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⚡ Primary Constructors in C#

Primary constructors were introduced in C# 12 (.NET 8)

It is a concise and clean way to write a parametrized constructor

The primary constructor's parameters have class or struct level scope

If the primary constructor's parameters are accessed in a method within the class/struct, the compiler creates hidden fields to represent each parameter

You can use a primary constructor to do different operations:

- Initialize Properties or Fields
- Initialize base class
- Specify Parameters in Dependency Injection

The third operation is particularly common in [ASP.NET](#) Core, when injecting dependencies in controllers or services)

Tell us your experience on Primary Constructors in the comments.



Repost to spread the knowledge of C# and .NET

Parametrized Constructor

@AramT87

```
public class QuestionModel
{
    public int Id { get; set; }
    public string Title { get; set; }
    public string Description { get; set; }

    public QuestionModel(int id, string title, string description)
    {
        Id = id;
        Title = title;
        Description = description;
    }
}
```

Primary Constructor

C# 12

```
public class QuestionModel(
    int id,
    string title,
    string description)
{
    public int Id { get; set; } = id;
    public string Title { get; set; } = title;
    public string Description { get; set; } = description;
}
```

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I use primary constructors for DI, and I don't fear about parameters not being readonly. Why?

Because 99% won't ever try to re-assign them. I have never seen someone injecting

IOrderService and after switching to a new implementation with a new assignment.

Also, I use static code analysis packages and Meziantou package raises a compiler error if you try to-reassign the value of primary constructor param

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[Anton Martyniuk](#) it is a great strategy to guarantee code quality, and good use for the primary ctors. Thanks for the comment.

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[Aram Tchekrekjian](#) do you use Primary Constructors for DI ?

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