

# In-Class Exercise and Homework 2:

## Write K-Means in R

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Write a version of simple K-Means in R and name the file `KmeansHomework.R`. The function signatures should be similar to those of `simpleKMeans()`, `simpleAssignToCentroids()`, and `simpleDetermineCentroids()`.

You can use `SimpleKMeans_Homework.R` as a template. Execute the built in tests and verify that your code works:

- `plotClustering()` – already implemented
- `simpleKMeans()` – already implemented
- `simpleDetermineCentroids()` – needs to be implemented
- `simpleAssignToCentroids()` – needs to be implemented

In `KMeansTest.R` you'll find a set of points and two sets of initial centroids. The outputs corresponding to these two sets of initial centroids are also given for you to verify correctness of your code. However, additional sets of initial centroids will be used to verify correctness of your code. Try experimenting with different numbers of initial centroids. Use `plotClustering` function for debugging and visualization.