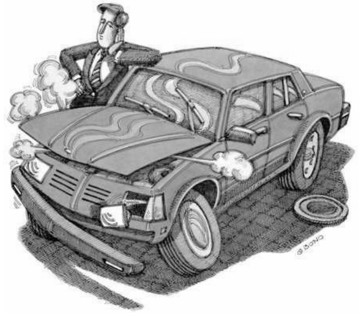
# Good Programming Practices
# Defensive Programming

Analytics Vidhya

# Defensive Programming

Car Requires Maintenance

- Check individual parts for Malfunction
  - Testing and debugging



- Take Preventive Measures
  - Defensive Programming

## Defensive Programming

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1. Preventive measures to avoid or easily detect bugs in future

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- Document constraints and specifications
- Document assumptions behind code design
- Identify boundary conditions for the code

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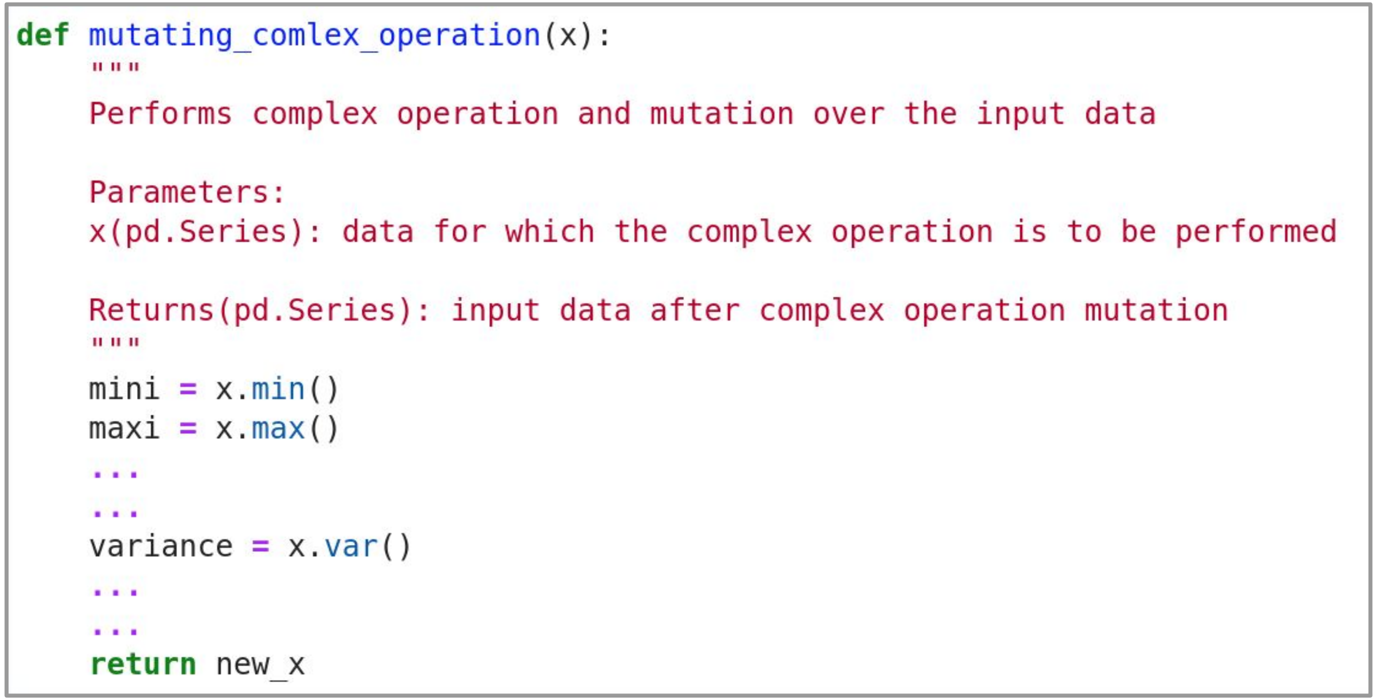
Enforced during Implementation

