



07:45:12 PDT

**Question:** Hi there, have no picture and no sound. Did it start already?

**Answer:** Hey AwesomeDevsigner! We're just doing sound checks now. You should see a video and hear music. Please refresh your browser.

---

07:45:23 PDT

**Question:** Hi, I am from Indonesia!

**Answer:** hey Chandra! Welcome!

---

07:45:56 PDT

**Question:** Hiya people!!!!

**Answer:** Hiya!

---

07:46:20 PDT

**Question:** Hello from Romania, excited to start

**Answer:** Hey Maximilian! Glad you're here!

---

07:47:54 PDT

**Question:** Hello from Germany!

**Answer:** Willkommen

---

07:56:28 PDT

**Question:** Whew.. made it.

**Answer:** 🤗 Nice to see you!

---

07:56:41 PDT

**Question:** hi, everyone Qasim from Pakistan

**Answer:** Fantastic! Great to see you!

---

07:57:06 PDT

**Question:** Greetings from Macedonia, ready to start too.

**Answer:** Wonderful to see you online! Thanks for joining us!

---

07:57:14 PDT

**Question:** Hello guys this Pratik from India, Bangalore

**Answer:** Nice to see you!

---

07:57:27 PDT



**Question:** hey, everyone, so glad to be here! From Canada, currently in Pakistan on visit! First time on MVA!

**Answer:** We're so glad you're here , too! Welcome!

---

07:57:35 PDT

**Question:** Hi from Denmark!

**Answer:** hello Alex!

---

07:57:43 PDT

**Question:** Hello I m from Pakistan

**Answer:** Welcome Sarwaan!

---

07:58:17 PDT

**Question:** Hello from Romania, Iozsef, very excited to start

**Answer:** Hey Iozsef! We're very excited, too!

---

07:59:40 PDT

**Question:** Hello from Mexico!

**Answer:** Bienvenido

---

07:59:49 PDT

**Question:** Hello from Alabama!

**Answer:** Howdy Daran!

---

08:01:05 PDT

**Question:** hey michael!!!

**Answer:** Hi!

---

08:01:09 PDT

**Question:** Hi Mr.Frank Gartland I'm so exited about this jump start, let it begin!

**Answer:** hey Almaazon! We're excited, too!

---

08:01:29 PDT

**Question:** Hello guys this Sajjan from India/Chennai

**Answer:** Welcome, so glad you're here!

---

08:02:01 PDT

**Question:** Wow, a whole world of people wanting to learn C# !

**Answer:** And if C# doesn't answer your needs, there is always HTML5 🤖

---



---

08:02:17 PDT

**Question:** Greetings from Bolivia, =)

**Answer:** Bienvenido

---

08:03:10 PDT

**Question:** Hey guys Ireland here

**Answer:** Welcome. So glad you're here1

---

08:03:44 PDT

**Question:** Hello everybody, this is Sunny. Greetings from New Delhi, India.

**Answer:** Hey Sunny! So glad you're joining us today!

---

08:04:30 PDT

**Question:** Has the session started?I am unable to hear any audio

**Answer:** Just now starting... if you're not seeing Jerry and Daren -- Please refresh your browser!

---

08:05:13 PDT

**Question:** what PCs are they using I wonder? they look cool!

**Answer:** Those are Planar 27" touch displays. Nice!

---

08:06:51 PDT

**Question:** Hi i am from Italy

**Answer:** Benvenuti

---

08:07:56 PDT

**Question:** Hello from Saudi Arabia

**Answer:** Welcome Faris! So glad you're here!

---

08:08:36 PDT

**Question:** Hello from Paris!

**Answer:** Bienvenue!

---

08:08:43 PDT

**Question:** Hello from London

**Answer:** Welcome Martin!

---



08:09:28 PDT

**Question:** Hi, I am from South Africa...

**Answer:** Hi! I will be in Durbin next month for Tech Ed, will you be there?

---

08:10:34 PDT

**Question:** Amazing to see another Jump Start with people from so many different countries - MVA Rocks!!

**Answer:** Thanks Steve... Glad you're enjoying all the great things we're doing!

---

08:10:52 PDT

**Question:** How many minutes till it starts?

**Answer:** Refresh your screen [F5]

---

08:10:55 PDT

**Question:** Hello from Kazakhstan! Great music

**Answer:** Thanks! Welcome!

---

08:11:27 PDT

**Question:** Hi Mr. Frank, All set to take up the session . . . !

**Answer:** Hey tafelmusik! So glad you're here!

---

08:16:33 PDT

**Question:** Hello from Sweden...!

**Answer:** Welcome Qasim! Glad you're here!

---

08:17:34 PDT

**Question:** Any update on when the session is due to start?

**Answer:** We are started! Please refresh your browser.

---

08:17:58 PDT

**Question:** Michael, does it not say on the green screen - Please consult the FAQ or HELP chat in the right. I am asking for HELP or does it not say I can do that?

**Answer:** Yes, you can 😊 Just advising everyone to check FAQ first if the answer is already there...

---

08:19:13 PDT

**Question:** what is difference between polymorphism and inheritance?

**Answer:** Inheritance gives you traits of parent object. Polymorphism enables multi-behaviors from a base object type

---

08:19:50 PDT



**Question:** I see HTML and JavaScript people

**Answer:** We typically help the C# community 😊

---

08:20:18 PDT

**Question:** Are these slides made available to us? If so, how do we get them?

**Answer:** Links to content is found in FAQ

---

08:20:21 PDT

**Question:** I am 14 years old and have already published an app in the store which has received 70+ downloads in 13 days

**Answer:** This is fantastic! Great to see this Pratik--nice work!

---

08:20:36 PDT

**Question:**

> *Quoted question:* I am 14 years old and have already published an app in the store which has received 70+

> *Quoted answer:* This is fantastic! Great to see this Pratik--nice work!

**Answer:** CONGRATS!

---

08:20:39 PDT

**Question:** On pins and needles...

**Answer:** Hello Crank211!

---

08:21:06 PDT

**Question:** Good morning! This will be my intro to C#.

**Answer:** buckle up! The first module is introductory and we will ramp up quickly today. Enjoy!

---

08:21:19 PDT

**Question:** Is multiple inheritance allowed in c#?

**Answer:** No

---

08:21:27 PDT

**Question:** Hey Frank I'm Zeeshan from Italy

**Answer:** Hey Zeeshan! Glad you're here!

---

08:21:59 PDT

**Question:** Looking forward to another great session. Love these Jump starts

**Answer:** hey RobertA... So glad you're here. Great to see you online again...

---

08:22:03 PDT



**Question:** Thanks Michael!

**Answer:** Your welcome!

---

08:22:31 PDT

**Question:** Is Abstraction not a part of OOP...Please advice.

**Answer:** Abstraction is essential to OOP

---

08:22:41 PDT

**Question:** Brazil is here!!!

**Answer:** Nice! Glad to see you again, Dio1

---

08:23:17 PDT

**Question:** hello i'm marcin falinski and welcome from gdynia Poland

**Answer:** Nice to have you hear today 😊

---

08:24:14 PDT

**Question:** Frank...I didn't get the answer....Is ABSTRACTION a part of OOP??

**Answer:** Abstraction is a vital part of OOP

---

08:24:20 PDT

**Question:** Hi nice agenda!

**Answer:** LOTS more, too! 😊

---

08:24:53 PDT

**Question:** @Frank - All the Jump Starts where great!

**Answer:** Thanks for saying so! We love delivering them for you!

---

08:25:31 PDT

**Question:** Hello! Just wondering are you guys going to talk a little bit about SOLID principle?

**Answer:** I don't think SOLID is on the agenda...

---

08:26:38 PDT

**Question:** is there any object in C# that is not inherited

**Answer:** Everything inherits from object. The only object that does not inherit from object is object 😊

---

08:26:58 PDT



**Question:** Hello I am Arun Bajaj from PA

**Answer:** Hey Arun! Thanks for joining us!

---

08:28:12 PDT

**Question:** hello I am form INDIA

**Answer:** Hello Prave!

---

08:28:43 PDT

**Question:** Hi, I am trying the voucher code ProgC#Jump and it is stating it is invalid?

**Answer:** Yes, the code will be working shortly. I'll post a note here once it's ready to go.

---

08:28:58 PDT

**Question:** Thanks Michael

So if I'm not wrong it's implemented by Encapsulation...right?

**Answer:** Abstraction is actually the ability to define the properties and behaviors shared by common types in an object hierarchy. It is *not* implemented by encapsulation. It is implemented by what is found in the base class

---

08:30:18 PDT

**Question:** What are the benefits of Object?

**Answer:** It is the Father|Mother of all objects. Thus any type can be passed into a method argument when the type of the parameter is object.

