

Possible multiple enumeration of IEnumerable



Redirection Notice

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Consider the following code snippet:

```
IEnumerable<string> names = GetNames();
foreach (var name in names)
    Console.WriteLine("Found " + name);
var allNames = new StringBuilder();
foreach (var name in names)
    allNames.Append(name + " ");
```

Assuming that `GetNames()` returns an `IEnumerable<string>`, we are, effectively, doing extra work by enumerating this collection twice in the two `foreach` statements. If `GetNames()` results in a database query, you end up doing that query twice, while both times getting the same data.

This kind of problem can be easily fixed – simply force the enumeration at the point of variable initialization by converting the sequence to an array or a list, e.g.:

```
IEnumerable<string> names = GetNames().ToList();
```

The rest of your code can stay the same, because both array and list types implement the `IEnumerable` interface.