**Practical 3:**

**Aim: Perform following tasks as per given instruction**

**1. Apply Data Cleaning methods on a given data set using Weka.**

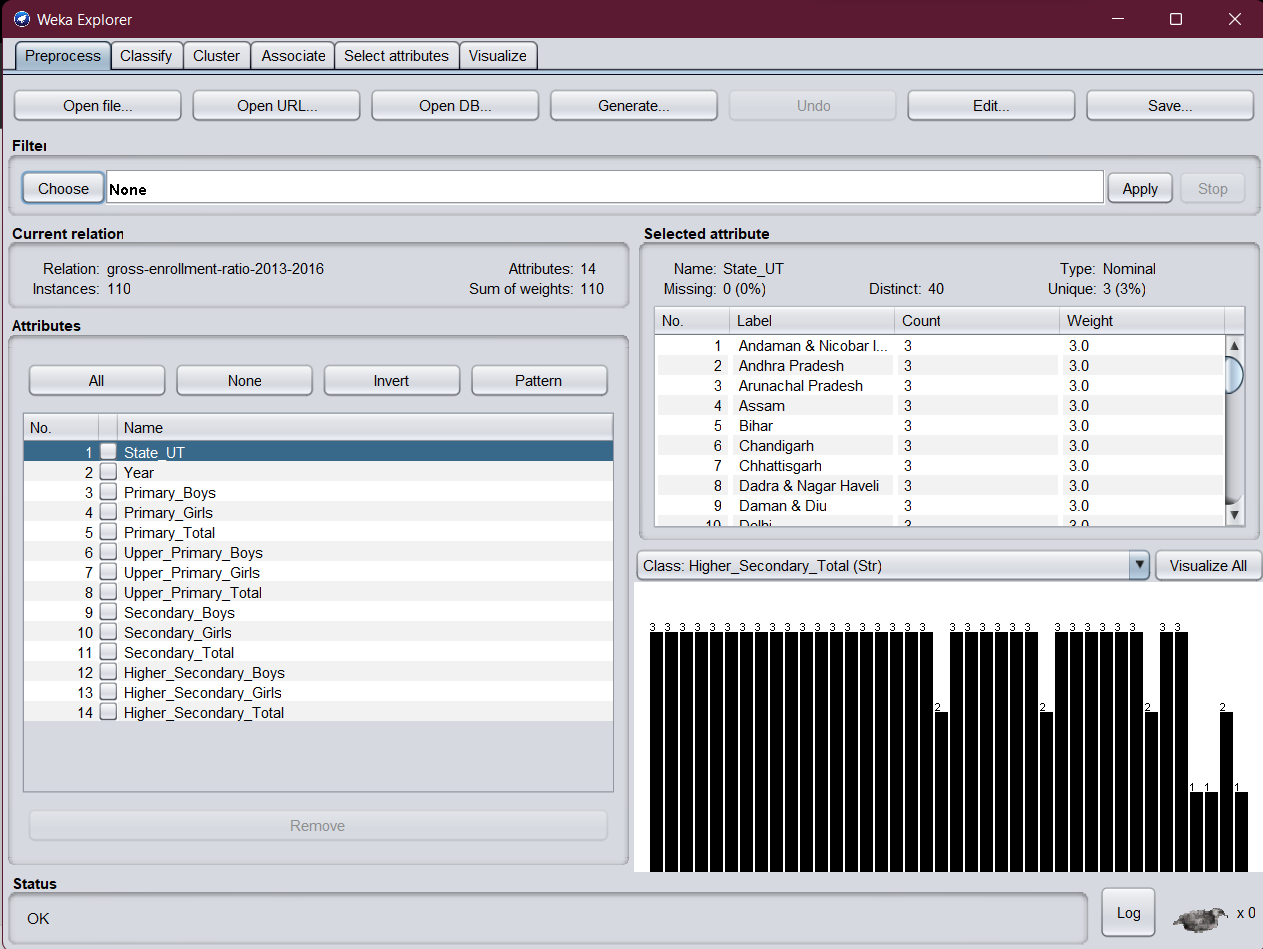
**2. To perform data cleaning by handling missing values. Pre-processing for the missing value, by replacing them with all the following for the given dataset**

**\* With the global constant like Unknown or –infinity**

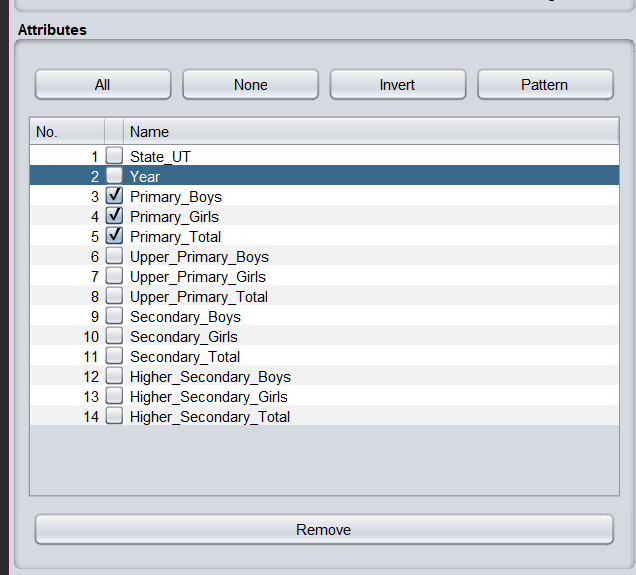
**\* Use the central tendency of attribute Mean (numerical attributes)**