## Defensive Programming



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def mutating_comlex_operation(x):
    """
    Performs complex operation and mutation over the input data

    Parameters:
    x(pd.Series): data for which the complex operation is to be performed

    Returns(pd.Series): input data after complex operation mutation
    """
    mini = x.min()
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    variance = x.var()
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    return new_x
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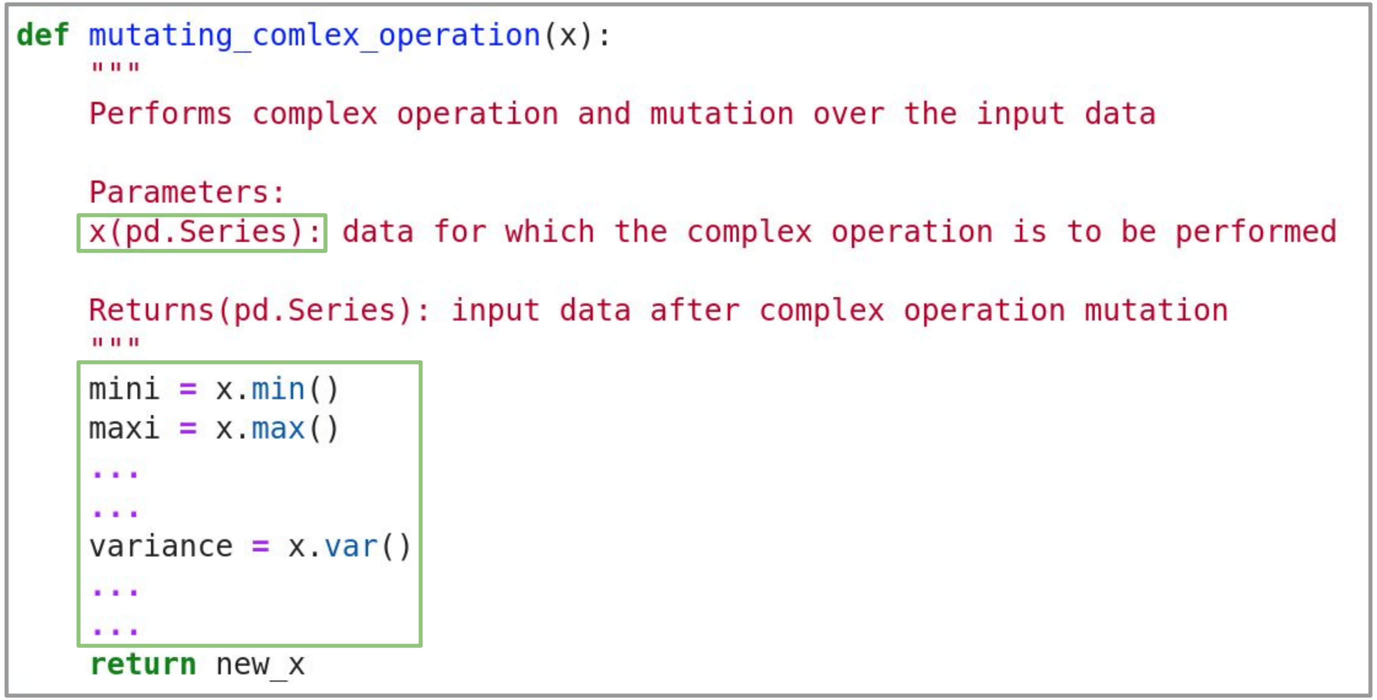

