



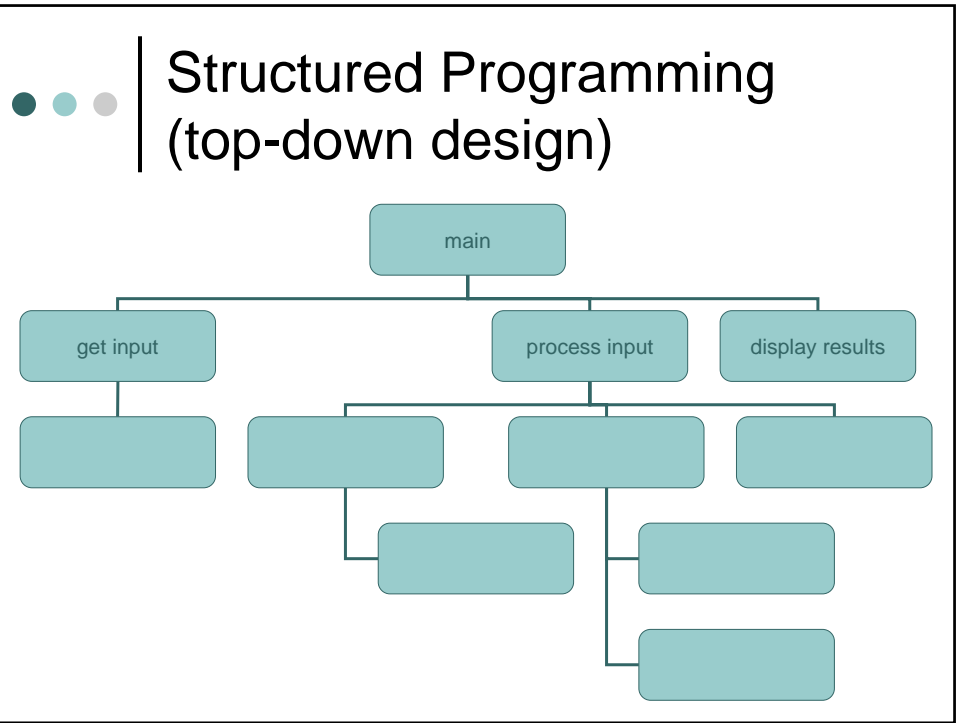
Visual Basic

An object-oriented programming language



Program development Life cycle

- Analyze the problem
- Design an algorithm to solve the problem (flow chart, pseudo-code...)
- Test the algorithm
- Write the code from the algorithm
- Test and debug the code
- Maintain the program
- The program is eventually obsolete



- ## Control Structure
- Sequential
 - Selection (branching)
 - If Then Else
 - Repetition (loops)
 - do while (evaluates first)
 - do until (evaluates at the end)

● ● ● | Object-oriented

- object – anything that reads, stores or manipulates data
- class – objects with same attributes and behavior
- subclasses and superclasses: a fire truck is a subclass of truck, a vehicle is a superclass of truck.
- attributes - identifying characteristics of an object

● ● ● | Attributes and methods

- an **operation** is an action that reads or manipulates the data of an object
 - in OOD called a **service**
 - in OOP called a **method**
- for an object to do something, it must be sent a **message**. A message has two parts: the name of the object it's being sent to and the operation to be performed
 - in OOD called a **request for service**
 - in OOP called an **event**



Don't reinvent the wheel

- Encapsulation (information hiding)
- Inheritance
- Polymorphism
- Rapid Application Development



Calculating Sales Commission



We will follow project1 in the book to calculate a 15% sales commission.



In the next class, you will use the same steps to convert miles to kilometers.