

## Exercises in Week 8

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**Exercise 1.** Download adult.csv from Moodle. Read this file to Python and then use the simple random sampling method to sample 4000 observations from the dataset.

**Exercise 2.** On variable age in the sampled data from Exercise 1, provide

- Mean
- Median
- Min
- Max
- Standard deviation
- The 1<sup>st</sup> quartile
- The 3<sup>rd</sup> quartile

**Exercise 3.** Use the systematic sampling method to sample every 1000th observation from Adult.csv

**Exercise 4.** Use the stratified random sampling method to sample every 40% of the observations from Adult.csv from income>=50K and <50K, respectively.

**Exercise 5.** Can you give some examples of

- Simple random sampling
- Systematic random sampling
- Stratified sampling
- Cluster sampling