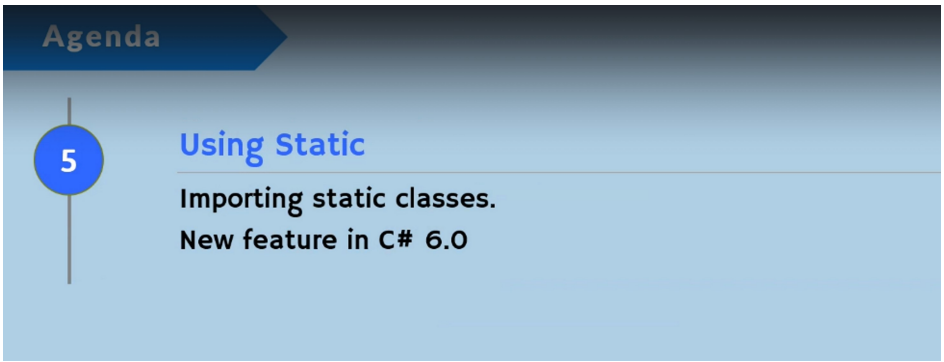
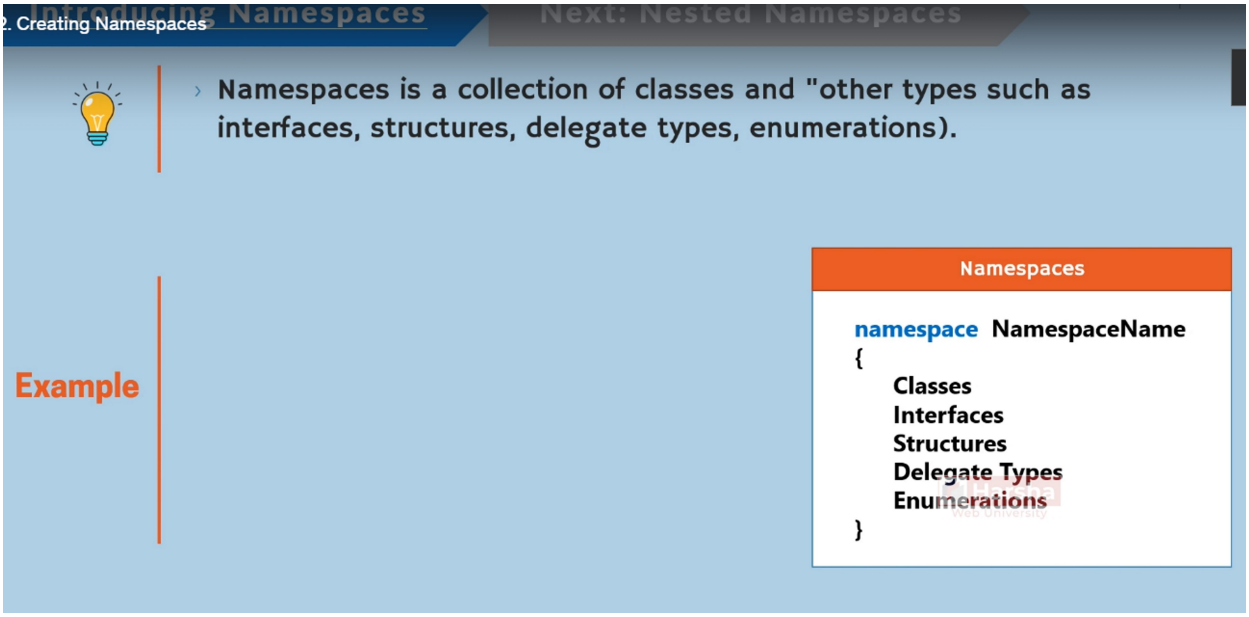
Sec 12 : Namespaces