---

08:31:39 PDT

**Question:** question 1: Why MS provided string & String differently... I know framework support String with IL but why?? please answer

**Answer:** string is simply C# keyword to alias System.String.

---

08:33:57 PDT

**Question:** What is the default value of value types?

**Answer:** Excellent question! The simple answer is THERE IS NO DEFAULT. It is imperative that you initialize a Value-Type. There is also a way for custom Value Types to define initializers for default values

---

08:34:06 PDT

**Question:** Hello from India!

**Answer:** Welcome Ravimama! So glad you're here!

---

08:34:54 PDT

**Question:** Is there anywhere we can download the PPT?

**Answer:** Please check the FAQ...

---



08:35:10 PDT

**Question:** whats the difference between reference types and pointer types?

**Answer:** reference types refer to a logical location in memory (that can be moved around by System.GC). Pointers refer to ACTUAL memory locations, and are thus discouraged from use in favor of reference types

---

08:36:02 PDT

**Question:** Nice to see you again Frank!!!

**Answer:** yes! So glad you're here again, Dio1

---

08:36:35 PDT

**Question:** ponter why are unsafe but in c++ provide many type of pointer in c# also same way of pointer

**Answer:** C# is designed to compile exclusively to .NET Runtime. C++ was not designed to be exclusive to .NET Runtime.

---

08:37:14 PDT

**Question:** Hello from Miami, Thanks a lot for the HTML5, CSS3, JS Jump Start, it really helps to pass 70-480 exam

**Answer:** Congratulations Angel! Hope you're using MVA to prepare for 481 and 482 as well. Of course, glad you're excited about the C# track as well!

---

08:38:46 PDT

**Question:** question 1: Why MS provided string & String differently... I know framework support String with IL but why?? please answer

**Answer:** string is a C# keyword that resolves to System.String. You can use either one. Each language can create keywords that alias to the common types.

---

08:39:00 PDT

**Question:** Very basic this jumPDTart.... I need more...

**Answer:** Stay with us Washington... This is just module one where we need to set some baseline. LOTS of great content today.

---

08:40:50 PDT

**Question:** I am still not seeing Video. is the session in progress?

**Answer:** Hey Narayana! Yes, we've started. Please refresh your browser and you should be all set.

---

08:42:29 PDT

**Question:** I like Jerry he is funny!

**Answer:** We agree, Michael! He is hysterical. Constant jokester. Enjoy the class1

---

08:42:43 PDT





**Question:** Why Dot.NET is in version 4.5 and C# is 5.0 ?

**Answer:** The .NET Framework and languages are not in sync with versions.

---

08:43:18 PDT

**Question:** What's the difference between Object and object?

**Answer:** object is simply a keyword to System.Object

---

08:46:05 PDT

**Question:** Question: Is there a rule when to use static or singleton? advantages/disadvantages of both? Hope it fits into the topic.

**Answer:** There is no one specific rule, they handle similar features. Singletons can be easy to develop Unit Tests. Statics can be a little easier to call from other code because you just have a single references that never changes.

---

08:46:05 PDT

**Question:** how can I develop mobile app using C# and Visual studio ? Can you please share a good link to learn that?

**Answer:** Here is a link you can use to get started: <http://dev.windowsphone.com/en-us>

---

08:46:41 PDT

**Question:** how can I develop mobile app using C# and Visual studio ? Can you please share a good link to learn that?

**Answer:** look at the resources at this <http://msdn.microsoft.com/library/windows/apps/jj714071>

---

08:46:55 PDT

**Question:** JumpStart for 70-480 (HTML5 and CSS3) was very helpful. I have passed that exam after using the JumpStart.

**Answer:** This is great news! Congratulations Nitin! enjoy preparing for your next steps on MVA...

---

08:47:24 PDT

**Question:** Will LINQ compatible with VB.NET ?

**Answer:** Yes, some of the syntax is a little different but nothing significant

---

08:48:05 PDT

**Question:** Hi from Madrid, Spain

**Answer:** Bienvenido Antonio!

---

08:48:23 PDT

**Question:** using var does have cost performance for the procesor?

**Answer:** No, it is just shorthand for defining the type. dynamic has run-time impact

---



08:49:02 PDT

**Question:** Will they be going into detail on the differences between abstract classes and interfaces?

**Answer:** They might, but here are the major differences: a type can only inherit from one abstract class, whereas a type can implement multiple interfaces. An abstract class can have state and behaviors, whereas an interface can only *define* properties and behaviors.

---

08:49:32 PDT

**Question:** kindly answer me

**Answer:** I don't see your question?

---

08:49:43 PDT

**Question:** What is the difference between var and dynamic?

**Answer:** var is just shorthand for writing the type name (and absolutely needed for LINQ anonymous types) but dynamic tells the compiler that the type is not known and should be determined at run time.

---

08:49:44 PDT

**Question:** What's the difference between the two types string and String at run time?

**Answer:** no difference at all once compiled

---

08:50:35 PDT

**Question:** can I watch this video later?

**Answer:** Yes, it will be posted in the next week.

---

08:51:08 PDT

**Question:** How is an interface different from an abstract base class?

**Answer:** In short you need to inherit from an abstract base class and it can implement functionality in the base class, an interface is nothing more than a definition of what needs to be implemented..

---

08:51:27 PDT

**Question:** to code in c# we should use express visual studio for desktop...right?

**Answer:** yes, and version of Visual Studio from Express on up will work.

---

08:51:44 PDT

**Question:** what is ToString exactly please explain ?

**Answer:** Object.ToString() is a method that all types inherit. It allows any type to provide a string representation of itself. For custom types you create, the default behavior is to return the name of the type

---

08:51:53 PDT

**Question:** can you see my comment?

**Answer:** yes

---



---

08:52:26 PDT

**Question:** can u also see my comments?

**Answer:** yes

---

08:52:44 PDT

**Question:** hey if i create a int value type with static keyword . what is the default value in that case ?

**Answer:** The static keyword does not impact the initialization value of System.Int32 (int). It is still zero.

---

08:53:25 PDT

**Question:** Will you go into IoC, too? And the stuff around interfaces and abstract classes?

**Answer:** I doubt that they will go into IoC and dependency injections

---

08:53:48 PDT

**Question:**

> *Quoted question:* Hello from Miami, Thanks a lot for the HTML5, CSS3, JS Jump Start,

> *Quoted answer:* Congratulations Angel! Hope you're using MVA to prepare for 481 and 482 as well. Of course, glad you're excited about the C# track as well!

**Answer:** Congrats, nice to see you here too 😊

---

08:54:24 PDT

**Question:** LINQ vs SQL queries which has more performance ?

**Answer:** These aren't exactly equivalent. But if we focus only on LINQ to SQL vs SQL, When it converts to SQL they can have the same performance but it does depend on the SQL that LINQ would generate. This generation does depend on how you write the LINQ.

---

08:54:49 PDT

**Question:** How can I use variables from one class in another class?

**Answer:** You could start with a base class that has the common variables and then create your new classes and inherit from the base class.

---

08:55:41 PDT

**Question:** Could you please give me real example about interface ? and how we must use it.thanks

**Answer:** IDisposable interface has a Dispose method. Any type that implements IDisposable means it guarantees a Dispose method.

---

08:55:55 PDT

**Question:** Hello from london

**Answer:** Welcome! So glad you're here!

---



08:56:02 PDT

**Question:** John, are you on Twitter?

**Answer:** Yes, @johnwiese

---

08:56:22 PDT

**Question:**

> *Quoted question:* I like Jerry he is funny!

> *Quoted answer:* We agree, Michael! He is hysterical. Constant jokester. Enjoy the class!

**Answer:** He is almost as funny as the guys from the HTML5 Jump Starts 😊

---

08:56:53 PDT

**Question:** Greetings from Costa Rica

**Answer:** Hello Georgina! So glad you're here!

---

08:57:12 PDT

**Question:** Thank you. Can a base class be an XAML file?

**Answer:** XAML has the concept of Resource dictionaries which you could use in a similar way to code inheritance.

---

08:57:47 PDT

**Question:** why do many people prefer c# over vb.net?

**Answer:** One key reason is that the community provided so much support and extended documentation. Another is that it is similar in syntax to other languages such as Java

---

08:57:51 PDT

**Question:** Hey everyone, greetings from Costa Rica

**Answer:** ¡ Bienvenido! Así da gusto que estés aquí!

---

08:58:03 PDT

**Question:** Hello everyone. From Nigeria. So glad to be here

**Answer:** We're glad you're here, too!

---

08:58:23 PDT

**Question:** can we create own variable types in c#?

**Answer:** Yes

---

08:58:23 PDT

**Question:** Hi Guys. This is Dibakar from Bangalore

**Answer:** Welcome Dibs!

---



08:58:49 PDT

**Question:** from the classic asp days, I used lots of hidden fields. What's the C# alternative for using hidden fields to just store some data from page to page?

