According to Wikipedia, "Abalone is a common name for any of a group of small to very large sea snails, marine gastropod mollusks in the family Haliotidae." To put it simply, we are taking about a shell-fish that is found in the wild and served in restaurants. Glad that they're on the menu. Right?

Abalone are indeed tasty but perhaps too appetizing for their own good. According to the Orange County Register, a California-based publication, this mollusk is a target of over-fishing, threatened with extinction. Sadly, they go well with broccoli. These concerns have spurred on the Aquarium of the Pacific in Long Beach, California to breed and study these delightful creatures and enhance our understanding of how they live in the wild.

The purpose of this Jupyter Notebook is not to sell you on Abalone as pets but to aid these scientific efforts by analyzing growth patterns. Age in years is calculated by adding 1.5 to the number of growth rings according to the UCI Machine Learning Repository. Ring count can be determined under a microscope but can it be predicted using data? Yes, but with difficulty. Available data is limited to specimen measurements in millimeters and grams along with sex. Variables affecting growth rate such as ambient conditions and specimen pedigree are not included. Acknowledging these limitations, the goal here is to assist studies that require the isolation of mature shell fish. This will be done by generating an effective minimum number of rings as calculated from data for samples that are at least 10 years old.