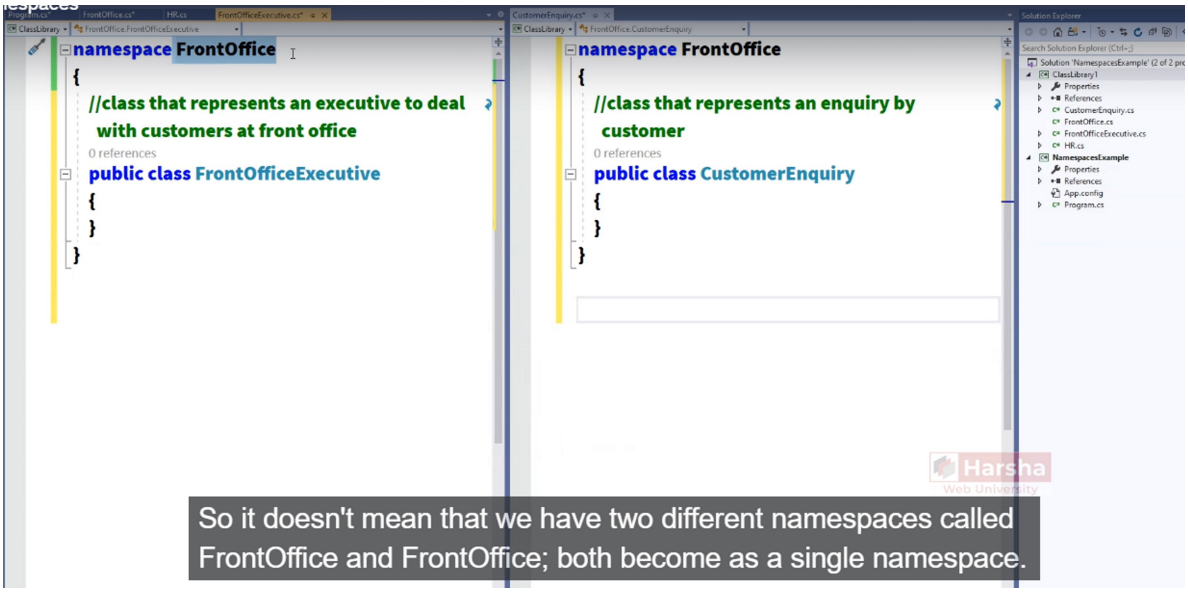
14 July 2024 09:21



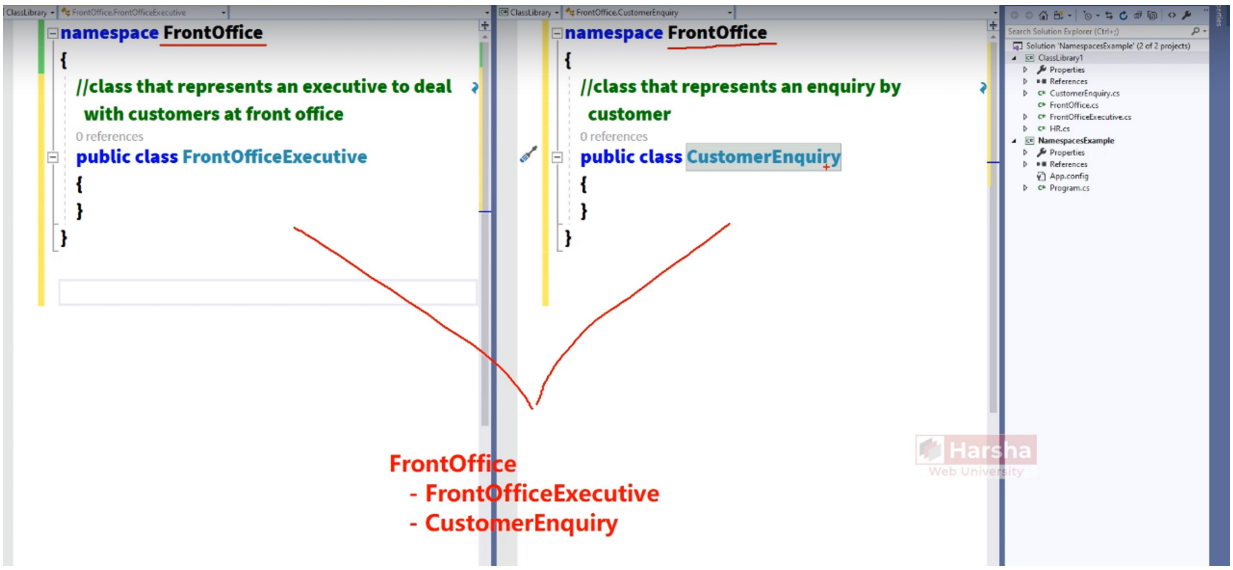
In real time projects, the main goal of namespaces is to group of all classes and other types as a single unit that are meant for specific purpose.