**\* Use the class wise attribute Mean or median**

**\* Apply all three normalization methods to any one numeric attribute.**

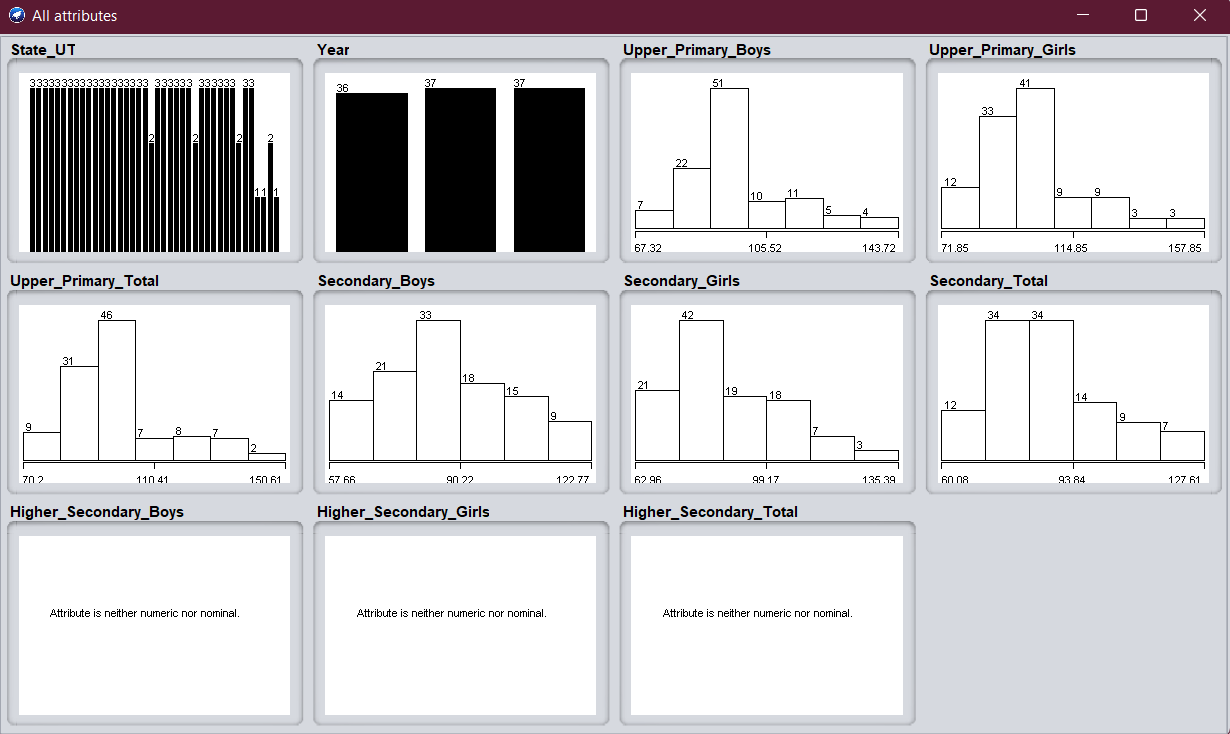


* Removing not needed attributes

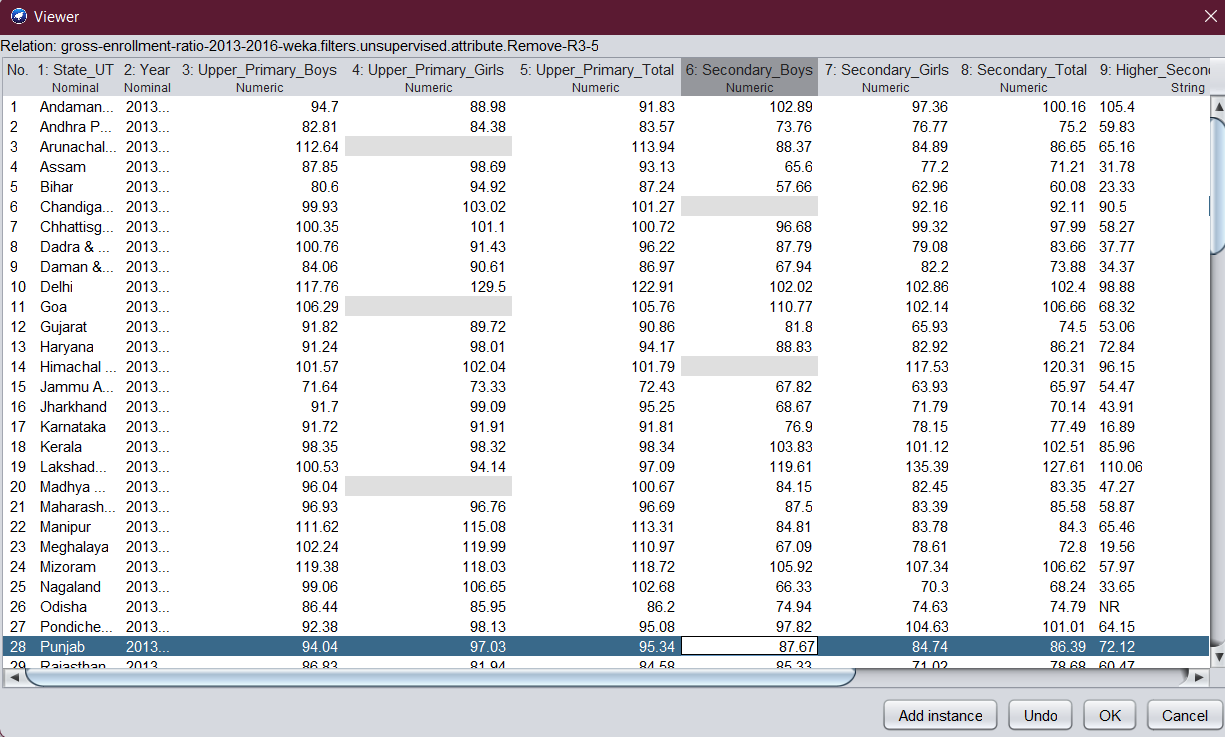




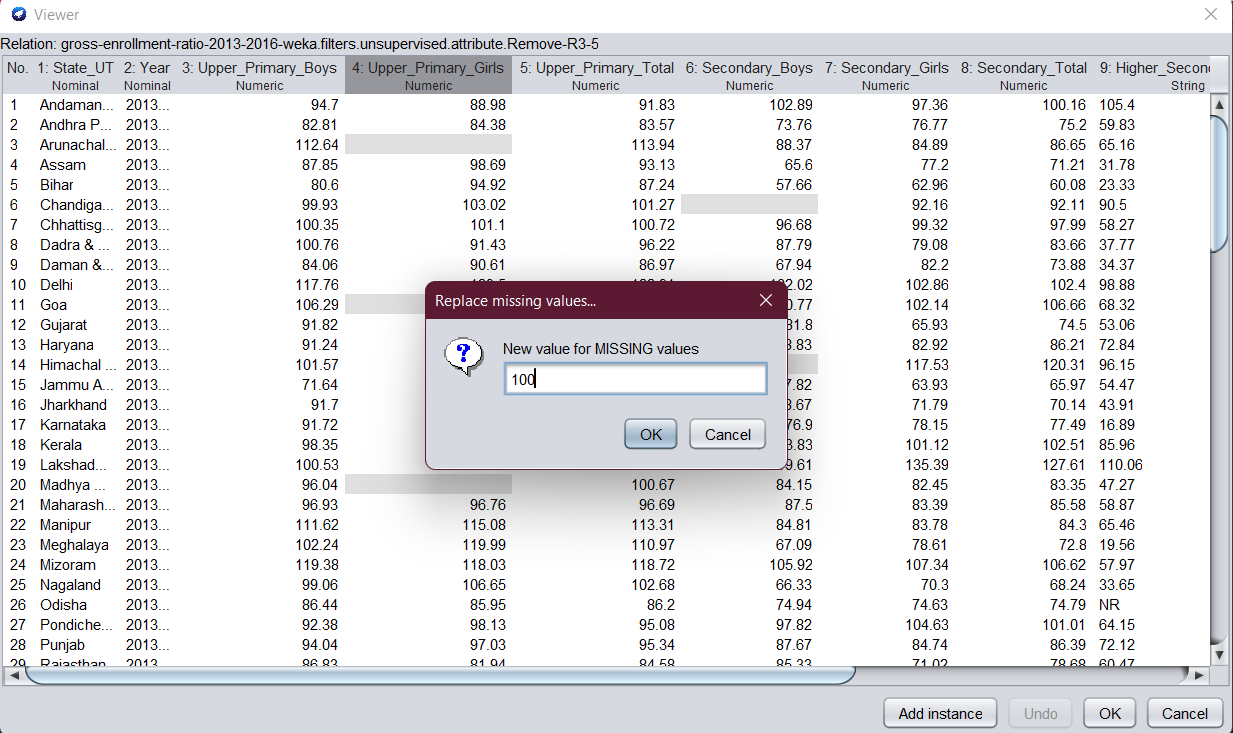
