

# Hurricane Project – Array Basic Statistics and Sorts

## Early Peer Review

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Total     /25

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Assessor Carol Wininger Date signed off as being completely correct 1/14/2021

### Hurricane Class

- ✓
- ✓ Comments include name, date, and summary using Javadoc and uses correct grammar.
- ✓ Instance variables – declared to be private and variable names are spelled out
- ✓ Constructor with correct parameters and it calls `determineCategory`
- ✓ `getName`, `getPressure`, `getSpeed`, `getYear`, `getMonth`, `getCategory`
- ✓ `determineCategory`
- ✓ `toString` – uses `String.format` method
- ✓ `compareYearTo`, `compareNameTo`, `comparePressureTo`, `compareSpeedTo`, `compareCategoryTo` (each are one-line methods)
- ✓ CheckStyle finds no errors. Javadoc is correctly done for all methods and constructors. These include:
  - Summary
  - @param, if appropriate
  - @return, if appropriate

### HurricaneOrganizer Class with an Array of Hurricane Objects

- ✓ Comments include name, date, and summary using Javadoc and uses correct grammar.
- ✓ Instance variables – array of hurricane objects
- ✓ `findMaxPressure` without sorting first
- ✓ `findMaxWindspeed` without sorting first
- ✓ `findMinPressure` without sorting first
- ✓ `findMinWindSpeed` without sorting first
- ✓ `calculateAveragePressure`
- ✓ `calculateAverageWindSpeed`
- ✓ `calculateAverageCategory`
- ✓ `sortYears` – selection sort that sorts the years ascending and uses `compareYearTo`
- ✓ `sortNames` – insertion sort that sorts the names ascending and uses `compareNameTo`
- ✓ `sortCategories` – selection sort that sorts the categories descending and uses `compareCategoryTo`
- ✓ CheckStyle finds no errors in the methods listed above. Javadoc is correctly done for all methods and constructors. These include:
  - Summary is clear, concise and useful to a client of the class.
  - @param, if appropriate (if the parameter is an index, the comment states if index is included or excluded)
  - @return, if appropriate

### Hurricane Testing

Test	
Test the sorts in the following order:	✓
• Sort names (ascending)	✓
• Sort categories (descending)	✓
• Sort years (ascending)	✓
Test averages:	✓
• Wind 90.86	✓
• Pressure 961.76	✓
• Category 2.12	✓
Test minimums and maximums:	✓
• Speed min 64 max 150	✓
• Pressure min 882 max 1002	✓