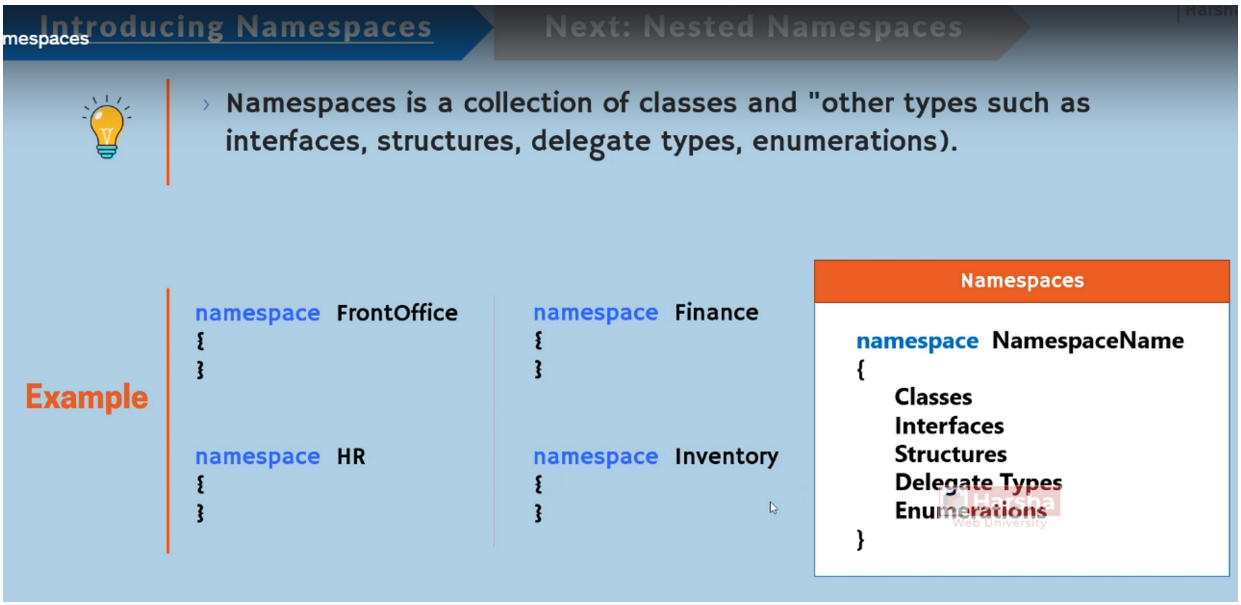


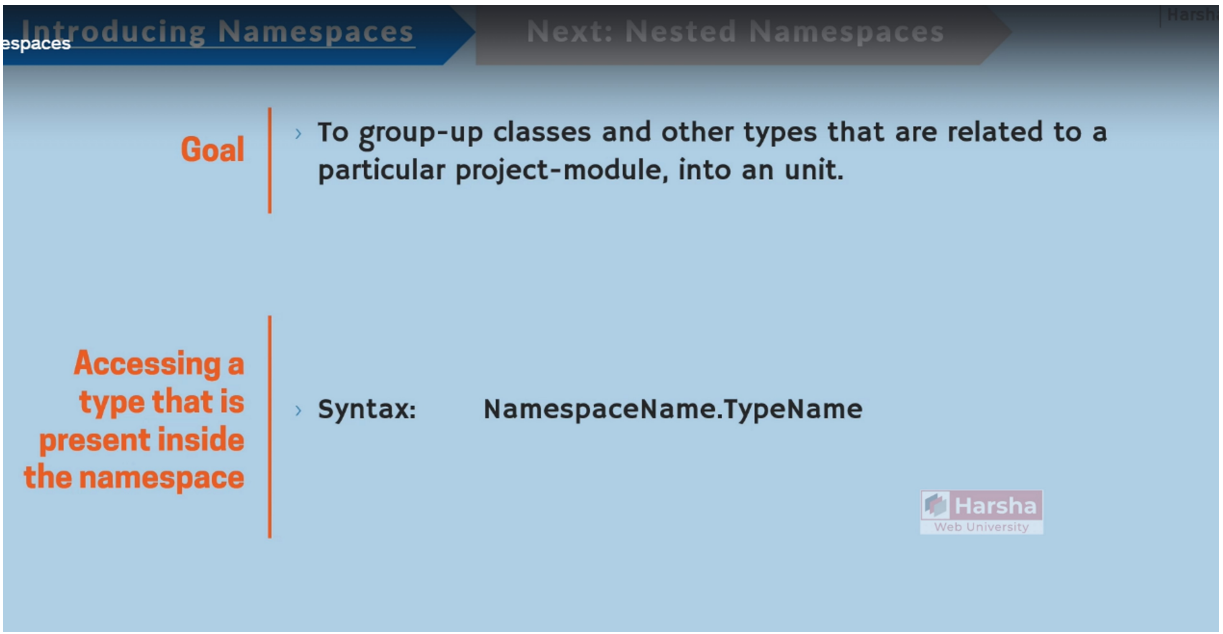
In practical projects, it is recommended to write every interface and every class as a separate file.