* Visualization of dataset after cleaning

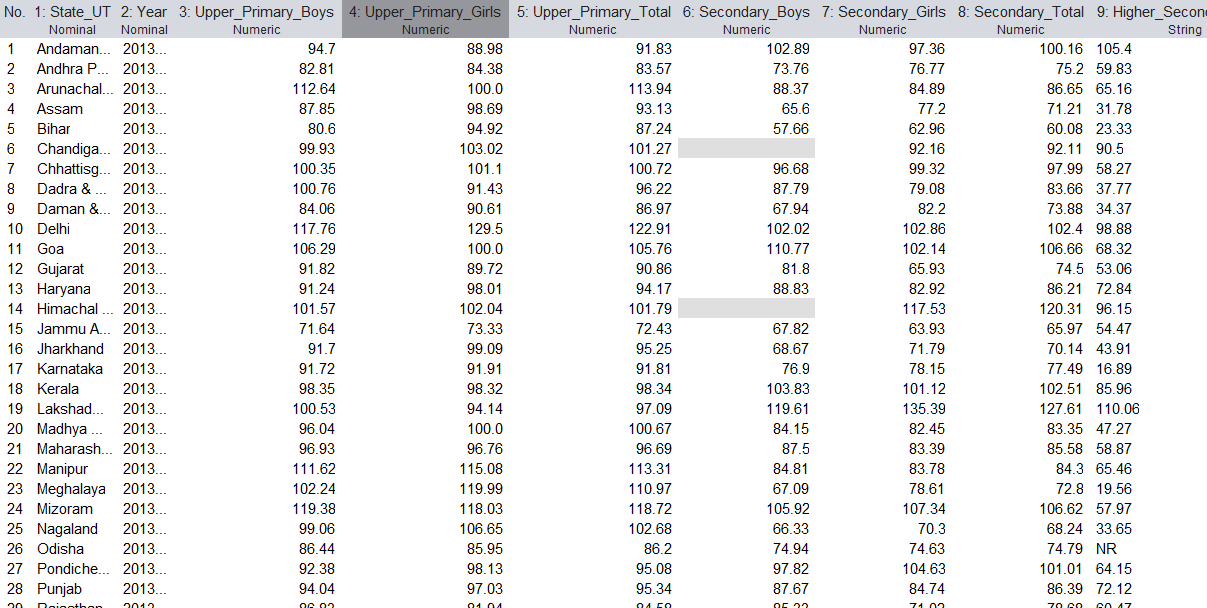


* Missing values in dataset



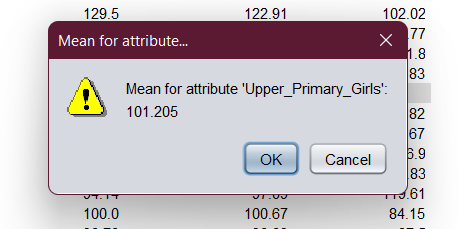
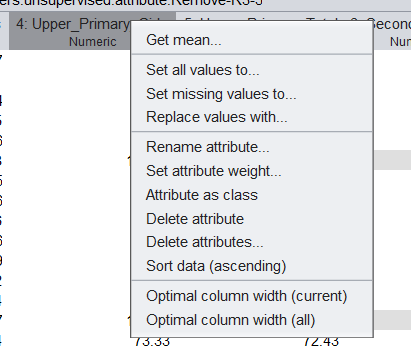
* Setting missing values without using any filter



