

Home Assignment 01

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Data Analysis for Economics – Fall 2025

Overview

This is an **optional home assignment** (no grade/no points). If you send me the solution, I will provide you with feedback.

The dataset `home01/source/survey_ep.csv` (in our Dropbox shared folder) reports the results of a survey run with Law students to illustrate the basics of demand and supply. Each respondent was randomly assigned the role of either *Buyer* or *Seller* of a book. The survey consists of a sequence of accept/reject questions at different prices. You can find the survey here (in Italian).

Task

Your goal is to filter out respondents whose behavior is inconsistent with basic economic assumptions. A respondent should be flagged as **IRRATIONAL** if at least one of the following conditions applies:

1. Multiple Switching

- A respondent *switches* more than once as prices change.
- Example: decision sequence like $1 \rightarrow 0 \rightarrow 1$ or $0 \rightarrow 1 \rightarrow 0$.

2. Violation of Standard Assumptions

- **Buyers:** as price increases, demanded quantity must *not* increase.
- **Sellers:** as price increases, supplied quantity must *not* decrease.

Submission

If you would like feedback, please send me your Python script at: `mgnieddu@unica.it`