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| class: Algorithm | |
| **ATTRIBUTES** | |
| int stepsTaken | track the number of steps performed by the algorithm |
|  |  |
| **METHODS** | |
| void: init(ColorCoded[]: encodedDataset) | gets a shallow copy of the color coded dataset |
| void: nextStep() | performs the next sorting step in the algorithm |
| void: sorted() | returns True if the dataset is sorted |

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| class: Visualizer | |
| **ATTRIBUTES** | |
| int [] \_\_dataset | the array of integers (raw data) to be sorted |
| ColorCoded[]: \_\_encodedDataset | the color-coded dataset that is given to the sorting algorithms |
|  |  |
| **METHODS** | |
| ColorCoded[]: \_\_encodeDataset() | color codes the values in the dataset |
| void: \_\_render() | renders the dataset to the visualizer window |
| void: setDataset(int[]: dataset) | sets the dataset being used for sorting |
| void: setAlgorithm(String: algorithm) | sets the users’ choice of sorting algorithm |
| void: start() | starts the visualizer |

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| class: ColorCoded | |
| **ATTRIBUTES** | |
| int value | the value |
| long color | the encoded color (hexadecimal value) |