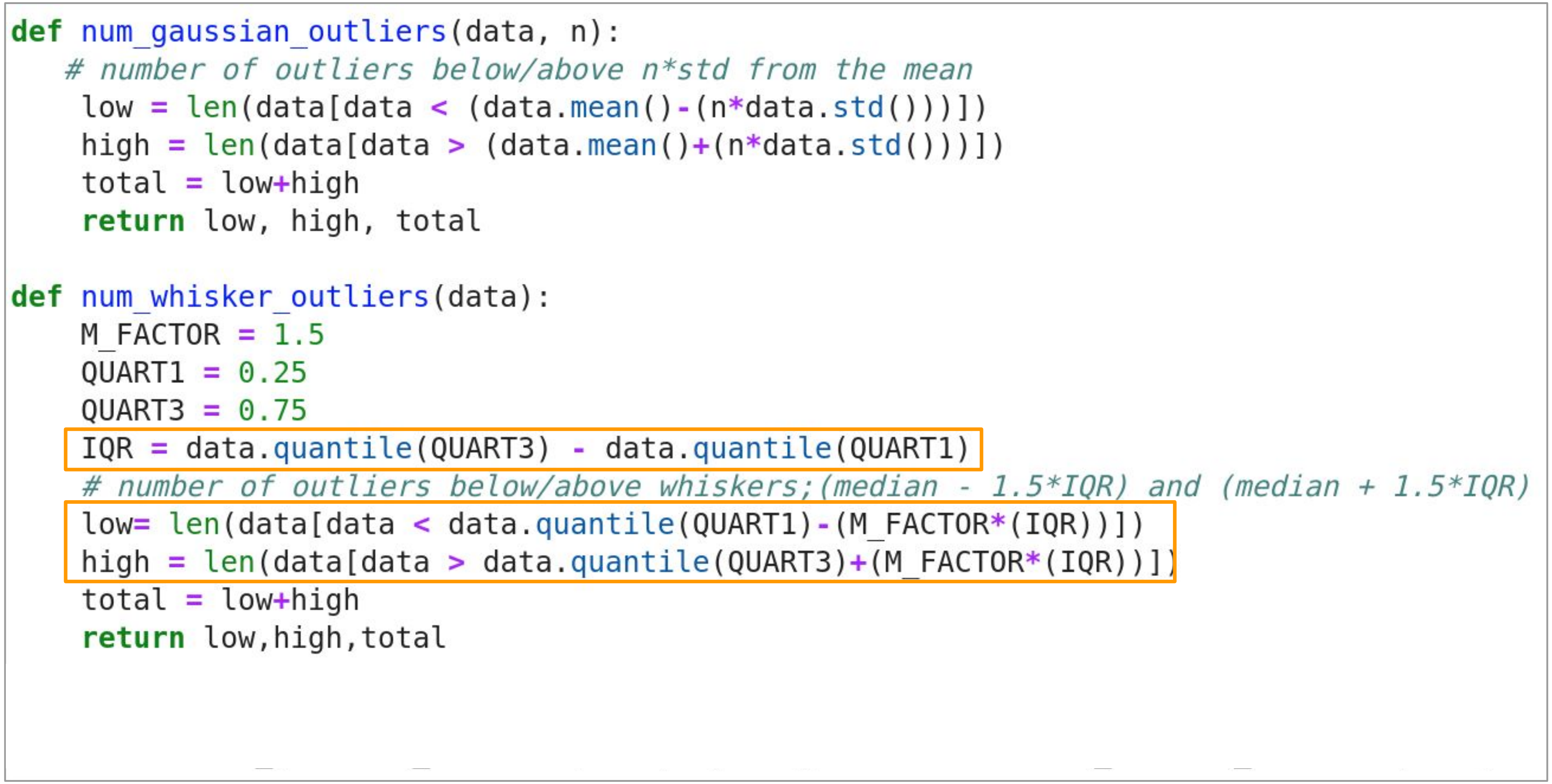

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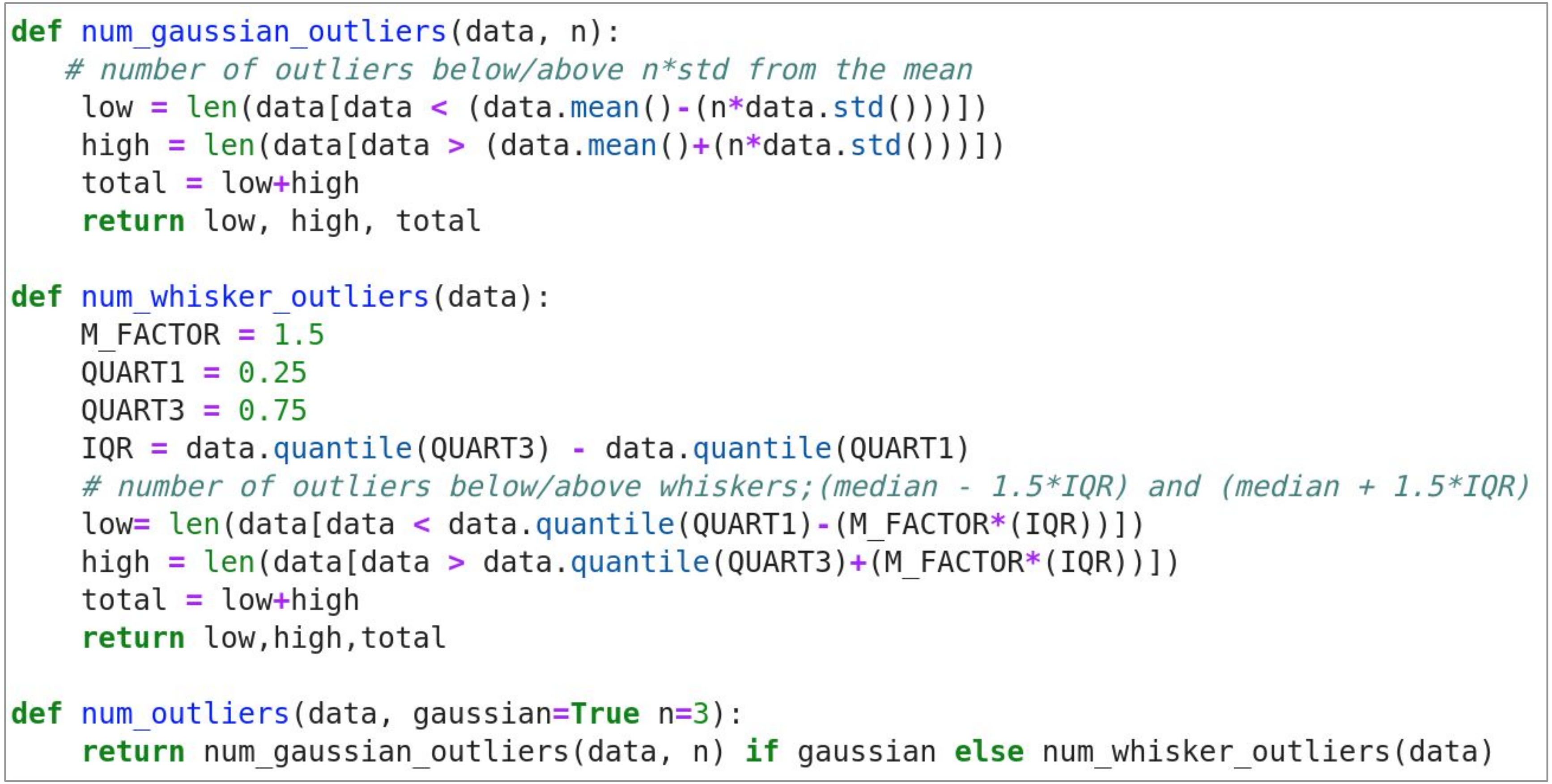