**Answer:** I believe you are referring to Private variables.

---

08:59:05 PDT

**Question:** Do we get to know only features or we will get some code related info

**Answer:** There will be lots and lots of demos throughout the day.... Stay tuned!

---

08:59:33 PDT

**Question:** Hello from Egypt,

**Answer:** So glad you're with us today!

---

09:00:22 PDT

**Question:** You've said what var isn't, but you haven't said what a var is???

**Answer:** var is a keyword that says "I am about to declare a variable that will be 'typed' base on what I initialize the variable to" For example: var x = 5;// x is System.Int32 var y = "Palermo4.com";// y is System.String

---

09:00:53 PDT

**Question:** what is the difference between var and Object?

**Answer:** var is a keyword to declare a variable. Object is a data type

---

09:01:07 PDT

**Question:** Excellent Class

**Answer:** Wait until you see the rest... LOTS and LOTS of great demos coming1

---

09:02:31 PDT

**Question:** Great Stuff !!

**Answer:** Thanks Deepu1

---

09:02:57 PDT

**Question:** What is d main difference between Abstract class nd an Interface??

**Answer:** Check out this [http://msdn.microsoft.com/en-us/library/scsyfw1d\(v=VS.71\).aspx](http://msdn.microsoft.com/en-us/library/scsyfw1d(v=VS.71).aspx)

---

09:03:14 PDT

**Question:** how we will understand when to use var ?

**Answer:** You can use var anytime you initialize a variable. The keyword var is helpful when initializing to anonymous types. Example: var x = new {Name="Michael Palermo"}; var y = x.Name; // x is a new type, Name is System.String

---



09:04:56 PDT

**Question:** is this a good class if I want to learn Sharepoint Development. I know C# is used, but classes are different in the OM

**Answer:** It's always great to expand your technical skills. C# can be used to do SharePoint development but this course will not cover the SharePoint OM at all.

---

09:06:18 PDT

**Question:** What is the main difference between Abstract class and an Interface??

**Answer:** An abstract class is an incomplete class definition. It cannot be instantiated on its own. However, an abstract class can contain *implementations* whereas an interface can only define a method or property without implementation. We'll talk about that a little more later.

---

09:06:46 PDT

**Question:** Hi my name is Afiya and I'm really enjoying the session

**Answer:** Great, thanks! Happy you could join.

---

09:06:48 PDT

**Question:** I have one basic doubt. I know what is polymorphism but in some interviews when I answered, they were not happy with my answer. Can you tell what is polymorphism in terms of an interviewer's point of view? Like what he needs..

**Answer:** Polymorphism enables a developer to remove hardcoded "if" statements. For example, you might have types like Employee, Manager, Executive. They all have a GetPaid method. Polymorphism would allow an array of these types to be iterated, and all you would have to do to pay everyone is call x.GetPaid(); Without polymorphism, you have to do logic like: If Employee, pay this way. If Manager, pay that way. If Executive, pay another way.

---

09:07:19 PDT

**Question:** what is /\*? Is it used just for comments?

**Answer:** yes

---

09:08:39 PDT

**Question:** Regarding var, my thought is not to use it everywhere, only where appropriate. Overuse makes for difficult to maintain code.

**Answer:** There are debated opinions on this topic. The key advantage to var (IMHO) is when using it for anonymous types or in LINQ (which will be discussed later)

---

09:09:38 PDT

**Question:** can you see my comments ?

**Answer:** No I can't see your comments 😊

---

09:09:46 PDT



**Question:** Will we/ can we get copies of these slides?

**Answer:** Please check the FAQ for your answer.

---

09:11:42 PDT

**Question:** static methods uses?

**Answer:** static means the state of data belongs to the type. Non-static (default) means the state of data belongs to the *instance* of the type. So static means there is only one location for data, whereas non-static has a separate space in memory for each object of that type. For example, we all have non-static bank accounts. However, the interest rate applied to all accounts is static.

---

09:13:22 PDT

**Question:** hello this is Oyin from Lagos, Nigeria

**Answer:** Welcome! So glad you're here!

---

09:13:27 PDT

**Question:** how to create a static const integer ?

**Answer:** Const is a special static type, so there is no need (and you can't) define it as static.

---

09:14:44 PDT

**Question:** I@JerryNixon Your blog is great!

**Answer:** All of you should be following Jerry and Daren: @jerrynixon, @darenmay...!

---

09:15:15 PDT

**Question:** If I have a variable that I will use in 7 or 8 different pages, ow/where do I declare it so all 8 pages can access without having to define on each page?

**Answer:** Assuming you are referring to ASP.NET pages, it is a more complicated question since state management principles apply on the web server and client-side in browser. A simple answer though is to create a separate class that contains the property and use that class in each page.

---

09:16:33 PDT

**Question:** Whats difference between class and struct?

**Answer:** Good description here: <http://msdn.microsoft.com/en-us/library/ms173109.aspx>

---

09:17:37 PDT

**Question:** what is namespace?

**Answer:** Namespace is a way to organize types. Think of it like folders on your PC. If you have a file called "String" in a folder called "System", the path to it would be System\String. In .NET, it is System.String.

---

09:18:34 PDT

**Question:** it hurts in performance having lot of usings not used or not ordered?

**Answer:** It does not impact performance at all. It is all resolved at compile time.

---



---

09:19:01 PDT

**Question:** Hello everybody , this is Hamza From Beirut, Lebanon

**Answer:** Welcome Hamza! so glad you're here!

---

09:19:26 PDT

**Question:** Greetings from Monterrey, Mexico.

**Answer:** ¡ Bienvenido! Así da gusto que estés aquí!

---

09:19:47 PDT

**Question:** Hey Michael and Frank. Scheduled for exam 70-481 next week (Mar-27). Fingers crossed.

**Answer:** Awesome! Keep me posted on twitter at @palermo4 😊

---

09:21:48 PDT

**Question:** How does OOP fit in with SQL databases for business applications? Why store values in an object rather than a table in a database? Hope it's not a silly question

**Answer:** What you would likely do is pull information out of your database and put it into objects to then work with in your application.

---

09:21:55 PDT

**Question:** Don't cal me surely XD

**Answer:** These guys are funny!

---

09:22:01 PDT

**Question:** Hello there.. been a while since I asked a question, seemingly gone unseen: Repeat: What is the use of protected ctors?

**Answer:** if you declare a constructor with a protected keyword, then you have defined a rule that states an instance of the type can only be created if inside the scope of an ancestor type.

---

09:24:06 PDT

**Question:** What is the code for the five day course for which this is the shorter version?

**Answer:** hello Syed... You're looking for Course 20483A: Programming in C#. Here's a <http://www.microsoft.com/learning/en/us/course.aspx?ID=20483A> to the course description. Highly recommended!

---

09:24:31 PDT

**Question:** what is difference between generics and collections.generics

**Answer:** Generics refers to the ability to create a type that compiles with the use of another type (or types). The collections.generics is a namespace for collections that use generics

---



09:25:46 PDT

**Question:** what is the main difference bet ween html and html 5

**Answer:** EXCELLENT QUESTION 😊 HTML5 is the newest version of HTML. Prior to HTML5, the last update to HTML was around 2001

---

09:25:48 PDT

**Question:** Hi from Greece too!!

**Answer:** Καλωσορίσατε και ευχαριστούμε που μας ενώνει! Τόσο ευτυχής είστε εδώ και ελπίζουμε να απολαύσετε την πορεία!

---

09:26:11 PDT

**Question:** Hello from Rome!

**Answer:** Benvenuto e grazie per unirsi a noi! Così felice che sei qui e spero che vi piaccia il corso!

---

09:27:02 PDT

**Question:** loaded up on caffeine... let's roll!

**Answer:** 😊

---

09:27:12 PDT

**Question:** where can we find the last specs of C#?

**Answer:** Everything your heart desires about C# is found here at <http://msdn.microsoft.com/en-us/library/kx37x362.aspx>

---

09:27:39 PDT

**Question:** what is difference between static and partial??

**Answer:** static is a keyword that indicates you will only ever have one instance of the variable/class/etc. partial indicates that the class exists in multiple files and the compiler will munge all the partial classes into a single class.

---

09:30:24 PDT

**Question:** Frank Gartland: All of you have seen all the great answers from Michael Palermo in Q&A. If you haven't seen him teach, you have to check out three of his courses on HTML5.... Highly recommended I have done all of these courses.

**Answer:** Thanks for the recommendation, mrpaulb! 😊

---

09:30:31 PDT

**Question:** Already following most of them for a long time Especially @JerryNixon

**Answer:** Sharing...

---

09:30:32 PDT



**Question:** /\* I seem to be having issues posting comments to the Q&A

**Answer:** I see you 😊

---

09:30:40 PDT

**Question:**

> *Quoted question:* can you see my comments ?

> *Quoted answer:* No I can't see your comments

**Answer:** I am also unable to see your comments :p

---

09:31:15 PDT

**Question:** Hello From c# lover ^^

**Answer:** Hello Housseem! Welcome back!

---

09:31:56 PDT

**Question:** Using Collections or Datatables? which is more preferred in terms of performance ?

**Answer:** I would not determine the use of collections or datatables based on performance. I would determine based on needs of data. Both perform excellent according to proper use.

---

09:32:43 PDT

**Question:** No One is answering me . I think My questions typed are not reached. ?

**Answer:** There are MANY questions. We are doing our best to catch up 😊

---

09:33:01 PDT

**Question:** I pass the 70-480, and I must say that the JumpStart played a huge part in that. The same way I believe will play in the next two.