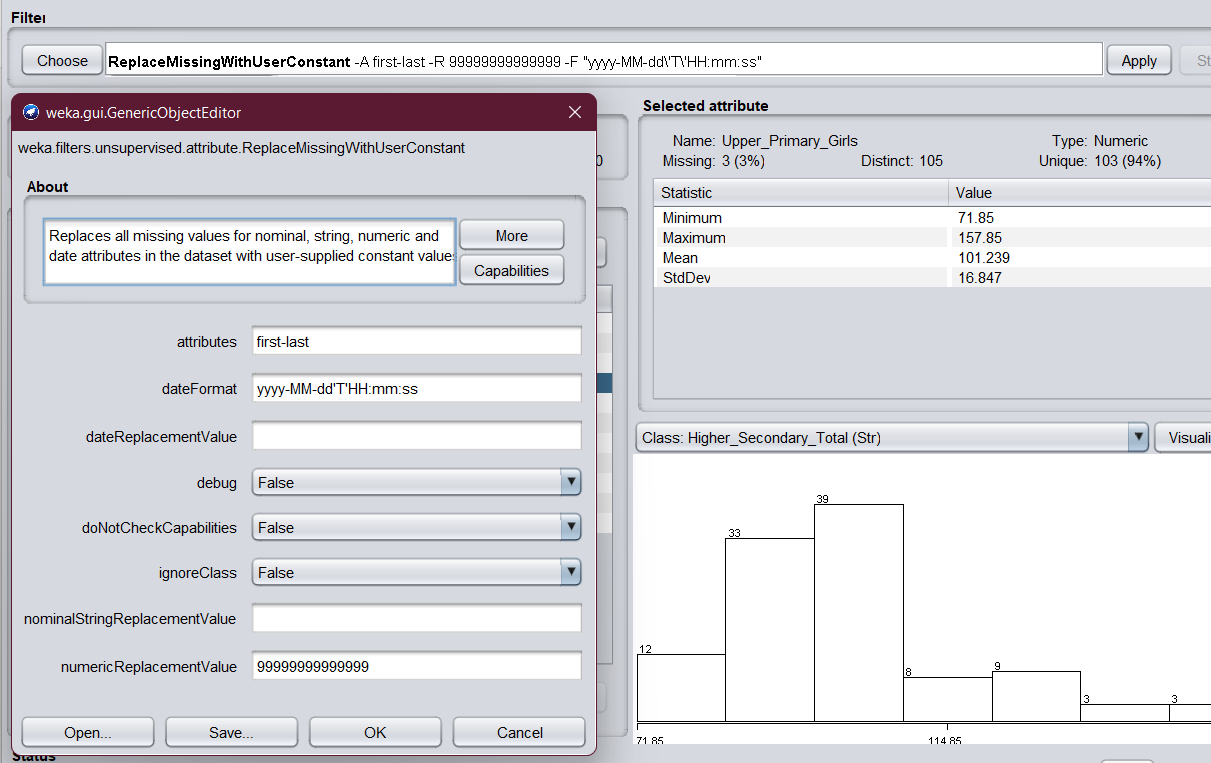




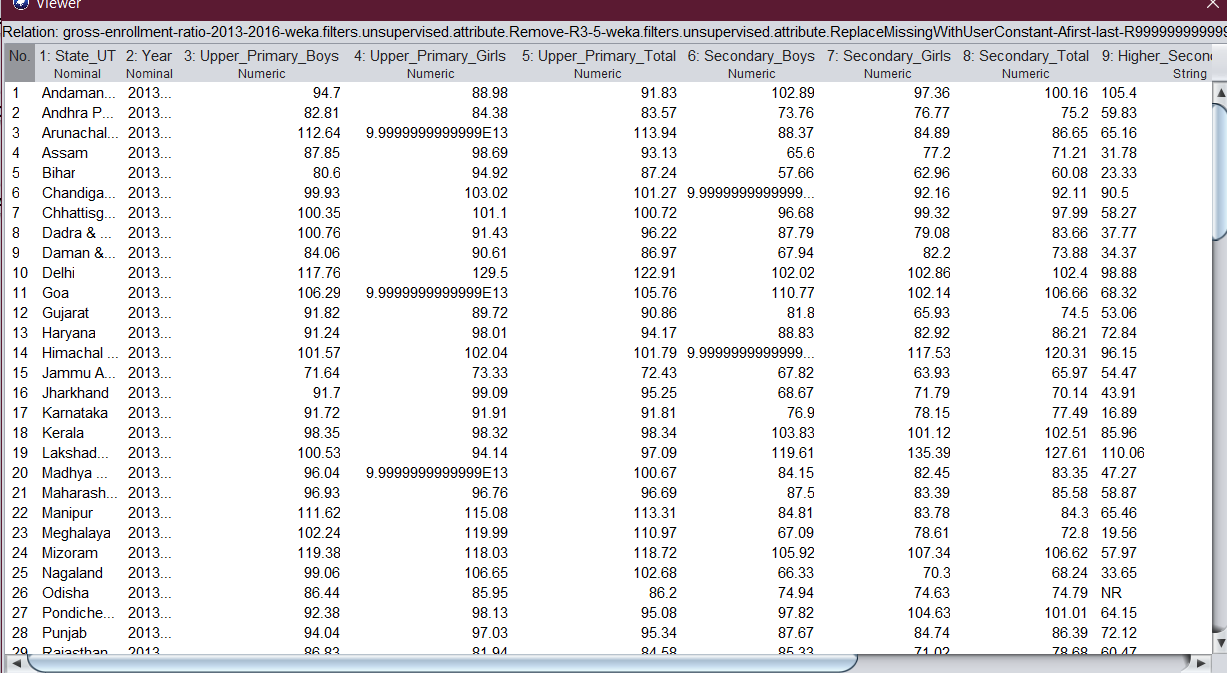
* Getting mean of the attribute



* Applying filter to replace missing values with constant