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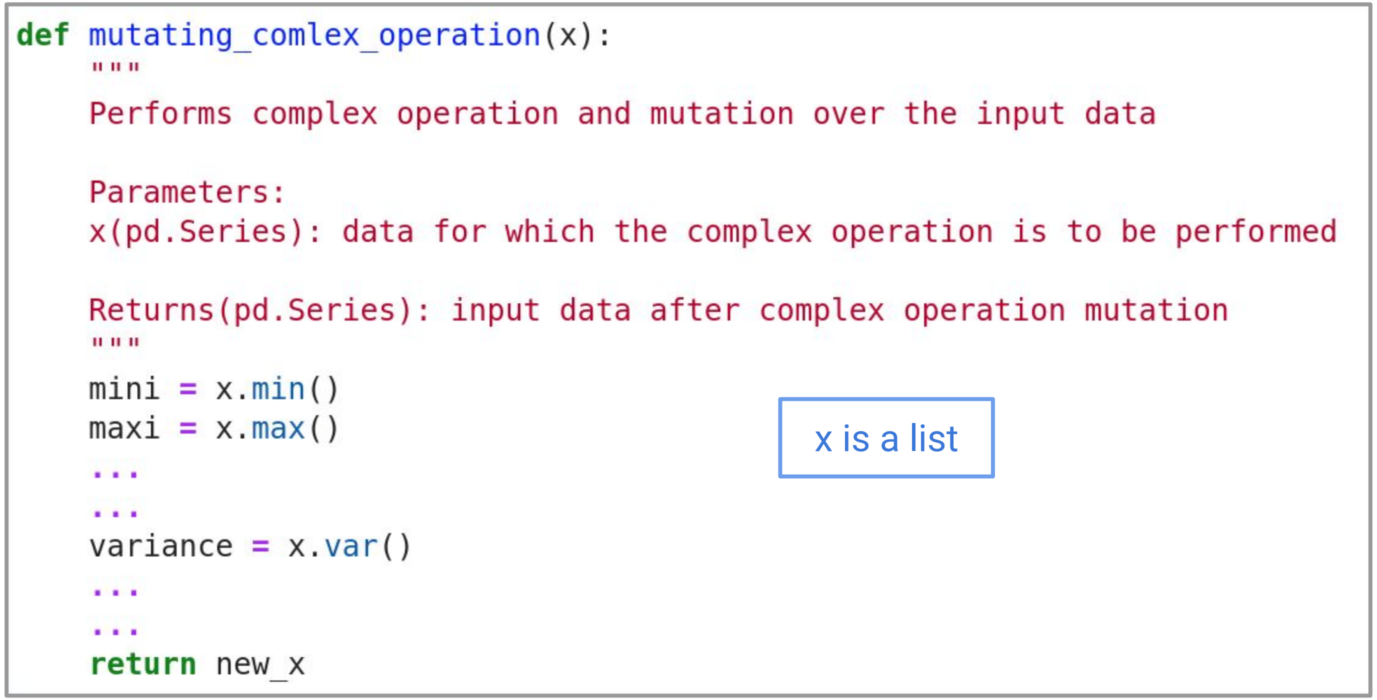

