

2020 Java Coding Competition Finals

The Problem

Congratulations on your success with the initial skill test completed for SF Analysis. We would like to give you a little more flexibility with your new assignment. You will be provided with several data sets of information pertaining to topics such as automobiles and forest fires. Descriptions of these data sets can be found here:

- <https://archive.ics.uci.edu/ml/datasets/Forest+Fires>
- <https://archive.ics.uci.edu/ml/datasets/automobile>
- <https://archive.ics.uci.edu/ml/datasets/Adult>
- <https://archive.ics.uci.edu/ml/datasets/Auto+MPG>
- <https://archive.ics.uci.edu/ml/datasets/Car+Evaluation>
- <https://archive.ics.uci.edu/ml/datasets/Seoul+Bike+Sharing+Demand>

Your goal is to take one or more of these data sets and make sense of the data; some examples of how to do this include: implementing methods and reporting, making a GUI, building a web service, etc... You have the freedom to manipulate and present the data however you like (do NOT modify the datasets themselves). If you are aware of other reputable data sets that will aid in your analysis of the given data, feel free to incorporate that into your findings; be sure to include references to where you obtained data, not provided by this problem statement.

Examples of data we could be interested in:

- The costs of insurance based on data for different types of vehicles.
- How weather conditions affect rates of forest fires.
- What months forest fires are more likely to occur.

When you are done:

- Update the feedback.txt file and include the following information:
 - Names
 - Document and describe the features included, to help the judges properly grade your submission and explain how to properly execute.

Rules

- Contestants cannot seek help from individuals outside their team.
- You may use the internet to do searches about Java functionality, but we **do not** want you to download a data analytics tool to process the data. We want to see what type of features you can provide using Java to manipulate the data.
- You may use other reputable external Java dependencies, such as Java Spring Boot.
- If you want to change the data type of class objects (for example from a string to an integer), you may do so.

How you will be graded

The finals competition is broken up into three sections of grading.

Initial Online Competition – 33%

Presentation – 33%

Finals Code review – 33%

- code cleanliness
- maintainability
- adherence to object-orientated principles