**Answer:** Love hearing comments like this! Congratulations Daniel and good luck on pursuing both the HTML5 and C# MCSDs...1

---

09:35:01 PDT

**Question:** Hello! This is Ravi here from Bangalore.

**Answer:** Welcome Ravi!

---

09:35:44 PDT

**Question:** am in, from Zimbabwe!

**Answer:** Welcome Tatla!

---

09:36:20 PDT



**Question:** what is managed run time ?

**Answer:** The managed runtime refers to the "engine" that processes and executes all .NET code. Thus the runtime is required to be installed on any machine that wants to execute .NET stuff.

---

09:36:53 PDT

**Question:** guys is there any break time ?

**Answer:** yes, between modules there will be a break.

---

09:37:12 PDT

**Question:** Greeting from DC! Trying to squeeze this "jump start" during a regular day at work. Simply amazed at the number of learning opportunities from Microsoft these days.

**Answer:** Thanks for the feedback, JPS! We're so excited about all the things we're doing. Happy it's coming through to you and that you're enjoying these new learning experiences!

---

09:37:47 PDT

**Question:** is there anyway that i can get the contents of this chat?

**Answer:** Info on how is in the FAQ.

---

09:38:01 PDT

**Question:** <http://aka.ms/MVA-Coucher> 404 not found

**Answer:** The link is aka.ms/MVA-Voucher. The link you pasted here is wrong... That should work.

---

09:38:16 PDT

**Question:** Hello I'm from Indonesia

**Answer:** Welcome Bayu! So glad you're here!

---

09:38:28 PDT

**Question:** Hi. from Texas

**Answer:** Howdy, Carol!

---

09:38:49 PDT

**Question:** Hello from Finland!

**Answer:** Thanks for joining us, Muhammad!

---

09:38:55 PDT

**Question:** I have a doubt..... IS class is a pointer?

**Answer:** Class is not a pointer. An instance of a class is also not a pointer (but sure acts like one). In .NET, an instance of a class is referred to as a reference type

---

09:40:14 PDT



**Question:** Why we cant do Multiple inheritance in C#

**Answer:** Because Anders Hejlsberg said so 😊 All .NET types implement the single-inheritance model

---

09:40:16 PDT

**Question:** MVA is awesome. Love from the Philippines.

**Answer:** Love back to you from Redmond! Thanks for the feedback!

---

09:41:11 PDT

**Question:** If we have two partial classes, can we have the same property on both of them? and if we have data annotation on one, would it apply to other also?

**Answer:** Partial classes are simply compiler magic. It just allows a class definition to span across multiple files. This is handy when using code-generation tools.

---

09:42:53 PDT

**Question:** where can i find the pdf or word file to this course ? any body help

**Answer:** Check out the **FAQ tab**....

---

09:43:07 PDT

**Question:** Bar() is protected and internal also ? will this work?

**Answer:** Yes. internal (to project scope) and protected (scoped to inheritance chain). This is the merge of the two, and is the most restrictive next to private

---

09:43:52 PDT

**Question:** Can a short-hand property be private?

**Answer:** You can create a code snippet in Visual Studio 2012 that allows you to define your own custom declarations.

---

09:45:29 PDT

**Question:** Hey Michael I recently watch your HTML 5 Apps for the 70-480 exam it was very good

**Answer:** Thanks for the feedback... Here's a <https://www.microsoftvirtualacademy.com/training-courses/learn-html5-with-javascript-css3-jumpstart-training> to this course in MVA.

---

09:45:47 PDT

**Question:** Hi everyone from the UK. I am really excited, I think its very positive that Microsoft are holding this event!

**Answer:** Thanks Michael!

---

09:46:23 PDT

**Question:** How do I decide whether to use variables or properties in my class?

**Answer:** Properties are strongly encouraged over the use of fields (variables defined in class). Many of the



frameworks out there work only on data you defined as properties, not fields. Plus, properties allow you to validate and scrub data on assignment.

---

09:46:29 PDT

**Question:** Have fun, guys!

**Answer:** Always do! 😊

---

09:47:44 PDT

**Question:** Love those PC's - What are they using?

**Answer:** They are 27" touch displays from Planar and they are awesome.

---

09:48:14 PDT

**Question:** what could be the use of 'internal' declaration in the class... I see in the slide comments its for the assembly only... what does that mean

**Answer:** If you define anything as internal, the only place you can use the type is in the project (.exe or .dll) it was created in. Think of a Vehicle type. We don't use the Engine type directly, it is internal to the Vehicle that contains it. This is a way to implement class level encapsulation.

---

09:48:43 PDT

**Question:** Joining this Jump Start from Mexico. Regards to the staff, Daren, Jerry, Frank and the audience!

**Answer:** Welcome back, Ruben!

---

09:49:06 PDT

**Question:** Just wanted to point out, I don't believe the return type of a method is part of its signature.

**Answer:** It depends. When defining delegates, the return type is part of the signature. Delegates will be considered later.

---

09:49:34 PDT

**Question:** Can named arguments be used for other arguments other than the default parameters in the demo?

**Answer:** Yes

---

09:49:46 PDT

**Question:** Palermo, Can I run .NET4.5 Desktop Apps in a Windows XP ?

**Answer:** XP SP3 is support. <http://www.microsoft.com/en-us/download/details.aspx?id=8483>

---

09:50:21 PDT

**Question:** Im not sure if my questions are being answered

**Answer:** We are trying to answer as fast as we can 😊

---



09:50:27 PDT

**Question:**

> *Quoted question:* Palermo, Can I run .NET4.5 Desktop Apps in a Windows XP ?

> *Quoted answer:* XP SP3 is support. <http://www.microsoft.com/en-us/download/details.aspx?id=8483>

**Answer:** Actually it's SP2 and above on XP

---

09:50:35 PDT

**Question:** Hello Frank , I 'am Hamza From Lebanon

**Answer:** Hey Hamza! Welcome to the course!

---

09:51:25 PDT

**Question:** Hello from Tasmania!

**Answer:** Welcome Mark!

---

09:52:27 PDT

**Question:** What's the difference between field and property?

**Answer:** A field is simply a variable defined inside a class. A property is also defined inside a type, but used a get|set syntax - typically around a private field.

---

09:53:05 PDT

**Question:** These guys are pretty hilarious

**Answer:** Very much so.... 😊

---

09:53:09 PDT

**Question:** Can You clearly explain what partial do?

**Answer:** Partial simply means a class can be defined in multiple places or files and then get compiled into one class at compile time.

---

09:53:37 PDT

**Question:** is there a place where we can download the session after completion >?

**Answer:** Please check out the FAQ....

---

09:53:56 PDT

**Question:** I need for info on what are events and delegates and how to use them...thanks

**Answer:** stay tuned, this will be a topic later.

---

09:54:21 PDT

**Question:** wouldn't it be better if we would have typed Poodle dog = new Poodle();?

**Answer:** I did not see what the code was before.

---



---

09:56:03 PDT

**Question:** what the role of interfaces in c#

**Answer:** Interfaces provide types a definition to specific methods or properties. Once a type implements an interface, an instance of that type can be passed into any method that defines the interface as an argument.

---

09:56:06 PDT

**Question:** what the role of interfaces in c#

**Answer:** Interfaces provide types a definition to specific methods or properties. Once a type implements an interface, an instance of that type can be passed into any method that defines the interface as an argument.

---

09:56:31 PDT

**Question:** Can i Install Visual Studio Express 2012 in windows 7 ?

**Answer:** There is a version for Windows 7. Can't do any of the Window Store stuff with it though.

---

09:56:59 PDT

**Question:** what was the cert # they said this is training for? I missed that.

**Answer:** Hey Craig... This is accelerated cert prep for exam 70-483  
(<http://www.microsoft.com/learning/en/us/exam.aspx?ID=70-483>).

---

10:00:09 PDT

**Question:** hi from Romania, 17 year old watching here

**Answer:** Hey Julian! Nice! So glad you're here!

---

10:01:00 PDT

**Question:** There's a problema with voucher The entered voucher code is invalid. Please try again. ProgC#Jump ? Right?

**Answer:** No, the # doesn't work. Please use \*\*ProgCJump" and you should be all set.

---

10:02:04 PDT

**Question:** What is the default access specifier in C#??

**Answer:** It depends 😊 Check out this <http://msdn.microsoft.com/en-us/library/ba0a1yw2.aspx> out and look at the second table

---

10:03:08 PDT

**Question:** Hi the downloaded files are prompting me to sign into the team foundation server. Do I need to do that?

**Answer:** no, just click "no"

---

10:03:09 PDT

**Question:** what does internal means?

**Answer:** internal keyword means "can use only in this project (.exe or .dll)" For more info go to <http://msdn.microsoft.com/en-us/library/ba0a1yw2.aspx>

---

10:04:34 PDT

**Question:** thank u michael

**Answer:** My pleasure. The HTML5 community is happy to help the C# community 😊

---

10:05:34 PDT

**Question:** Re: wouldn't it be better if we would have typed Poodle dog = new Poodle();? They typed var dog = new Poodle()

**Answer:** They both *compile* to Poodle dog = new Poodle(); var keyword is replaced at compile time with the type on the other side of the equals sign.

