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Static Classes

Introducing Static Classes

- › Static class is a class that can contain only "static members".
- › If you don't want even single 'instance member' (non-static member), then use 'static class'.
- › We can avoid accidental creation of object for the class, by making it as "static class".
- › Use static classes to create ONLY static members (static fields, static methods etc.)

Static Class

```
static class ClassName
{
    static fields
    static methods
    static constructors
    static properties
    static events
}
```

Non-Static (Normal) Class

```

class ClassName
{
    static fields           instance fields
    static methods         instance methods
    static constructors     instance constructors
    static properties      instance properties
    static events          instance events
                           destructors
}
  
```

- › Use non-static classes to create both instance & static members [or] only instance members.

| Class Type | Can Inherit from Other Classes | Can Inherit from Other Interfaces | Can be Inherited | Can be Instantiated |
|----------------|--------------------------------|-----------------------------------|------------------|---------------------|
| Normal Class | Yes | Yes | Yes | Yes |
| Abstract Class | Yes | Yes | Yes | No |
| Interface | No | Yes | Yes | No |
| Sealed Class | Yes | Yes | No | Yes |
| Static Class | No | No | No | No |

| Type | 1. Non-Static Fields | 2. Non-Static Methods | 3. Non-Static Constructors | 4. Non-Static Properties | 5. Non-Static Events | 6. Non-Static Destructors | 7. Constants |
|----------------|----------------------|-----------------------|----------------------------|--------------------------|----------------------|---------------------------|--------------|
| Normal Class | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Abstract Class | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Interface | No | No | No | No | Yes | No | No |
| Sealed Class | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Static Class | No | No | No | No | No | No | Yes |

| Type | 8. Static Fields | 9. Static Methods | 10. Static Constructors | 11. Static Properties | 12. Static Events | 13. Virtual Methods | 14. Abstract Methods | 15. Non-Static Auto-Impl Properties | 16. Non-Static Indexers |
|----------------|------------------|-------------------|-------------------------|-----------------------|-------------------|---------------------|----------------------|-------------------------------------|-------------------------|
| Normal Class | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| Abstract Class | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Interface | No | No | No | No | No | No | Yes | Yes | No |
| Sealed Class | Yes | Yes | Yes | Yes | Yes | No | No | Yes | Yes |
| Static Class | Yes | Yes | Yes | Yes | Yes | No | No | No | No |