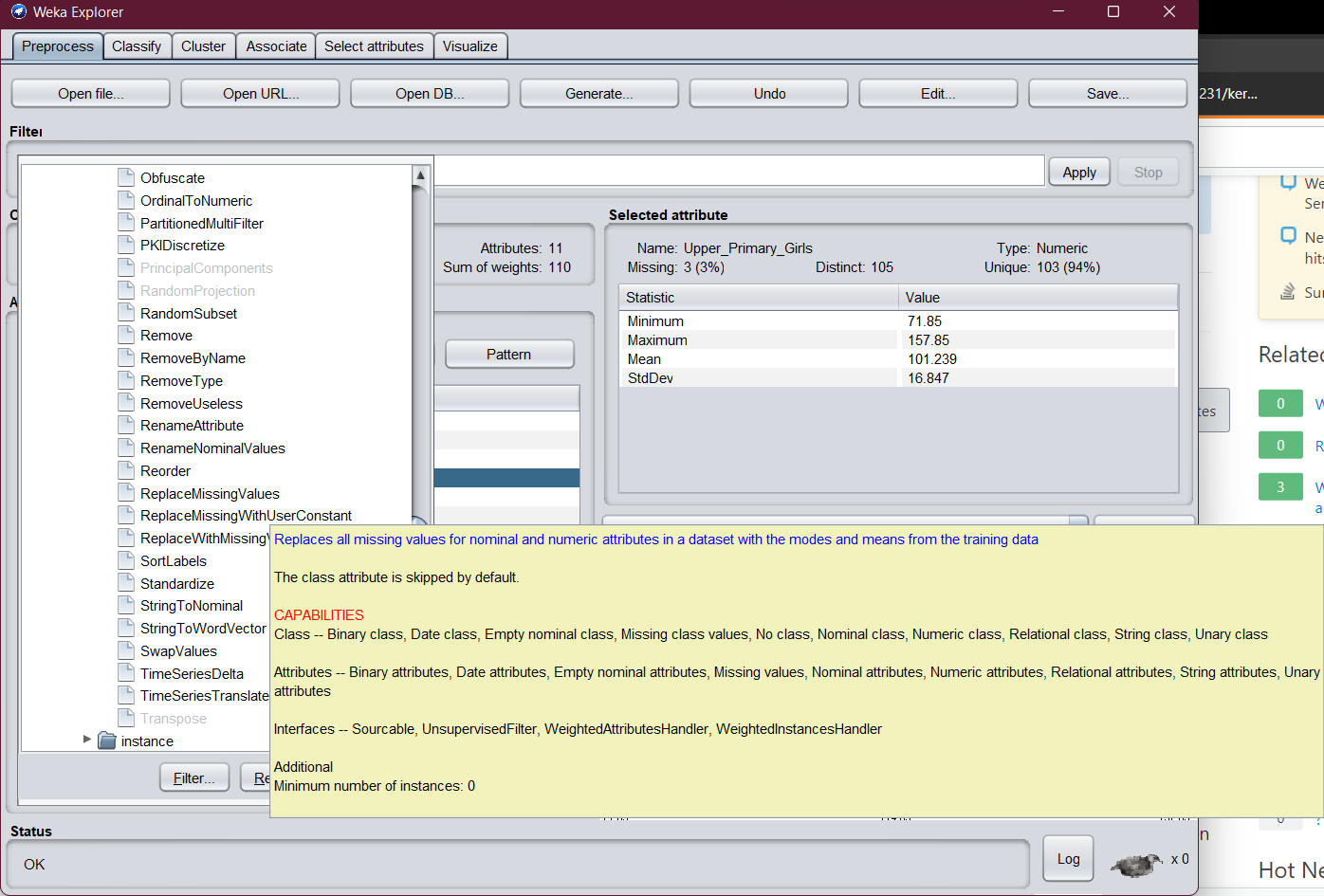


* Result after applying missing values with constant filter



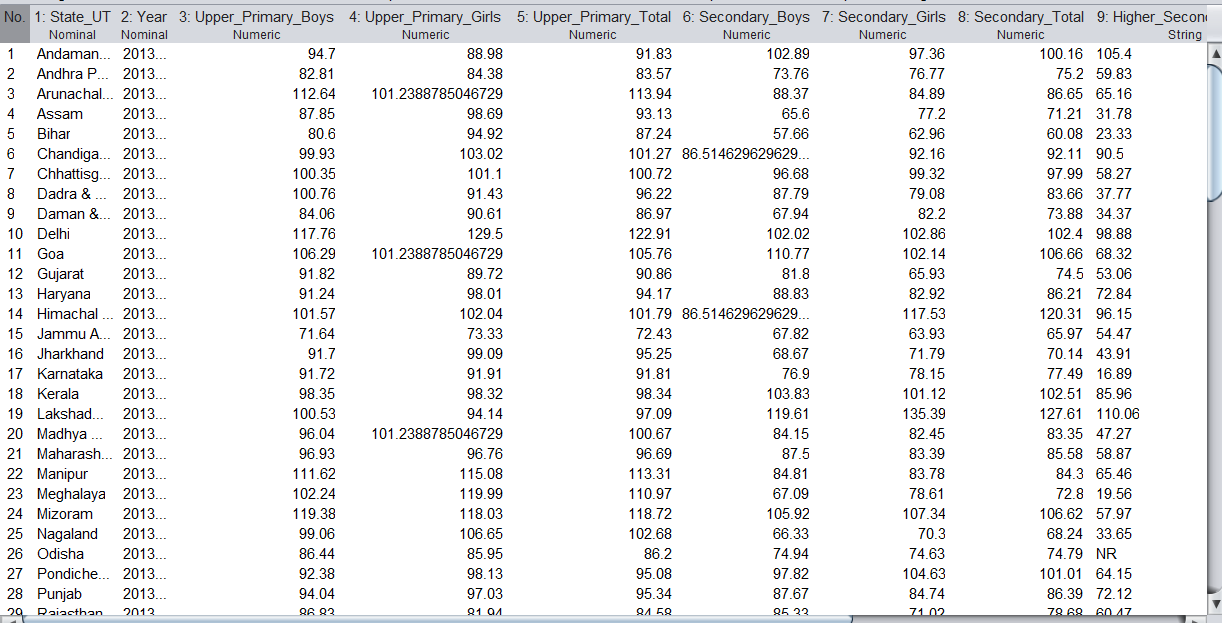


