

Abstract Data Types (ADT)

- **An Abstract Data Type (ADT)** is an abstract concept defined by axioms which represent some data and operations on that data.
- **Abstract Data Types are focused on what, not how** (they're framed declaratively, and do not specify algorithms or data structures).
- **Common examples** include lists, stacks, sets, etc.
- **ADTs provide a way for us to formally define reusable modules** in a way that is mathematically sound, precise, and unambiguous.
- **ADTs emerged from the work of Liskov** and students on the CLU programming language in the 1970s.
- **ADTs should be FAMED.** Formal, widely Applicable, Minimal, Extensible, and Declarative.
- **ADTs should include** a human readable description, definitions, abstract signatures, and formally verifiable axioms.

For more information access: <https://medium.com/javascript-scene/abstract-data-types-and-the-software-crisis-671ea7fc72e7>

Axiom:

- 1) In mathematics or logic, an axiom is an unprovable rule or first principle accepted as true because it is self-evident or particularly useful.
- 2) A statement or proposition on which an abstractly defined structure is based.