In this assignment, you need to aggregate data at several grain-sizes, such as you would do if you were planning to build a detector at those grain-sizes, using the data in data file Data-Subset-Pardos-et-al-2013-actions.csv and Data-Subset-Pardos-et-al-2013-observations.csv. This data is a small subset of the data set used to build the affect detectors in

Pardos, Z.A., Baker, R.S.J.d., San Pedro, M.O.C.Z., Gowda, S.M., Gowda, S.M. (2013) Affective states and state tests: Investigating how affect throughout the school year predicts end of year learning outcomes. Proceedings of the 3rd International Conference on Learning Analytics and Knowledge, 117-124.

This paper can be found at

http://www.columbia.edu/~rsb2162/LAK_2013_Affect_ZBSGG_camera_ready_rev4.pdf

A description of many of the variables can be found in that paper. Note that the observations are not be set up in the same fashion as reported in that paper.

The data is drawn from the ASSISTments system, a formative assessment and online learning system used by over 40,000 students a year.

https://www.assistments.org/

There are many tools you can use to complete the assignment. The hints are written with Microsoft Excel in mind, and are close to what you would do for Google Sheets. You could also use iPython Notebook, R, OpenRefine, or a range of other tools.