- After applying missing values filter (replacing with mean value)





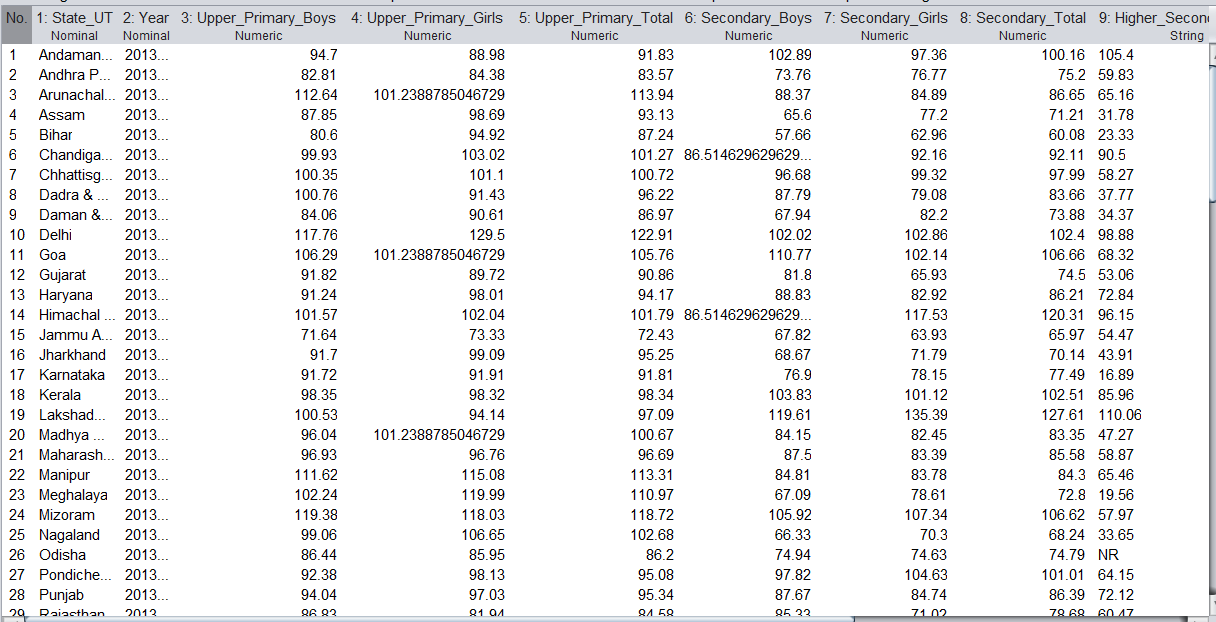
* Result after applying missing values filter



