

AUA CS 108, Statistics, Fall 2019

Lecture 02

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Intro To Statistics

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- ▶ Some important Notions and Definitions
- ▶ Stages of Doing a Statistical Analysis
- ▶ Different Types of Variables

Last Lecture ReCap

- ▶ *Question:* What is Statistics?

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- ▶ Are **PSSs on Mondays** convenient for you?

Quiz Time

Quiz Time is yet to Come 😊

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Here is one of the standard Datasets in **R**:

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head(cars)
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##    speed  dist
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## 2      4    10
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- ▶ Give two **Observations**.

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- ▶ Drawing Conclusions, Making Predictions

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First, for doing Statistics, Statisticians are modelling the process of Data Collection, they are *Designing the Experiment and the Sampling Methodology*. Correct design is very important for doing a correct analysis.

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Definition: We say that our Sample is *Representative* (obtained by a Simple Random Sampling), if it is obtained in the process where all Samples of size k have the same probability of being chosen.

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Which one gives a Simple Random Sample?