---

10:05:53 PDT

**Question:** I dont think I can install VS2012 on Vista SP1, can you correct me, if wrong, Frank?

**Answer:** Hey Kunal... Not sure if you "can install" or not, but Vista is not supported. Here's a <http://www.microsoft.com/visualstudio/eng/products/compatibility> that should help.

---

10:06:23 PDT

**Question:** For all students: You can try to apply for DreamSpark to get access to Visual Studio Professional 2012 <https://www.dreamspark.com/Student/Software-Catalog.aspx>

**Answer:** Sharing...

---

10:07:07 PDT

**Question:** Are the questions being answered in a certain order?

**Answer:** no, just as we grab them and answer.

---

10:07:30 PDT

**Question:** why are we using var instead of the class's name

**Answer:** var is optional. As stated in other answers, it only becomes required when assigning to an anonymous type such as: var x = new {FirstName="Michael", LastName="Palermo"}; // new type, so var must be used

---

10:08:45 PDT

**Question:** can i have some notes to download please

**Answer:** Please check out the FAQ tab.

---

10:08:54 PDT





**Question:** Can you please explain nearlier WHEN i have to use override?

**Answer:** must do when base class uses either virtual or abstract method. Go to <http://msdn.microsoft.com/en-us/library/ebca9ah3.aspx> for more info

---

10:09:05 PDT

**Question:** hi, cool training

**Answer:** Thanks Ismail! Glad you're enjoying it.

---

10:10:36 PDT

**Question:** What is the difference between a delegate and a lambda expression ?

**Answer:** this will be covered later

---

10:10:53 PDT

**Question:** where can i find offline documentation ?>>> please guide me

**Answer:** what do you mean by offline?

---

10:11:24 PDT

**Question:** How we can see our variable values in console of C# compiler ?

**Answer:** Debug.WriteLine()

---

10:12:18 PDT

**Question:** why there is no concept of pointer in C# while it is advanced form of C++?

**Answer:** The concept of pointer *is* in C#. We call them *reference types*. Behave just like pointers, but much safer (and easier) to use.

---

10:12:20 PDT

**Question:** will you share the results of the poll about the region?

**Answer:** Thanks for the reminder! Just shared the results... New poll coming soon!

---

10:13:06 PDT

**Question:** Reference types are stored on the heap?

**Answer:** Yes

---

10:13:14 PDT

**Question:** Whats SOLID?

**Answer:** [http://en.wikipedia.org/wiki/Solid\\_\(object-oriented\\_design\)](http://en.wikipedia.org/wiki/Solid_(object-oriented_design))

---

10:15:15 PDT

**Question:** i want things more adavanced where i can find?

**Answer:** What sort of things?

---

10:15:34 PDT

**Question:** I am a little confused by Abstraction and Encapsulation.Are they the same thing?If not,what is the difference?

**Answer:** abstraction is the process of defining what things are in common. For example all bank accounts have a balance. Encapsulation is the ability to perform hidden behaviors. For example, I do not have direct access to the balance of my bank account. I can't just add 1,000,000 to my account without going through proper validation (and having that much money 😊 )

---

10:15:56 PDT

**Question:** where do i get to read more about unsafe code ? any source?

**Answer:** Check this out <http://msdn.microsoft.com/en-us/library/chfa2zb8.aspx>

---

10:17:58 PDT

**Question:** This all can be done with C++ too! I don't see these as the strength of C#

**Answer:** when dealing with deterministic memory allocation and de-allocation, I have created a C# app that has out performed C++ in an intensive object creation process. The benefit of C# is in the eloquent memory management 😊

---

10:18:06 PDT

**Question:** From my understanding, multiple inheritance such as in C++ can be a dangerous thing if not done right.

**Answer:** Tru dat

---

10:19:30 PDT

**Question:** In the sample code, it is asking for credentials for Team Foundation Server ( I am using VS 2010 Professional)

**Answer:** You should click "no" to the source control dialog.

---

10:21:08 PDT

**Question:** I think the best example for polymorphism in real worlds would be ice -> water -> gas

**Answer:** Sorry but I disagree. Your example is an instance changing form. Polymorphism requires descendant types that implement a behavior from the base type differently. Better real world example: SalesEmployee.GetPaid(), Manager.GetPaid(), Executive.GetPaid(). All inherit from Employee base which has a virtual GetPaid() method.

---

10:21:22 PDT

**Question:** I think there are many questions coming in.

**Answer:** We're starting to catch up... Stay tuned! 😊

---

10:23:40 PDT

**Question:** hi can i knw Polymorphism using Virtual and Virtual and Override key words

**Answer:** Yes, polymorphism is implemented when a base class is called but a derived type behavior was used. This requires either abstract or virtual on the base class, and override on the child class

---

10:25:16 PDT

**Question:** "Polymorphism" can u explain it in a simple way ?

**Answer:** Ask a HearingPerson for their name, and they will tell it to you. Ask a DeafPerson for their name, and they will *sign* it to you. Request was the same, the behavior is different according to type.

---

10:25:43 PDT

**Question:** I developed C++ and C some years ago. The performance boost is about 50%! C# is very, very productive.

**Answer:** true... true... 😊

---

10:26:28 PDT

**Question:** If i cast a Programmer into a Person and back into a Programmer, the Programmer will have the exact same properties as before casting?

**Answer:** yes

---

10:27:03 PDT

**Question:** We all love the DEMOS!

**Answer:** 😊

---

10:29:01 PDT

**Question:** This is a very good class, can't wait to hear more stuff through out the day.

**Answer:** Thanks Richard! Tons more coming! Will be great day. 😊

---

10:29:36 PDT

**Question:** what is meant by strong typing in variable definition ?

**Answer:** In C# strong typing means what know what the variable type is at compile time. The definition of the type can not change, but the value can. This is different from a language like JavaScript. For example in JavaScript: var x = "Muhahaha"; x = 4; // this is allowed in JavaScript Now an example in C#: string x = "Muhahaha"; x = 4; // EVIL in C# (will not compile)

---

10:29:37 PDT

**Question:** Good evening, coders! Summerly greetings from Mauritius

**Answer:** 😊 Welcome!

---

10:29:54 PDT



**Question:** What version of Visual Studio will they be using?

**Answer:** Visual Studio 2012

---

10:30:44 PDT

**Question:** When we use "var" are we losing performance? because I think it's faster to use variables with strong type than var

**Answer:** There are no performance issues at all. This is all resolved at *compile* time. At compile time, the var keyword is replaced with the respective type.

---

10:31:05 PDT

**Question:** When can I find the last updated C# spec?

**Answer:** Go here <http://msdn.microsoft.com/en-us/library/kx37x362.aspx>

---

10:31:14 PDT

**Question:** Is there a C# 5.0 language specification guide?

**Answer:** Go here <http://msdn.microsoft.com/en-us/library/kx37x362.aspx>

---

10:31:16 PDT

**Question:** I am joining this for the first time. Where can we see the previous recordings?

**Answer:** Check out this <https://www.microsoftvirtualacademy.com/LiveEvents.aspx> to MVA!

---

10:32:31 PDT

**Question:** What is COM interface?

**Answer:** This is used for communicating from .NET world to Win32API stuff (and vice-versa)

---

10:32:41 PDT

**Question:** Can I access properties of dynamic via Intellisense?

**Answer:** No

---

10:33:06 PDT

**Question:** Please suggest some good books and web resources to learn ASP.NET 4.5.

**Answer:** There's a **FANTASTIC** course on MVA covering ASP.NET 4.5... It was delivered by Scott Hanselman, Jon Galloway and Damian Edwards. Here's a <https://www.microsoftvirtualacademy.com/training-courses/building-web-apps-with-asp-net> directly to the course. **CHECK IT OUT!** 😊

---

10:33:41 PDT

**Question:** LINQ vs SQL queries which has more performance?

**Answer:** Not really a fair question. It depends on the scenario. In most cases though, LINQ will likely determine a better query than a human. Just sayin' 😊

---

10:34:42 PDT

**Question:** Hmm.. Dynamics. Could be seriously dangerous... Not sure I'd use.

**Answer:** With great power comes great responsibility. Use the force wisely...

---

10:35:06 PDT

**Question:** You guys are sort of taking this class as a "know nothing" start, huh?

**Answer:** somewhat true 😊

---

10:35:30 PDT

**Question:** What is Delegate?

**Answer:** covered later, but it is like a mini-interface to a single method

---

10:35:46 PDT

**Question:** will anybody answer my question?

**Answer:** yes 😊

---

10:35:52 PDT

**Question:** Any answers yet?

**Answer:** Yes 😊

---

10:36:13 PDT

**Question:** how can i do like `public IList<IData> getData(string typeName){ var list = new List<typeName>(); return list; }`

**Answer:** Is this a question?

---

10:36:54 PDT

**Question:** Wait, thought Jerry was from Colorado? Didn't know Colorado folks say 'soda.' Though it was pop for them.

**Answer:** Jerry is defined as a special type 😊

---

10:37:05 PDT

**Question:** FAQ... what a concept! Silly me...

**Answer:** LOL... 😊

---

10:37:17 PDT



**Question:** I found the language specification, it's inside Visual Studio installation. Thanks.

**Answer:** Also here online <http://msdn.microsoft.com/en-us/library/kx37x362.aspx>

---

10:38:31 PDT

**Question:** . . Where can I find the recordings of the sessions? . You can find all session recordings in the recording section of the virtual event platform. . . A question from a lot of people, good to know from the help section: <http://msl-events.cloudapp.net/HelpCenter.aspx?eid=da26d8bb-5da5-4562-a264-8df5c413ec15>

**Answer:** Hey Bilal... Best place to try is MVA! check out this <https://www.microsoftvirtualacademy.com/LiveEvents.aspx>.

