

1 System.NullReferenceException Class

```
2 [ILAsm]  
3 .class public serializable NullReferenceException extends  
4 System.SystemException  
  
5 [C#]  
6 public class NullReferenceException: SystemException
```

7 Assembly Info:

- 8 • *Name:* mscorlib
- 9 • *Public Key:* [00 00 00 00 00 00 00 00 04 00 00 00 00 00 00]
- 10 • *Version:* 2.0.x.x
- 11 • *Attributes:*
 - 12 ○ CLSCompliantAttribute(true)

13 Summary

14 Represents the error that occurs when there is an attempt to dereference a null object
15 reference.

16 Inherits From: System.SystemException

17

18 **Library:** BCL

19

20 **Thread Safety:** All public static members of this type are safe for multithreaded operations.
21 No instance members are guaranteed to be thread safe.

22

23 Description

24 [*Note:* Applications throw the `System.ArgumentNullException` rather than
25 `System.NullReferenceException`.
26

27 The following CIL instructions throw `System.NullReferenceException`:

- 28 • callvirt
- 29 • cpblk
- 30 • cpobj
- 31 • ldelema
- 32 • ldelem.<type>
- 33 • ldfld
- 34 • ldflda

- 1 • lindic.<type>
- 2 • liden
- 3 • stelem.<type>
- 4 • stind.<type>
- 5 • stfld
- 6 • throw
- 7 • unbox
- 8 • initblk
- 9]

10 Example

11 The following example demonstrates an error that causes a
12 System.NullReferenceException exception.

```
13 [C#]
14
15 using System;
16 public class Ints {
17     public int[] myInts;
18 }
19 public class NullRefExample {
20     public static void Main() {
21         Ints ints = new Ints();
22         try {
23             int i = ints.myInts[0];
24         }
25         catch( NullReferenceException e ) {
26             Console.WriteLine( "Caught error: {0}.", e);
27         }
28     }
29 }
```

30
31 The output is

```
32
33 Caught error: System.NullReferenceException: Object reference not set to an
34 instance of an object.
35     at NullRefExample.Main().
36
```

37

1 `NullReferenceException()` Constructor

```
2 [ILAsm]  
3 public rtspecialname specialname instance void .ctor()  
4 [C#]  
5 public NullReferenceException()
```

6 **Summary**

7 Constructs and initializes a new instance of the `System.NullReferenceException` class.

8 **Description**

9 This constructor initializes the `System.NullReferenceException.Message` property of
10 the new instance to a system-supplied message that describes the error, such as "The
11 value 'null' was found where an instance of an object was required." This message takes
12 into account the current system culture.

13
14 The `System.NullReferenceException.InnerException` property is initialized to `null`.

15

1 NullReferenceException(System.String)

2 Constructor

```
3 [ILAsm]  
4 public rtspecialname specialname instance void .ctor(string message)  
5 [C#]  
6 public NullReferenceException(string message)
```

7 Summary

8 Constructs and initializes a new instance of the `System.NullReferenceException` class.

9 Parameters

Parameter	Description
<i>message</i>	A <code>System.String</code> that describes the error. The content of <i>message</i> is intended to be understood by humans. The caller of this constructor is required to ensure that this string has been localized for the current system culture.

10

11 Description

12 This constructor initializes the `System.NullReferenceException.Message` property of
13 the new instance using *message*. If *message* is null, the
14 `System.NullReferenceException.Message` property is initialized to the system-
15 supplied message provided by the constructor that takes no arguments. The
16 `System.NullReferenceException.InnerException` property is initialized to null.

17

1 NullReferenceException(System.String, 2 System.Exception) Constructor

```
3 [ILAsm]  
4 public rtspecialname specialname instance void .ctor(string message, class  
5 System.Exception innerException)  
  
6 [C#]  
7 public NullReferenceException(string message, Exception innerException)
```

8 Summary

9 Constructs and initializes a new instance of the System.NullReferenceException class.

10 Parameters

Parameter	Description
<i>message</i>	A System.String that describes the error. The content of <i>message</i> is intended to be understood by humans. The caller of this constructor is required to ensure that this string has been localized for the current system culture.
<i>innerException</i>	An instance of System.Exception that is the cause of the current Exception. If <i>innerException</i> is non-null, then the current Exception was raised in a catch block handling <i>innerException</i> .

11 12 Description

13 This constructor initializes the System.NullReferenceException.Message property of
14 the new instance using *message*, and the
15 System.NullReferenceException.InnerException property using *innerException*. If
16 *message* is null, the System.NullReferenceException.Message property is initialized
17 to the system-supplied message provided by the constructor that takes no arguments.

18
19 [Note: For information on inner exceptions, see System.Exception.InnerException.]
20
21

22