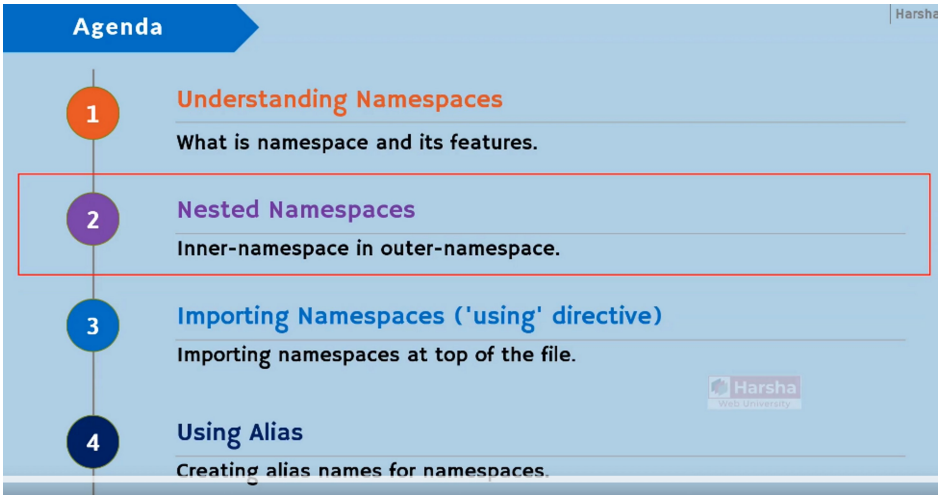


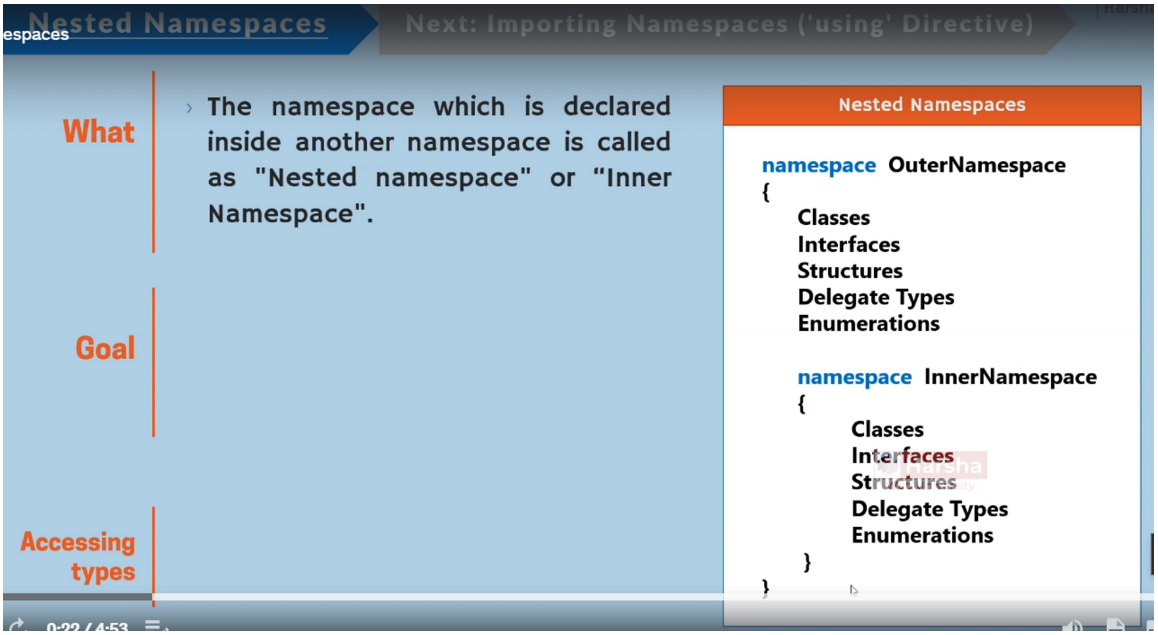
So inside the same namespace, both classes will exist.