---

10:39:09 PDT

**Question:** I am new to C#. I know C++ and Java a little bit. I am confused what is the basic difference between .NET, ASP.NET, C#.NET and VB.NET ?

**Answer:** .NET = general overall umbrella to everything else ASP.NET = all .NET items related to web development C# & VB are .NET languages

---

10:39:34 PDT

**Question:** Wait a minute.. I'm a little perplexed! Why am I not getting a reply here? Is this some technical glitch?

**Answer:** We are checking on the glitch...

---

10:40:12 PDT

**Question:** what's the time will start in everyday ?

**Answer:** This is a one-day course 😊

---

10:40:29 PDT

**Question:** Curious how you would take values returned from a sql query to an array. In the sample, it's hard coded 1,2,3 4, etc... If you have values returned from sql in a data table, how would you set those into the array?

**Answer:** You would need to walk through the dataset and put the values into the array, or use linq.

---

10:40:44 PDT

**Question:** Did you skip interfaces a few slides ago?

**Answer:** They are covering much of the content via demo... All will be covered, but they won't spend much time in PowerPoint the rest of the way.

---

10:41:48 PDT

**Question:** Since Object Oriented Programming is so truly reflection of the day to day object and its some how hard and costly why all are we following it? just a thought

**Answer:** "Hard" is a relevant term. Once a developer groks the concept, it is very simple. Costly is also subjective. It can be argued that it is less costly than structured, linear code.

---

10:42:17 PDT



**Question:** did u understand my previous ques? return a list of objects based on a parameter(name of a class) passed in the method, and class implements a interface named IData..

**Answer:** No, I do not understand your question. It seems more like a statement.

---

10:43:12 PDT

**Question:** Hi Michael P. - love your blog

**Answer:** Sharing!

---

10:43:40 PDT

**Question:** is there any way to private data members out of class in c# i mean through pointers ??? i did this in c

**Answer:** Private data members can be accessed through properties or methods.

---

10:44:10 PDT

**Question:** i find the Generics hard but glad we are getting this knowledge

**Answer:** Generics enable less coding once you understand what problem it solves.

---

10:44:58 PDT

**Question:** can we define abstract definitions using structs ?

**Answer:** No

---

10:46:57 PDT

**Question:** what's the difference between inheritance and composition?

**Answer:** Car and RaceCar use inheritance. A RaceCar *is* a Car (sounds good, right?). Car and Wheels use a form of composition. A Car *contains* Wheels. However, would you say a Wheel is a Car? No. One "is a", the other "has a"...

---

10:48:05 PDT

**Question:** whats the ideal max struct size in bytes ?

**Answer:** Whatever your max type should be 😊 Not trying to be silly, but just define what you need

---

10:48:16 PDT

**Question:** Hi , I asked when will the session start and no one replied

**Answer:** It started 😊

---

10:48:55 PDT

**Question:** is there any final class?

**Answer:** Yes, in C# it is defined with the *sealed* keyword

---

10:49:06 PDT



**Question:** Hello Michael

**Answer:** Sup? 😊

---

10:50:51 PDT

**Question:** What can you do to a class to disallow people from having extension methods to my class?

**Answer:** There is nothing you can do. Extension methods are compiler trickery. They actually never extend your class. They are implemented in a separate static class at compile time. The illusion is that your class was modified - even though it wasn't.

---

10:50:56 PDT

**Question:** are structs a on the stack?

**Answer:** Yes

---

10:51:11 PDT

**Question:** Hello, can you see this message?

**Answer:** Yes

---

10:51:36 PDT

**Question:** Would you cover unit testing?

**Answer:** Unlikely

---

10:52:24 PDT

**Question:** Suppose I wrote a program in C# , and i want to deploy to another computer. Must prepare specially for those computer ? Which are the conditions for those computere?

**Answer:** All C# programs require the .NET runtime on each target machine. Most Windows OS already have version(s) of .NET installed.

---

10:53:58 PDT

**Question:** Playing around I see that you can have a static method within a non-static class, under what scenario would you want to do this?

**Answer:** BankAccount class. The Balance property is for each account instance. The static InterestRate property applies to all accounts and is stored in only one location.

---

10:55:05 PDT

**Question:** @MichaelPalermo Nice: "Let's not box ourselves into the typical cast"

**Answer:** Thanks 😊

---

10:55:08 PDT





**Question:** @MichaelPalermo Nice: "Let's not box ourselves into the typical cast"

**Answer:** Thanks 😊

---

10:55:44 PDT

**Question:** Michael nice example on "Polymorphism".... fantastic

**Answer:** Sharing... It was a great answer posted to chat!

---

10:55:53 PDT

**Question:** if "public" is also part of the signature, does that mean I can have a method private void Speak(string what="bark") and NOT have a conflict?

**Answer:** Yes you can

---

10:56:53 PDT

**Question:** Can we get link of total JumpStart video...

**Answer:** Here you go: <http://www.microsoftvirtualacademy.com/LiveEvents.aspx>.

---

10:56:55 PDT

**Question:** not getting any response

**Answer:** Sorry to hear that. Hope you get a response soon 😊

---

10:58:02 PDT

**Question:** in Module 8: Advanced C#, Part 4, will they be going into MVVM at all? If not is there a link for training for this?

**Answer:** Good question, Carol. Check out module 3 from Ben Riga's Jump Start on Building for Both Windows 8 and Windows Phone 8... Here's a <http://www.microsoftvirtualacademy.com/training-courses/build-apps-for-both-windows-8-and-windows-phone-8>.

---

10:58:06 PDT

**Question:** what is delegate?

**Answer:** It provides the ability to pass functions around. Will be discussed later

---

10:58:18 PDT

**Question:** so partial classes do have different attributes but in compilation time the awesome VS 2012 does join all the partial classes that have the same name !!

**Answer:** Yes

---

10:58:33 PDT



**Question:** can you please explain this line `var dog=new Poodle()`? I was expecting `var dog=new Dog()`. I must have missed something.

**Answer:** Both are acceptable 😊

---

10:59:37 PDT

**Question:** what's the default modifier? If we don't write anything...

**Answer:** Check this link out <http://msdn.microsoft.com/en-us/library/ba0a1yw2.aspx>

---

11:00:40 PDT

**Question:** small question, if the nobody is listening to the event, but and i raise the event, will i get a null exception?

**Answer:** Excellent question. It depends on how you defined it in syntax. They will probably cover this later.

---

11:00:53 PDT

**Question:** I am not getting any answers. Can you see my questions?

**Answer:** I see this question.

---

11:02:19 PDT

**Question:** @Michael Palermo: this makes me to ask if if use Entity Framework will the performance differ ?

**Answer:** It should not.

---

11:03:02 PDT

**Question:** Where in the real world apps are we using private set? It doesn't make a sense if we encapsulate a setter.

**Answer:** It is used primarily when creating a framework yourself - not an app.

---

11:04:04 PDT

**Question:** What is the difference between all the class types : Private and internal Sealed

**Answer:** Go here <http://msdn.microsoft.com/en-us/library/ba0a1yw2.aspx>

---

11:04:35 PDT

**Question:** Is there a class Poodle that is inheriting from Dog?

**Answer:** Woof! (that means yes)

---

11:05:19 PDT

**Question:** ref. my question; I saw that Michael Palermo said that exist version of Visual Studio Express 2012 in Windows 7. Hence answer: minimal system for computer is " with Windows 7"?

**Answer:** Yes

---

11:05:32 PDT



**Question:** I'm sorry if this has been answered already; but I'm going to drop for a bit - will this event be recorded?

**Answer:** from the FAQ: "Yes, all sessions are being recorded and will be posted to MVA. We will send the URL to all attendees when they're published in a week or so." 😊

---

11:05:38 PDT

**Question:** if i was using c# with asp to build a web application, can i use classes to help bring data to the user interface?

**Answer:** Yes

---

11:05:54 PDT

**Question:** Is generics in C# and templates in C++ similar concepts ?

**Answer:** Yes

---

11:12:50 PDT

**Question:** Thanks Michael for all the info.

**Answer:** Glad to help

---

11:13:12 PDT

**Question:** if reg expressions are incredible why Jerry hates all who implements?

**Answer:** I hate it when people use Regex to scrape email addresses from the internet! (spammers) 😊 Don't we all? (Except for those who write spam filters, I suppose!)