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def num_outliers(data, gaussian=True n=3):
    return num_gaussian_outliers(data, n) if gaussian else num_whisker_outliers(data)
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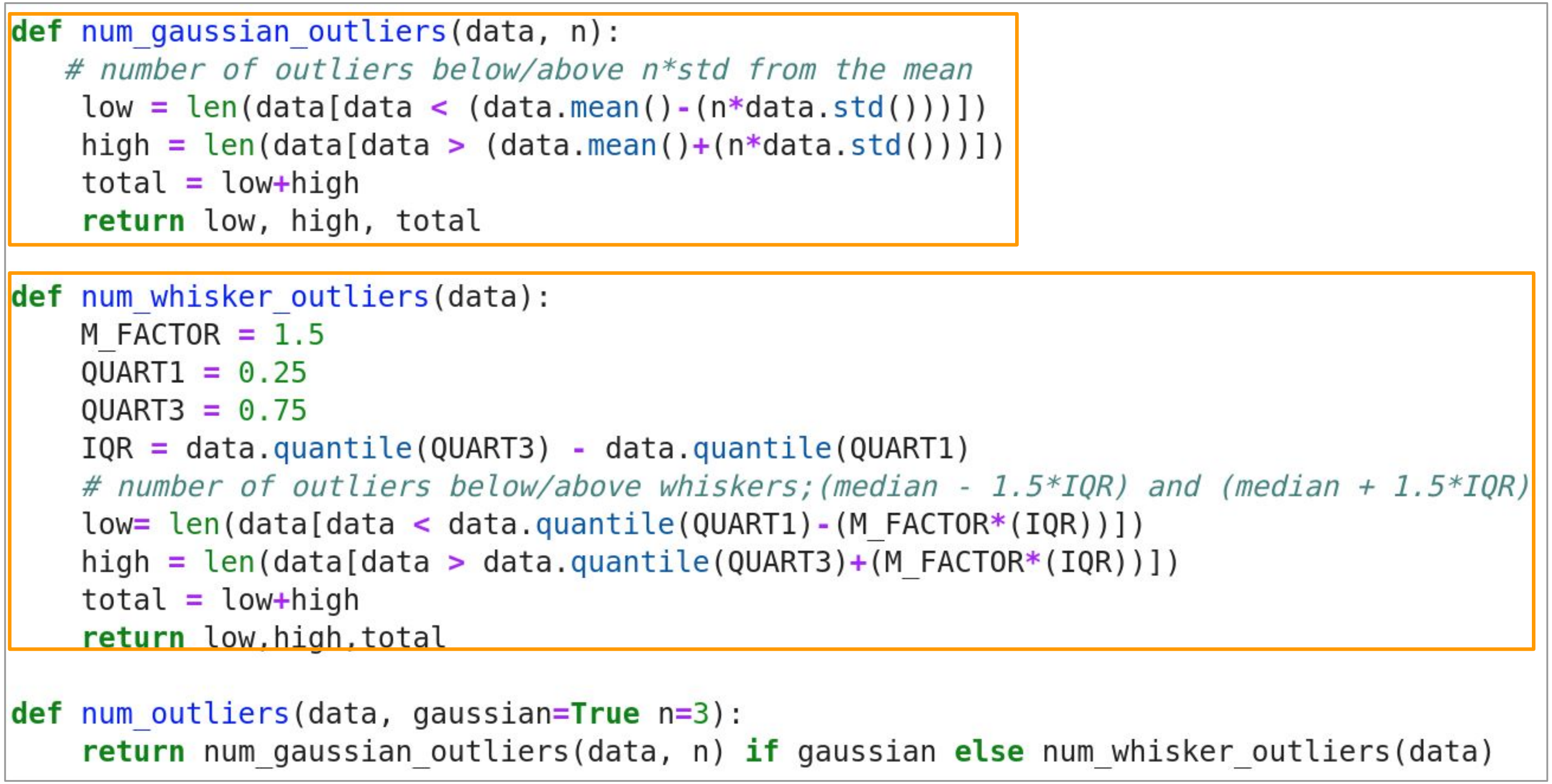

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Thank You