namespace FrontOffice
{
//class that represents an executive to deal with customers at front office
0 references
public class FrontOfficeExecutive
{
}
}
namespace FrontOffice
{
//class that represents an enquiry by customer
0 references
public class CustomerEnquiry
{
}
}
FrontOffice
- FrontOfficeExecutive
- CustomerEnquiry
Harsha
Web University

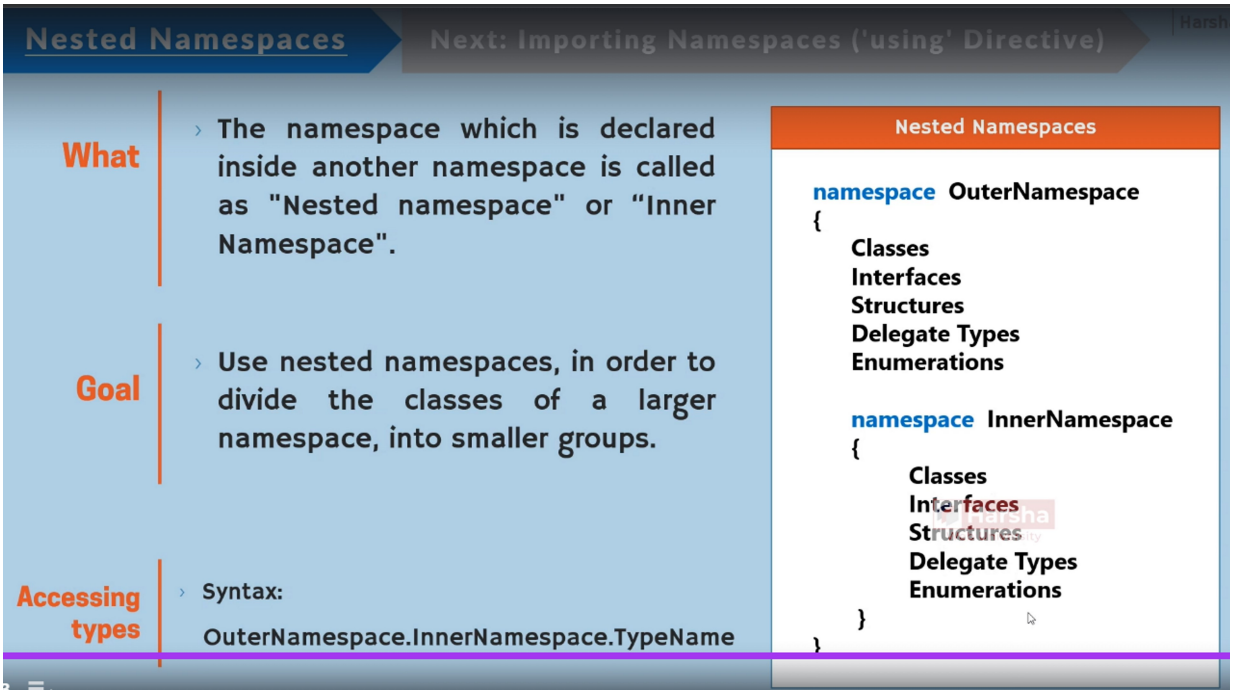

Introducing Namespaces
Next: Nested Namespaces
Namespaces is a collection of classes and "other types such as interfaces, structures, delegate types, enumerations).
Example
namespace FrontOffice
{
}
namespace Finance
{
}
namespace HR
{
}
namespace Inventory
{
}
Namespaces
namespace NamespaceName
{
Classes
Interfaces
Structures
Delegate Types
Enumerations
}