---

11:13:34 PDT

**Question:** On the slide 15 of Module 3 can you answer the question "If Class2 is cast to Class1, can it then be cast to class3?"

**Answer:** Hey Samantha - as Class2 does not inherit from Class3, it cannot be cast to Class3

---

11:13:56 PDT

**Question:** Please update this videos somewhere on net... I am from India

**Answer:** from the FAQ: "Q: Are recordings made available afterwards? A: Yes, all sessions are being recorded and will be posted to MVA. We will send the URL to all attendees when they're published in a week or so." 😊

---

11:13:59 PDT

**Question:** it was nice to hang out with you, best regards

**Answer:** Cheers!

---

11:14:25 PDT

**Question:** there are a lot of Romanian people watching this webcast

**Answer:** Awesome and welcome!

---



---

11:14:36 PDT

**Question:** Hey Mike

**Answer:** Howdy!

---

11:15:45 PDT

**Question:** A lot of us are not seeing the replies to our own questions

**Answer:** We are checking into this...

---

11:15:54 PDT

**Question:** what is the difference between the class string and stringbuilder?

**Answer:** string is immutable and cannot be changed, StringBuilder is designed to allow the contents to be changed. StringBuilder is more efficient with memory and performance if you are doing a lot of string manipulation. once you have finished with a StringBuilder you can use its ToString method to convert the internal data to a string instance (which is then immutable). I hope that helps.

---

11:16:19 PDT

**Question:** Hai Michael Could you help me? i Have a Question

**Answer:** Sup?

---

11:16:45 PDT

**Question:** You rock Michael!

**Answer:** (blushing)

---

11:17:39 PDT

**Question:** thanx to the presenters and the answering team. Its 9 PM+ here in Saudi Arabia. Will try to get the rest from the recordings. cheers

**Answer:** Happy to help the C# community 😊

---

11:18:16 PDT

**Question:** great show.

**Answer:** Thanks Rohit!

---

11:21:37 PDT

**Question:** whats the partial class keyword used for?

**Answer:** Partial classes are used to split classes into many files. This is for team development, grouping, or code generation.

---

11:22:46 PDT



**Question:** Hey thanks for the tips, I never used the partial classes like you showed.

**Answer:** So glad you're enjoying the class. Lots more coming!

---

11:22:54 PDT

**Question:** already did, I'm proud to be a student!

**Answer:** Thanks Julian!

---

11:22:56 PDT

**Question:** what is the c# visual 2012 website

**Answer:** try <http://msdn.microsoft.com/en-us/library/hh156499.aspx>

---

11:23:39 PDT

**Question:** The Voucher link doesn't seem to work properly....?? <http://aka.ms/MVA-Voucher> - what's that voucher good for?

**Answer:** Please try this code: ProgCJump... No # symbol.

---

11:23:52 PDT

**Question:** My First Experience And Best!

**Answer:** So glad to hear it, Santana!

---

11:24:35 PDT

**Question:** Hi Frank, this might be a silly question, but I saw a course offered by you and Michael, how can I register for it?

**Answer:** You can see all the Jump Starts at this <http://www.microsoftvirtualacademy.com/LiveEvents.aspx>.

---

11:27:50 PDT

**Question:** Hello there any one can tell me about books for this certification please

**Answer:** hey Rebin! Not really any cert-focused books available right now, but here are three GREAT books we strongly recommend: CLR via C#, 4th Edition (<http://shop.oreilly.com/product/0790145353665.do>), Microsoft Visual C# 2012 Step by Step, 1st Edition (<http://shop.oreilly.com/product/0790145356765.do>) and Programming Windows, Sixth Edition (<http://aka.ms/petzold>)

---

11:32:34 PDT

**Question:** Really enjoying this back and forth way of teaching. Very clear.

**Answer:** Thanks for the feedback, Marc! Glad you're enjoying it!

---

11:33:36 PDT

**Question:** when is the 1hr break, Need to go away for a while?

**Answer:** We will be taking a slightly longer break just after noon PDT...

---



11:34:00 PDT

**Question:** What's the difference between `var newDog = Activator.CreateInstance<Dog>();` and `var newDog = new Dog();`;

**Answer:** Activator is an API that allows you to a lot more things - <http://msdn.microsoft.com/en-us/library/b4wc81dc.aspx>

---

11:35:44 PDT

**Question:**

> *Quoted question:* What's the difference between `var newDog = Activator.CreateInstance<Dog>();` and `var newDog = new Dog();`;

> *Quoted answer:* Activator is an API that allows you to a lot more things - <http://msdn.microsoft.com/en-us/library/b4wc81dc.aspx>

**Answer:** they're using Activator now because we're talking about reflection at the moment; in typical programming scenarios when you're not using reflection or trying to create remote objects, you don't need to use Activator

---

11:38:07 PDT

**Question:** I never used Activator to instantiate an object rather traditional way. Do I need to use Activity API in future?

**Answer:** no Activator has very specific use cases; take a quick look at <http://msdn.microsoft.com/en-us/library/b4wc81dc.aspx>. we're seeing Activator now because we're dealing with reflection

---

11:40:39 PDT

**Question:** Arrived late unfortunately... this is my first MVA event, reallyyyyyyyyyyy impressed. Great content, awesome production.

**Answer:** Glad you're here Paul... LOTS of great stuff coming. Thanks for the feedback, too!

---

11:41:40 PDT

**Question:** Hi everyone, i'm from indonesia. sorry for late, and nice join to you guys

**Answer:** Welcome Aries! Glad you're here!

---

11:42:18 PDT

**Question:** Difference between "var" and "Object"

**Answer:** var is used for implicitly typed local variables and for anonymous types. try <http://msdn.microsoft.com/en-us/magazine/gg598922.aspx>

---

11:42:40 PDT

**Question:** I like to whatching MVA Vids while doing sports / workouts.

**Answer:** Great idea, Kosi and thanks for sharing!

---

11:45:00 PDT



**Question:** Hi i am from Nepal and i think the conversation question and Answer are more valuable can we get these answer in our mail too?

**Answer:** Yes, you will get a copy of the Q&A Log in the thank you email and it will be posted to MVA as well.

---

11:46:03 PDT

**Question:** What is the use of Activator?

**Answer:** <http://msdn.microsoft.com/en-us/library/b4wc81dc.aspx>

---

11:47:43 PDT

**Question:** You should also follow @JeffRichter on Twitter. His blog covers also very interesting topics: <http://www.wintellect.com/cs/blogs/jeffreyr/>

**Answer:** Great suggestion - definitely tune in to Jeff Richter. Also, you can grab his latest book "CLR via C#, 4th Edition" (<http://shop.oreilly.com/product/0790145353665.do>).

---

11:48:42 PDT

**Question:** Theres nothing better than MVA happening right now..cheers

**Answer:** Love hearing feedback like this! Thanks for sharing!

---

11:49:21 PDT

**Question:** MVA is outstanding.I like the series.Love and wishes from India.Abhishek

**Answer:** Thanks so much for sharing!

---

11:50:19 PDT

**Question:** Frank or Michael please reply on: Please suggest some good books and web resources to learn ASP.NET 4.5.

**Answer:** Definitely check out the "Building Apps with ASP.NET Jump Start" on MVA (<http://www.microsoftvirtualacademy.com/training-courses/building-web-apps-with-asp-net>)... It's fantastic.

---

11:50:45 PDT

**Question:** While checking property or method in reflection do all private properties and methods are also reflected?

**Answer:** subject to permissions - [http://msdn.microsoft.com/en-us/library/stfy7tfc\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/stfy7tfc(v=vs.110).aspx)

---

11:52:55 PDT

**Question:** Isn't it time for a new poll?

**Answer:** Great point, Peter. Everyone please answer the current poll now while I prepare a new one!

---

11:56:56 PDT

**Question:** can GC be called in a web app ... sorry Im asking a web question

**Answer:** if you're using .NET on the server-side then GC will occur in the .NET runtime there; but for the HTML/JavaScript code in the browser, the browser has its own memory management and GC mechanisms which is separate from our talk here

---



---

11:57:21 PDT

**Question:** For the guys still having problems with polymorphism check out this article from john sonmez <http://simpleprogrammer.com/2013/01/13/so-you-think-you-can-polymorph/>

**Answer:** Sharing...

---

12:02:09 PDT

**Question:** Can I specify what generation can I terminate the Garbage Collection from?

**Answer:** the Collect() API allows you to induce/force a collection on generation 0, but you don't have control over generations 1 and 2. <http://msdn.microsoft.com/en-us/library/baa1f39s.aspx>. However, what you can do is managing references to objects, which determine which objects get placed in which generations and eventually get GC'ed accordingly

---

12:04:12 PDT

**Question:** I love this session

**Answer:** Thanks! Glad you're enjoying!

---

12:04:34 PDT

**Question:** I appreciate this course very much, please thank the guys during break

**Answer:** Will do!

---

12:06:00 PDT

**Question:** mva showcases also the power of Azure

**Answer:** You bet! Lots of great content on MVA.

---

12:09:13 PDT

**Question:** GC calling is costly ?

**Answer:** Yes - the runtime does a lot of work to determine which objects can be collected, which objects should be promoted between generations, plus all managed threads are suspended except for the thread that triggered the garbage collection. Most of the time we don't have to do manual GC, but it's a good topic to understand

---

12:10:11 PDT

**Question:** what is exactly a Memory Leak?

**Answer:** <http://msdn.microsoft.com/en-us/library/ms859408.aspx>

---

12:12:51 PDT

**Question:** How do objects that go out of scope still be referenced and thus failing GC?

**Answer:** objects created in-scope, but referenced by out-of-scope objects (such as creating an object and adding it to a static variable, a data structure you're keeping in the memory, an object used by another thread, etc.)

