**Partial Equilibrium Computer**

**Project Objective:** to create a python program that solves for partial equilibrium in an arbitrary market

* **Consumer Problem**
  + Users provide the program with the following:
    - Utility function for a good (quasilinear)
    - Number of consumers in the market
  + The program outputs the following:
    - Market demand and inverse demand function and curve
    - Graphs the resulting curve if specified
* **Producer Problem:**
  + Users provide the program with the following:
    - Revenue function
    - Cost Function
    - Number of firms (if n=1 then monopoly, if n>1 then perfect competition)
  + The program outputs the following:
    - Market demand and inverse market demand function and curve
    - Graphs the cost curves if specified
    - Graphs the supply curve if specified
* **Partial Equilibrium:**
  + The program then computes the partial equilibrium function
  + Graphs the supply and demand graphs if specified