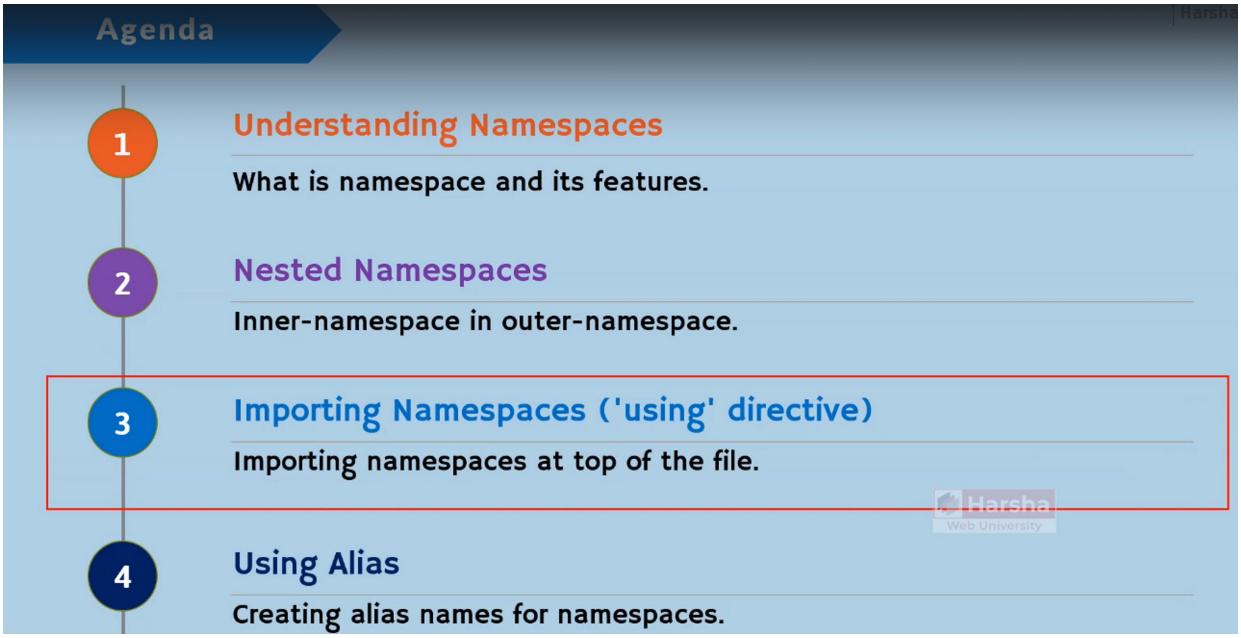

espaces
Introducing Namespaces
Next: Nested Namespaces
Goal
To group-up classes and other types that are related to a particular project-module, into an unit.
Accessing a type that is present inside the namespace
Syntax: NamespaceName.TypeName
Harsha
Web University


Agenda
1
Understanding Namespaces
What is namespace and its features.
2
Nested Namespaces
Inner-namespace in outer-namespace.
3
Importing Namespaces ('using' directive)
Importing namespaces at top of the file.
4
Using Alias
Creating alias names for namespaces.

