Generic Data Type

Generics

- **Nature:**
  - Software components must be be-usable
  - Be able to work on a variety of data types but not only restricted to one.

- **"Generic" Toolbox**
  - Enables user to create a re-usable software component.

- **Benefit**
  - User can make use of it to operate with their own type of data.

Generics

- **Example-1:**
  - **Identity Function:** A function that returns the same argument which is passed to it preserving its data type.

Identity Function (Without generics)

function identity(arg: number): number {
return arg; }

Accepts and returns argument of type 'number' only.

Identity Function (With generics)

function identity<T>(arg: T): T {
return arg; }

Accepts and returns argument of any type. Hence is a generic function. (Software component)