

1 Basics

C# is case sensitive !!!

~~Variables~~

a) Variables

- var → a keyword to declare method level variables without specifying a data type (basically it checks whats on the other side of "=")
- dynamic - a keyword used for a variable that escapes type checking at compile-time and resolves its type at run-time

Boxing → converting value type into reference type

Value type → a data type that holds a data value within its own memory. Variables of these datatypes directly contain values. F.E.: (bool, int, float, struct, long, ...)

Reference type → instead of the value the reference type holds an address where the value is stored (basically contains a pointer to another memory location. F.E. (string, array, class))

b) Loops

- while loop ~~repeats~~ checks a condition (bool) and then executes the statements within the loop, then comes back to the boolean condition. This process repeats until bool = false.

do → works similarly to the while loop except the boolean condition is checked at the end of the loop which in practice means the statements within the loop will execute at least once.

for → also works similarly to the while loop except it contains initialization and condition modification, which means we want to use for when we know exactly how many times the contents of the loop should execute.

for each → is used to iterate through items on the list. ~~Maps to Java~~ F.E. Arrays. It requires "in" keyword.

List <T> - collection of objects that can be accessed ~~and modified~~ by index, which then can be set, modified or searched. It comes under System. ~~Collection~~ Collections. Generic namespace.