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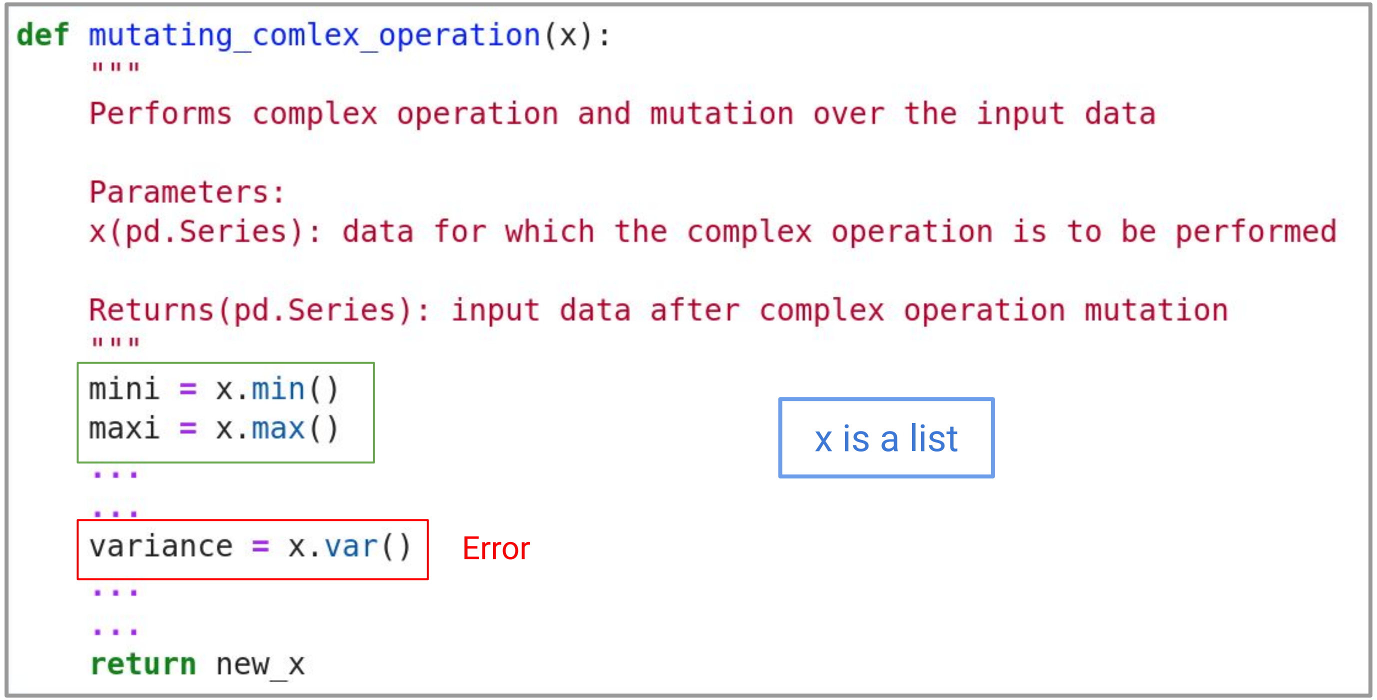

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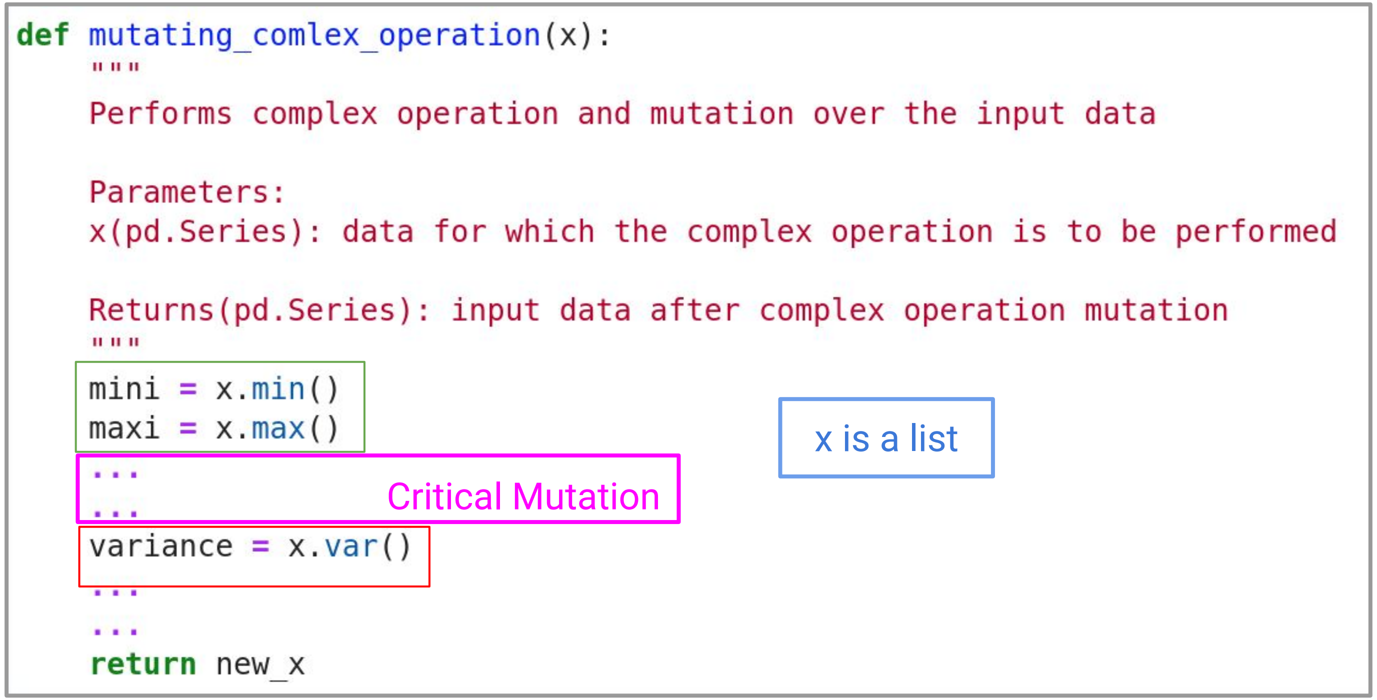