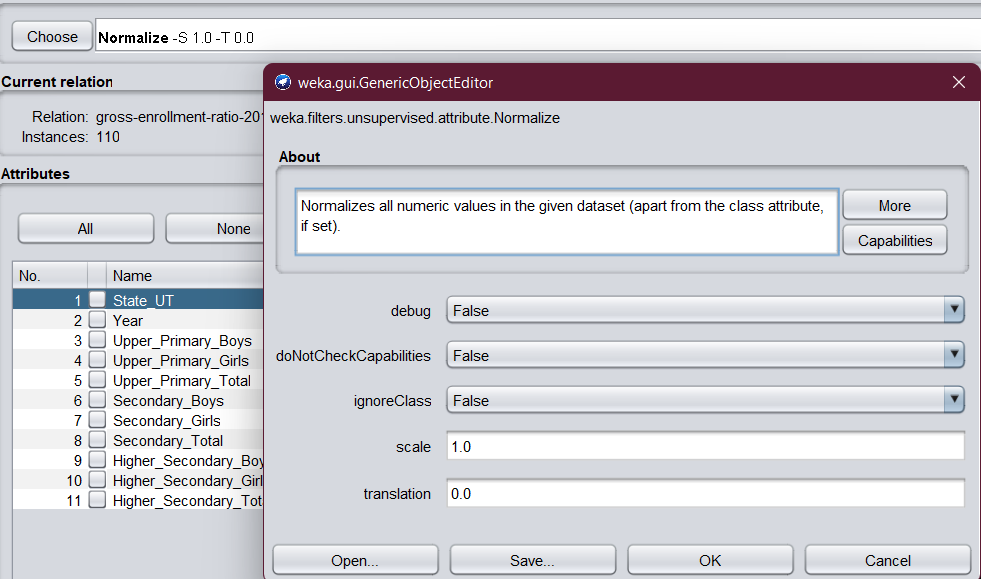


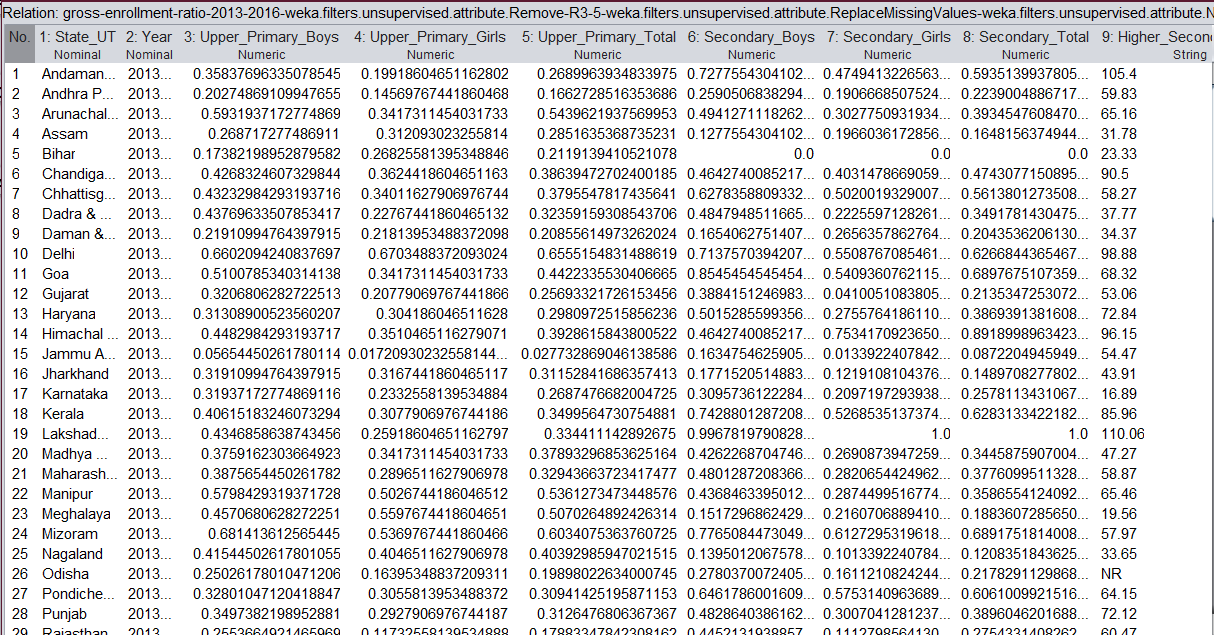
**Normalization of dataset**

* **Before**

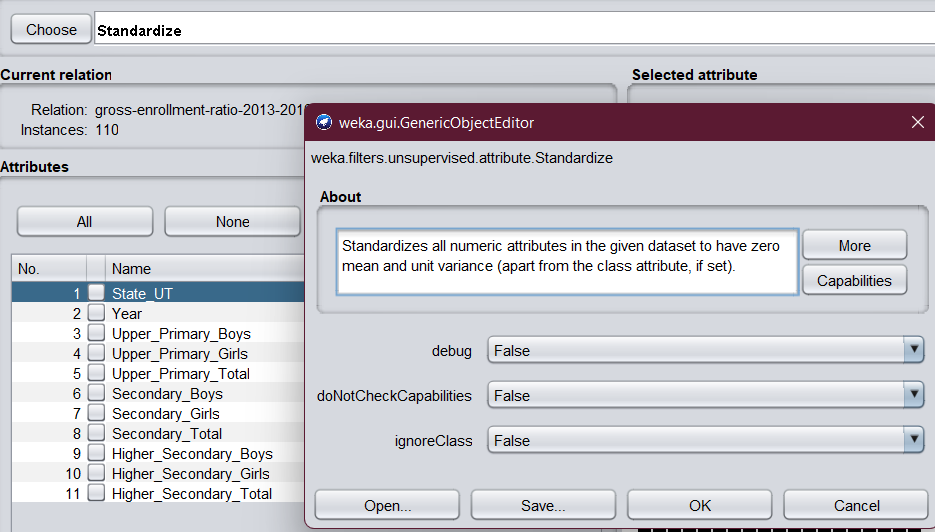
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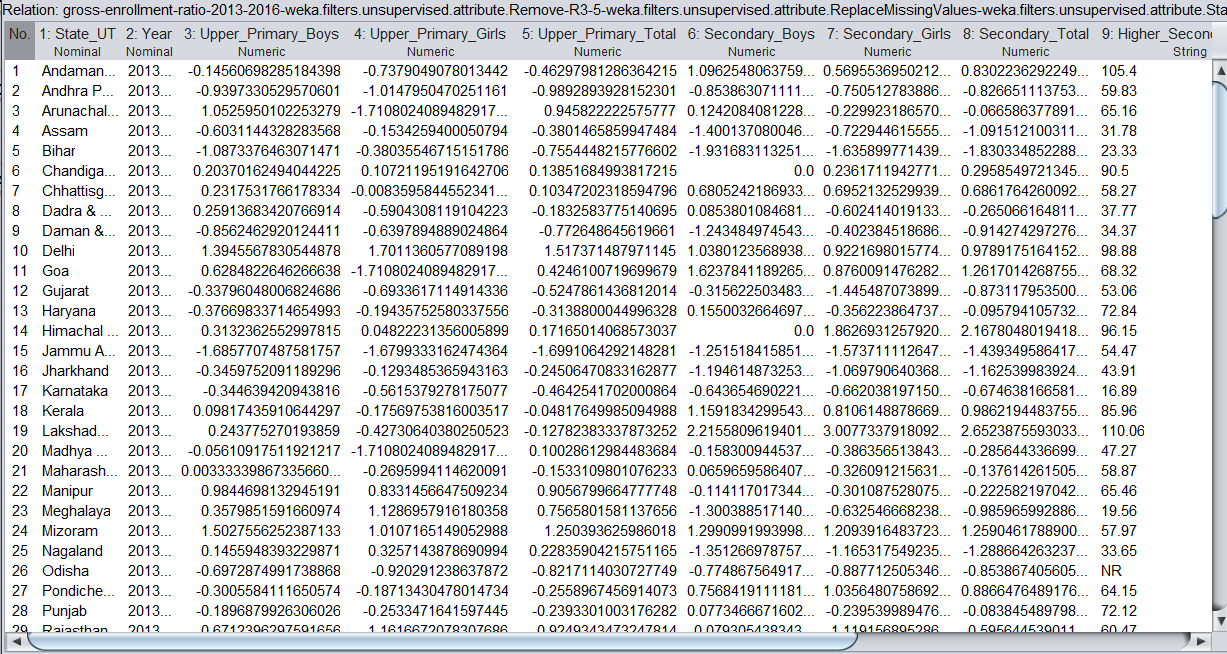
* **After Normalization**

