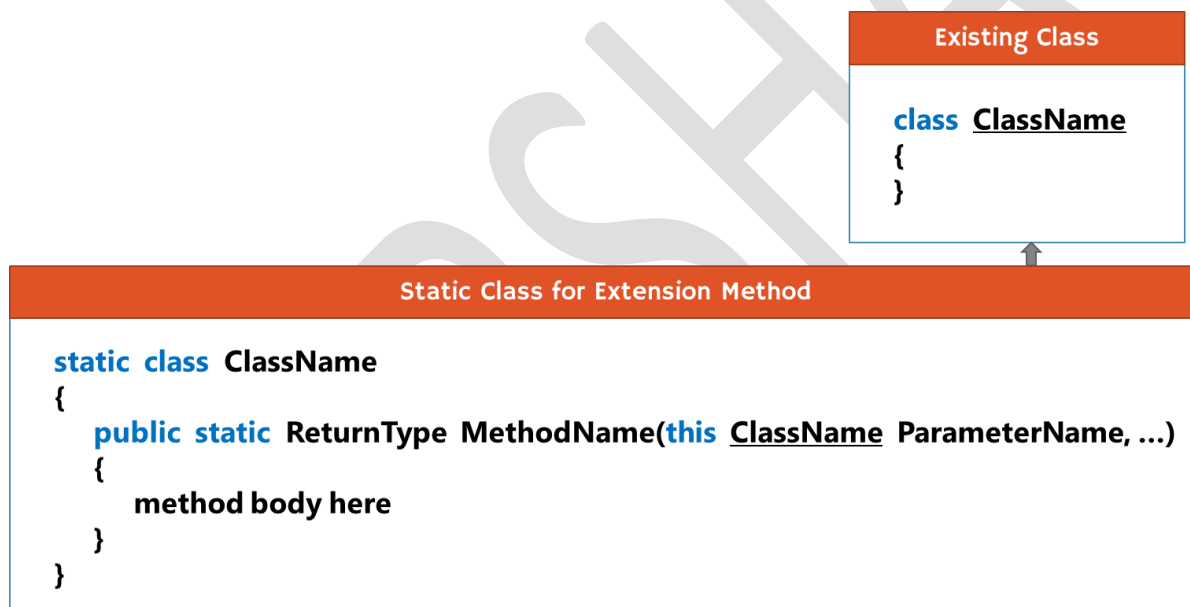


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# Extension Methods

## Introducing Extension Methods

- › Extension method is a method injected (added) into an existing class (or struct or interface), without modifying the source code of that class (or struct or interface).



- › The developer of ClassLibrary, creates a class with a set of methods.
  - › The consumer of ClassLibrary, can add additional methods to the same class, without modifying the source code of the ClassLibrary.
- › You can add additional methods to pre-defined classes / structures such as String, Int32, Console etc.
- › You must create a static class with a static method; that it will be added as a non-static method to the specified class.
- › This feature is introduced in C# 3.0.

- › The first parameter of extension must be having "this" keyword; followed by the class name / structure name, to which you want to add the extension method.
  - › Ex: this ClassName parameter
- › The parameter (with 'this' keyword) represents the current object, just like "this" keyword in the instance methods.
- › Extension method can have any no. of additional parameters, where the "this" keyword parameter is must.
- › Extension method does not support method overriding. That means, extension method's signature can't be same as any existing method.
- › You can also add extension methods to sealed class.
- › 'Extension Methods' concept can't be used to create fields, properties, or events.
- › The static class of extension method can't be inner class.
- › The namespace in which the static class of extension method is created, must be imported in order to call the extension method as non-static method.