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Critical Mutation

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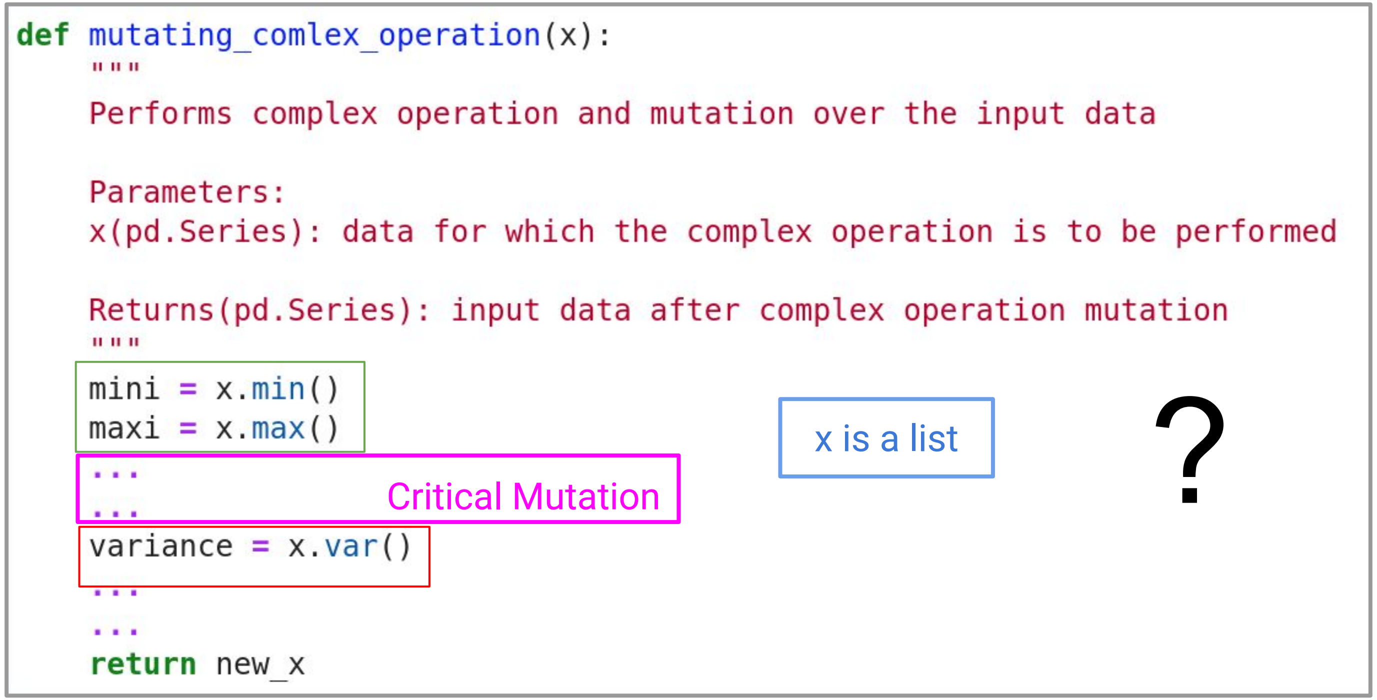

