**List of Bad Smells**

Name: Middle Man

Location: PR301A1-master/ChartOutputController.py

Reasons:  
1. When it’s called it just calls the methods of the graph classes without doing anything else.  
2. Complicates the code for no reason.

Strategies/ approaches: Remove Middle Man. Delete the class and call the graph classes directly from the ChartInputController instead of ChartOutputController.

Name: Long Method

Location: PR301A1-master/BoxPlot.py

Reasons:  
1. Could cause issues due to performing so many functions within one method.  
2. Could easily be split into multiple smaller methods.  
3. Method is too long.

Strategies/ approaches: Extract Method. Split the method into multiple smaller methods

Name: Lazy Class

Location: PR301A1-master/ChartOutputController.py

Reasons:  
1. When it’s called it just calls the methods of the graph classes without doing anything else.  
2. Complicates the code for no reason.

Strategies/ approaches: Inline Class. Delete the class and call the graph classes directly from the ChartInputController instead of ChartOutputController.

Name: Message Chains

Location: PR301A1-master/ChartOutputController.py, PR301A1-master/ChartInputController.py

Reasons:  
1. The classes call series of calls to access methods from other classes.

Strategies/ approaches: Extract Methods. Delete ChartOutputController and call the graph classes directly from the ChartInputController instead of ChartOutputController.