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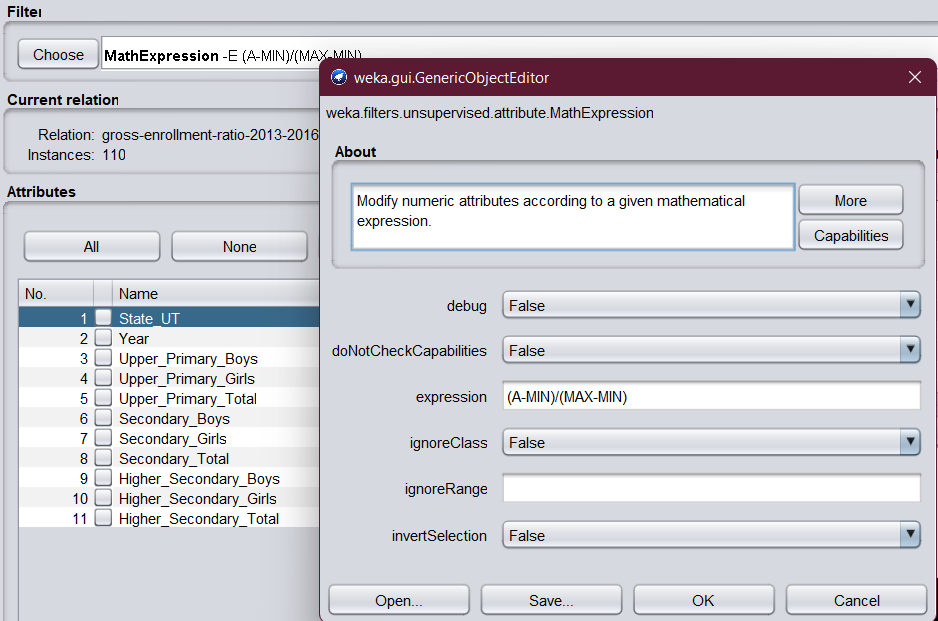
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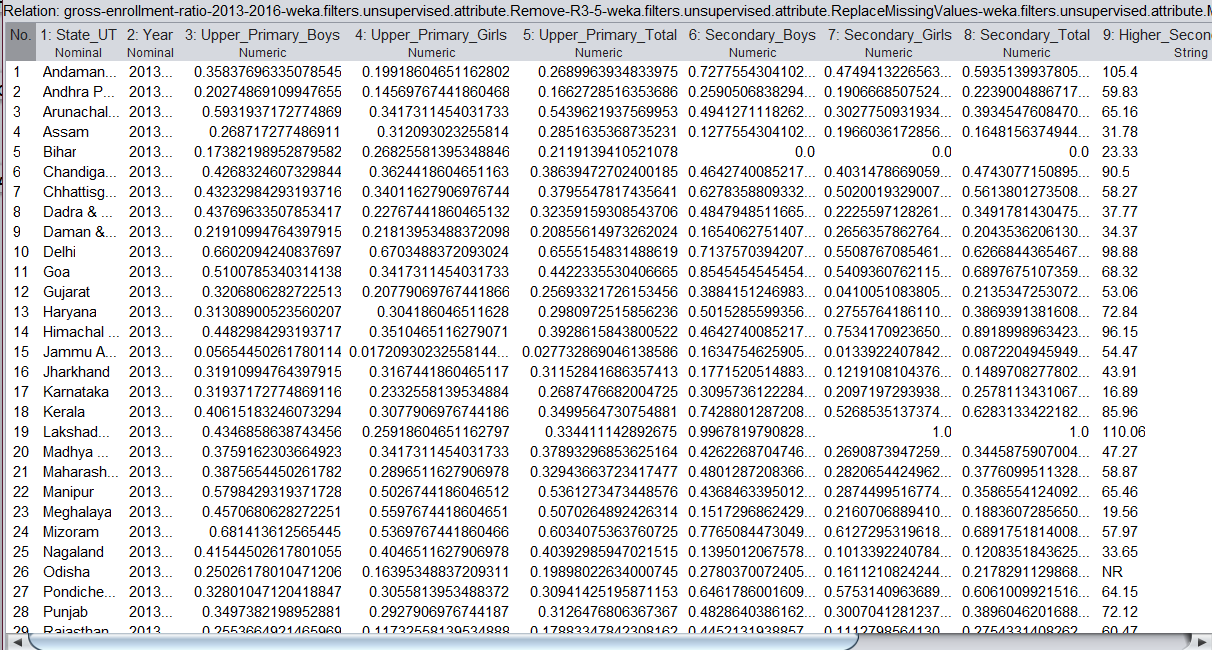
**Standardization**

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**Math Expression**

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