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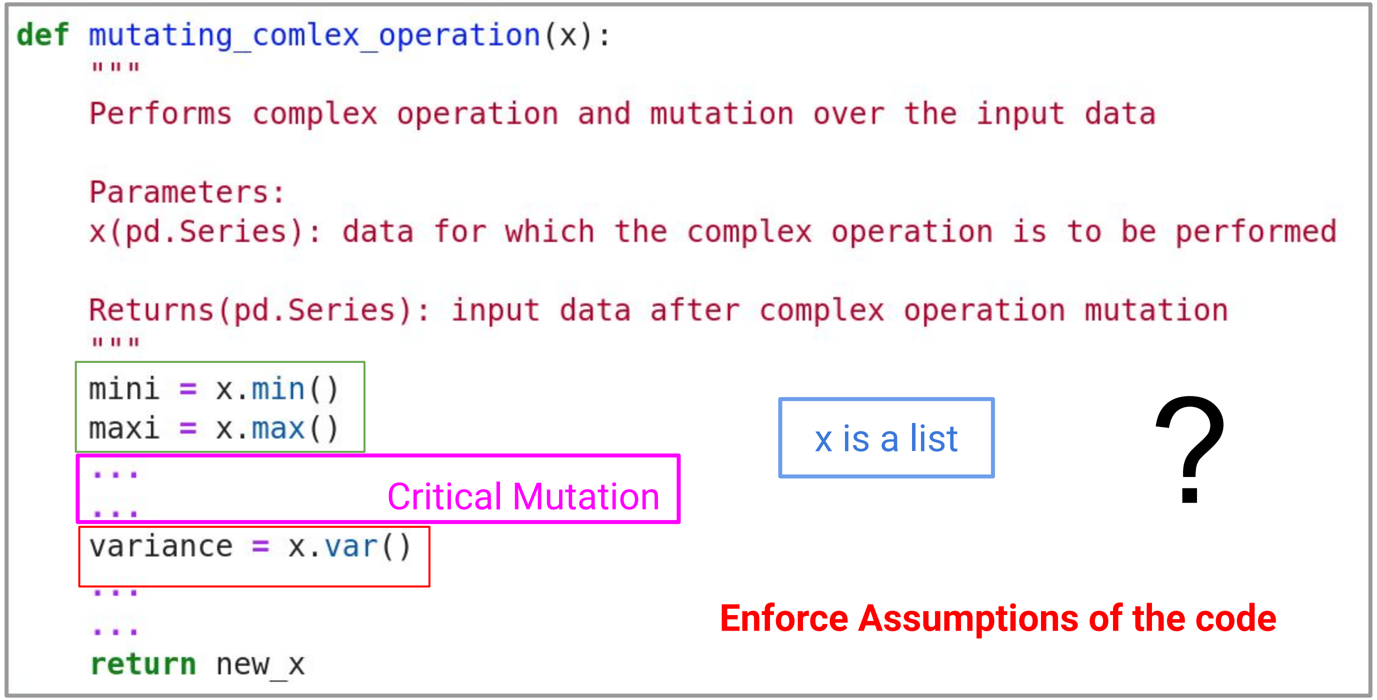

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**Enforce Assumptions of the code**

Thank You

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