https://github.com/JusterZhu/AvaloniaCypher

# Property 属性

```
public class Button
{
    private string caption;

    public string Caption
    {
        get
        {
            return caption;
        }
        set
        {
            caption = value;
            Repaint();
        }
    }
}
```

- 智能字段 "Smart field"
- 访问器 Accessor(s)
- 访问控制 Access Control

```
Button b = new Button();
b.Caption = "OK";
string s = b.Caption;
```

# Property 属性

```csharp
public class Button
{
    public string Title { get; private set;}
}
```

自动属性 Auto Properties
编译器生成后置字段 Generated Field

```csharp
public class Button
{
    [CompilerGenerated]
    [DebuggerBrowsable(DebuggerBrowsableState.Never)]
    private string <Title>k__BackingField;

    public string Title
    {
        [CompilerGenerated]
        get
        {
            return <Title>k__BackingField;
        }
        [CompilerGenerated]
        private set
        {
            <Title>k__BackingField = value;
        }
    }
}
```

# Property 属性

## Partial Property

```csharp
public partial class Button
{
    public partial string Title { get; }
}

public partial class Button
{
    public partial string Title => "";
}
```

```csharp
public class Button
{
    public string Title
    {
        get
        {
            return "";
        }
    }
}
```

# *field* keyword

```csharp
public class Person
{
    public string? FirstName
    {
        get;
        set => field = value?.Trim();
    }
}
```

```csharp
[NullableContext(2)]
[Nullable(0)]
public class Person
{
    [CompilerGenerated]
    [DebuggerBrowsable(DebuggerBrowsableState.Never)]
    private string <FirstName>k__BackingField;

    public string FirstName
    {
        [CompilerGenerated]
        get
        {
            return <FirstName>k__BackingField;
        }
        set
        {
            <FirstName>k__BackingField = ((value != null) ? value.Trim() : null);
        }
    }
}
```

# *field* keyword binding

```csharp
public sealed class MainViewModel : ObservableObject
{

    3 usages    Weihan Li

    public string? Input
    {
        get => $"[{field}]";
        set
        {
            field = value?.Trim();
            OnPropertyChanged();
        }
    }
}
```

示例

**Microsoft**

# 课程回顾

1. **property** 各种用法
2. **field** 关键词示例

# Thank You