why should I use it?

Creating software applications typically involves designing the application data and implementing operations performed on that data. Procedural programs pass data to functions, which perform the necessary operations on the data. Object-oriented software encapsulates data and operations in objects that interact with each other via the object's interface.

The MATLAB® language enables you to create programs using both procedural and object-oriented techniques and to use objects and ordinary functions together in your programs.

**Procedural Program Design**

In procedural programming, your design focuses on the steps that must execute to achieve a desired state. Typically, you represent data as individual variables or fields of a structure. You implement operations as functions that take the variables as arguments. Programs usually call a sequence of functions, each one of which is passed data, and then returns modified data. Each function performs an operation or many operations on the data.

**Object-Oriented Program Design**

The object-oriented program design involves:

* Identifying the components of the system or application that you want to build
* Analyzing and identifying patterns to determine what components are used repeatedly or share characteristics
* Classifying components based on similarities and differences

After performing this analysis, you define classes that describe the objects your application uses.

**Classes and Objects**

A class describes a set of objects with common characteristics. Objects are specific instances of a class. The values contained in an object's properties are what make an object different from other objects of the same class. The functions defined by the class (called methods) are what implement object behaviors that are common to all objects of a class.