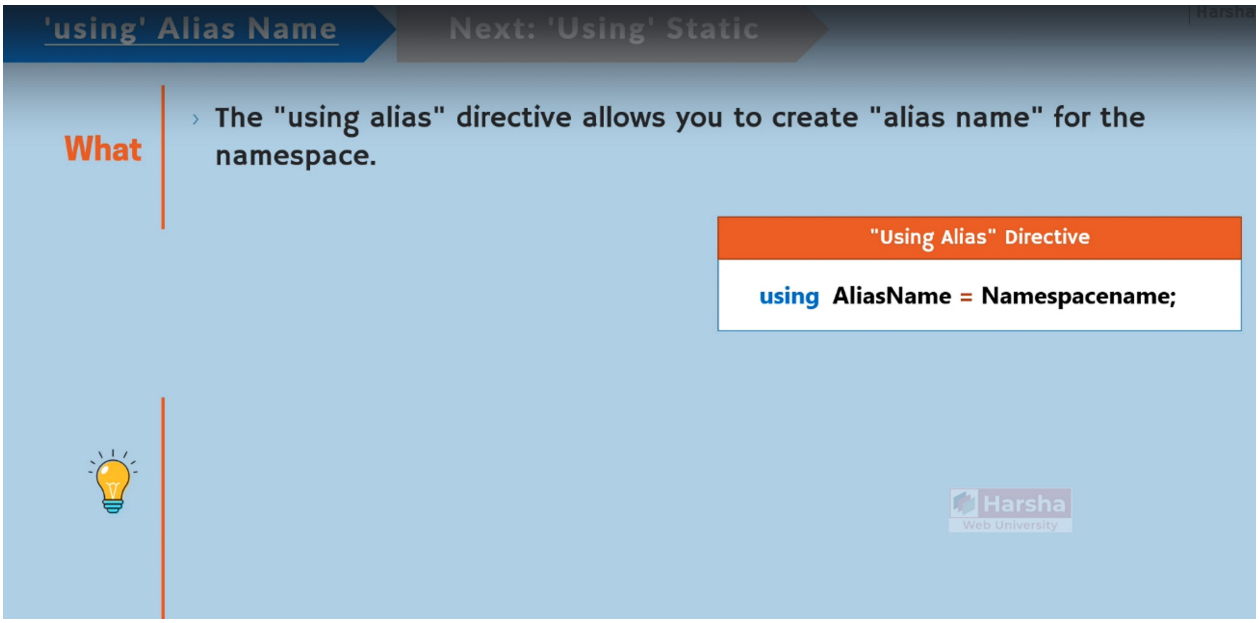


If you have a large set of classes inside the same namespace; in order to subgroup them; that means a small unit of classes; we can use the nested namespace.

