In The Name of God

Object Oriented Programming = OOP

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Procedural programming vs. OOP

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Procedural programming is centered on "functions", but OOP is centered on "data"

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In OOP, data stores in "object". It means the orientation of this kind of programming is toward the "object".

"Object" acts like "struct" (Remember: ‘struct and field’ in procedural programming).

Example:

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>> book = struct('name',[])

book =

struct with fields:

name: []

>> book.name = 'Introduction of OOP'

book =

struct with fields:

name: 'Introduction of OOP'

>> book.writter = 'jack'

book =

struct with fields:

name: 'Introduction of OOP'

riter: ‘jack’

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What’s the difference between ‘Object’ and ‘Struct’? ‘Object’ has data like ‘Struct’ (it means that like ‘fields’ for ‘struct’, we have data for ‘Object’) and in addition, ‘Object’ has extra features as “functions” for operating on data. In MATLAB, a function defined inside a class is called ‘methods’.

Constructor: is a method that is used to create an object. (the name of this method must be equal with the name of the class).

Class: is the overall plan of the program that says how the program act (like flowchart in computer programming or like an architectural drawing in construct a building. In this example, house is an object). So, class is a template for everything.

Every time you change your class file you should type ‘clear classes’ at the command prompt otherwise MATLAB will not be able to use your changes.