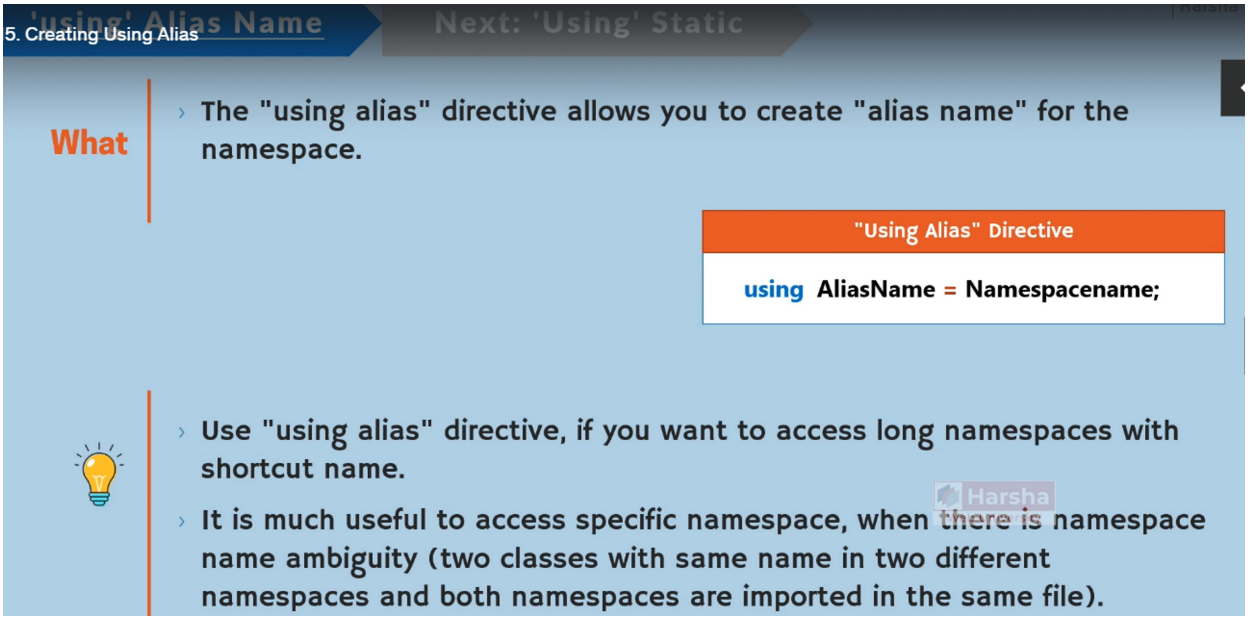


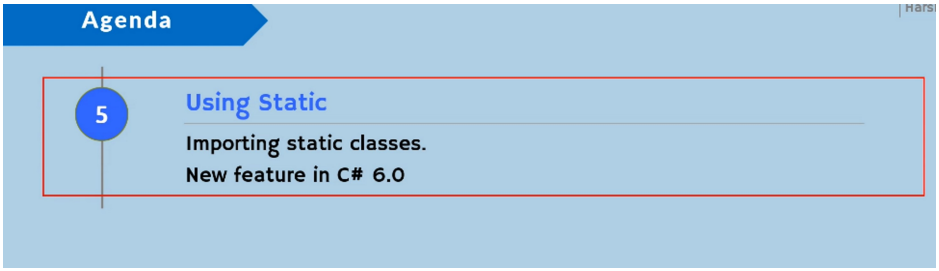

Agenda
1
Understanding Namespaces
What is namespace and its features.
2
Nested Namespaces
Inner-namespace in outer-namespace.
3
Importing Namespaces ('using' directive)
Importing namespaces at top of the file.
4
Using Alias
Creating alias names for namespaces.
Harsha
Web University

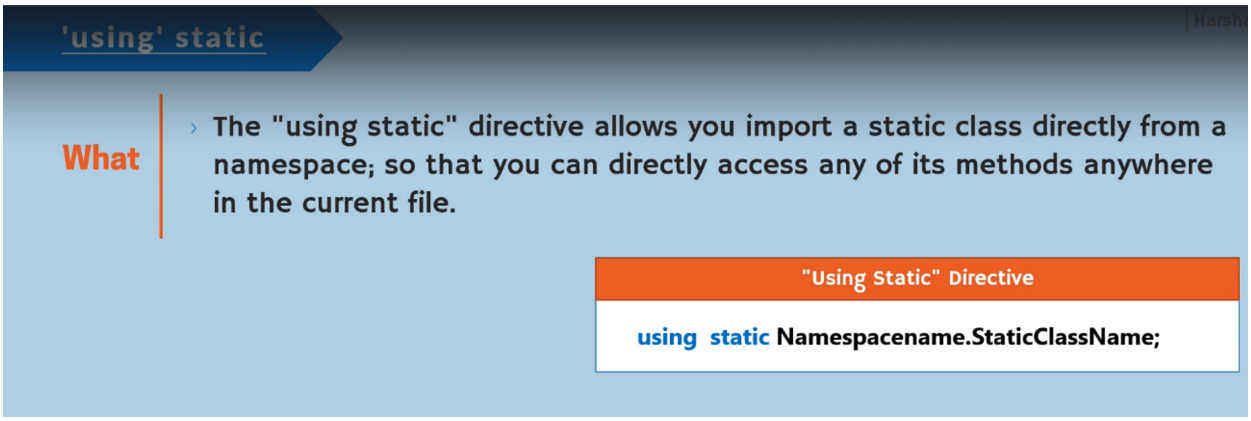

114. Importing Namespaces
Importing Namespaces ('using' Directive)
Next: 'Using' Alias Name
What
The "using" is a directive statement (top-level statement) that should be placed at the top of the file, which specifies the namespace, from which you want to import all the classes and other types.
Using Directive
using Namespacename;
When you import a namespace, you can directly access all of its classes and other types (but not inner namespaces).
The "using directives" are written independently for every file.
"One using directive" can import "one namespace" only.
Harsha



The Alias names that are declared in one file, are not accessible or unknown to other files.


5. Creating Using Alias
'using' Alias Name
Next: 'Using' Static
What
The "using alias" directive allows you to create "alias name" for the namespace.
"Using Alias" Directive
using AliasName = Namespacename;
Use "using alias" directive, if you want to access long namespaces with shortcut name.
It is much useful to access specific namespace, when there is namespace name ambiguity (two classes with same name in two different namespaces and both namespaces are imported in the same file).


Agenda
5
Using Static
Importing static classes.
New feature in C# 6.0


'using' static
What
The "using static" directive allows you import a static class directly from a namespace; so that you can directly access any of its methods anywhere in the current file.
"Using Static" Directive
using static Namespacename.StaticClassName;


public static void Beep(int frequency, int duration);
public static void MoveBufferArea(int sourceLeft, int sourceTop, int sourceWidth, int sourceHeight,
That means all the members of a static class is only static members, which includes Static Fields, Static Properties, Static Methods and Static Events.

'using' static

What

- The "using static" directive allows you import a static class directly from a namespace; so that you can directly access any of its methods anywhere in the current file.

"Using Static" Directive
`using static Namespacename.StaticClassName;`

- Use the "using static" directive to access methods of static class easily, without repeating the class name each time.