---





12:15:07 PDT

**Question:** How do you know if your application has a Memory Leak?

**Answer:** <http://msdn.microsoft.com/en-us/library/ms859408.aspx>

---

12:15:11 PDT

**Question:** weak and strong I get dizzy some link please?

**Answer:** <http://msdn.microsoft.com/en-us/library/ms404247.aspx>

---

12:15:41 PDT

**Question:** Is the recording available for this class after it is completed?

**Answer:** Yes, please check the FAQ for more info

---

12:16:01 PDT

**Question:** Is this the correct way to implement IDisposable: public class MyClass : IDisposable { private Close() { Dispose(this); } }

**Answer:** No, you need to implement dispose like this: public void Dispose() { GC.SuppressFinalize(this); }

---

12:19:02 PDT

**Question:** How often the GC runs automatically?

**Answer:** No joking here... it is a managed mystery. Much is dependent on how much is going on. Compare System.GC to a guy watching a football game. He only takes care of the trash during commercials, or when nagging wife calls GC.Collect() 😊

---

12:19:48 PDT

**Question:** Thanks for session

Hoping to see more C# related session very soon..

**Answer:** Glad you are enjoying it 😊

---

12:19:50 PDT

**Question:** How often the GC runs automatically?

**Answer:** it's not a fixed period. GC runs when it should. although you have some level of control with latency modes - <http://msdn.microsoft.com/en-us/library/bb384202.aspx>

---

12:20:55 PDT

**Question:** Is Using available in VB

**Answer:** <http://msdn.microsoft.com/en-us/library/htd05whh.aspx>

---

12:23:09 PDT



**Question:** Why aren't my comments not visible to u guys?

**Answer:** We don't know. We are checking into it...

---

12:23:40 PDT

**Question:** Thanks by the link @dachou. I see what you mean @Michael. My wife, usually do it by pulling the plug of the TV. :o]]

**Answer:** Hah! Don't get me started with the generation analogy!

---

12:24:10 PDT

**Question:** Is "using" the same as a let expression?

**Answer:** no they're different. The Let clause enables you to compute values for each query result and reference them by using an alias [http://msdn.microsoft.com/en-us/library/bb531379\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/bb531379(v=vs.110).aspx); Using - <http://msdn.microsoft.com/en-us/library/htd05whh.aspx>

---

12:24:28 PDT

**Question:** it is 11pm in here! is there anyway to dl this show? ty for the great show

**Answer:** Your welcome!

---

12:24:40 PDT

**Question:** what is auto post back?

**Answer:** In a web page, when you configure a control to initiate a post back to the server when the value in a control changes. this might be when a user picks a new value in drop down or when they change the value in a text box

---

12:24:48 PDT

**Question:** thanqqqqqq very nuch sir

**Answer:** Cheers!

---

12:25:29 PDT

**Question:** Very nice course , since give me great refresh for C#. Mother language.

**Answer:** Thanks for feedback!

---

12:25:45 PDT

**Question:** I cant use the key for the voucher code\*: "ProgC#Jump" whats wrong?

**Answer:** Remove the #

---

12:26:12 PDT

**Question:** C# is the ultimate programming language, I knew it since I first used in 2009. Great session.

**Answer:** It is a great stepping stone to HTML5 😊

---



12:26:36 PDT

**Question:** Memory leaks because of events.... omg, now I know why ..... !! Got to change my code a bit !!!

**Answer:** Nice tip eh?

---

12:27:35 PDT

**Question:** I've seen in some of the Jump Starts the expositor deploy his applications into azure environment. ¿ There is a way to get an Azure for developers that allow host the applications and save data without cost?

**Answer:** You can get an Azure 90 day free trial. There are some other programs like DreamSpark that you may be able to qualify for if you are at an academic institution

---

12:28:00 PDT

**Question:** Hi QUESTION: If c# code can be written in lots of different ways then does that make it more difficult for junior developers to learn what the expert have written? As a junior developer, I find that I get de-motivated if I keep seeing code written in a strange way all the time

**Answer:** I agree with your feedback. CSharp.Choices == State.OfUncertainty;

---

12:28:33 PDT

**Question:** I am very grateful to you guys to make the course very impressive, this course really helped me add knowledge about programming C #

**Answer:** Cheers. It was awesome that Jerry stayed up last night to learn this stuff 🙏

---

12:28:38 PDT

**Question:** That the dot in c# be changed to a some other character like ^ because a dot is sometimes difficult to see especially if your eyes are not as good as they use to be?

**Answer:** I don't think that is possible. You could adjust the font in Visual Studio to have it easier to read.

---

12:29:41 PDT

**Question:** How does one ask a question that is "posted", i.e., have the word "posted" printed next to the name of the questioner?

**Answer:** When someone replies to your post - Shazaam!

---

12:30:05 PDT

**Question:** which version of .Net framework I need to choose as Target Framework in Application Configuration in order to my desktop app run in any win 7 (or XP ) PC without extra installing .net framework? tnx

**Answer:** You can target 3.5, which is already installed on Win7. .NET 4.5 and 4.0 can be easily installed especially with the Client Profiles which are smaller installer package.

---

12:30:33 PDT

**Question:** how long is the meal break?

**Answer:** Aye, good question. We be startin' back at top o the hour

---



12:31:00 PDT

**Question:** Cannot comprehend why C# JumpStart is spending so much time on Reflection & Garbage Collection - topics that are somewhat arcane and infrequently used?

**Answer:** it's an important part of the platform. even though we don't have to directly induce/force garbage collection, knowing its fundamentals helps us be better programmers (e.g., memory efficient code). Reflection comes in handy sometimes. 😊 for most developers we don't have to fully understand these subjects but it's good to be aware of them

---

12:31:09 PDT

**Question:** It happens, @Michael, that I'm a huge fan of football (soccer for those of you in US). But, since I bought a second TV set, she just complain of the amount of Team shirts I have. By the way, I support brazilian's best: São Paulo Futebol Clube.

**Answer:** Throwing in multi-processors is helpful 😊

---

12:32:02 PDT

**Question:** why did the guys use dogs as example? cats are better!

**Answer:** Felines rule. Dogs drool - literally.

---

12:32:19 PDT

**Question:** why are we using 'var' instead of the class's name like `var baseclass = new Base()` instead of `Base baseclass = new Base()`

**Answer:** Either will work, it becomes a matter of personal preference.

---

12:32:29 PDT

**Question:** Can?

**Answer:** Can?

---

12:32:42 PDT

**Question:** Thanks it accept the voucher.

**Answer:** Excellent.

---

12:33:02 PDT

**Question:** What came first 'C' language(s) or JavaScript?

**Answer:** C has a very long history. many languages use similar syntax including Java and Javascript

---

12:33:03 PDT

**Question:** what is the difference between class and struct

**Answer:** <http://msdn.microsoft.com/en-us/library/ms173109.aspx>

---



12:33:35 PDT

**Question:** why c# is called as a static language?

**Answer:** because the types are all defined at compile time. this is changing with the introduction of the 'dynamic' keyword

---

12:33:42 PDT

**Question:** wt is the difference between class and struct

**Answer:** A class is a reference type, struct is a value type. Classes can do inheritance, structs can't. Class instances are allocated on the heap, structs are allocated on the stack.

---

12:34:28 PDT

**Question:** E

**Answer:** E? I think you have to click on "You're a STUDENT"

---

12:35:56 PDT

**Question:** I was never actually taught var, and was taught to explicitly name the type. Is using var the more accepted standard?

**Answer:** It is highly debated. In the end, it is a matter of maintainability in your code. With the exception of LINQ and anonymous types, it is truly just an option.

---

12:36:13 PDT

**Question:** Once you implement an interface to different classes, what are the benefits for these classes defining methods of this interface. In opposite to just implementing the same method without implementing of interface?

**Answer:** once you implement an interface it is easier for other parts of your code to call that interface method. If have class A and class B that implement a Bar() method without interfaces you need to call them as a.Bar() and b.Bar(). if they implement an interface you can call them like  
Iinterface c = (Iinterface) a; // casting c.Bar(); c = (Interface) b; //casting to same c variable c.Bar();

---

12:36:31 PDT

**Question:** why are we using 'var' instead of the class's name like var baseclass = new Base() instead of Base baseclass = new Base()

**Answer:** personal preference, either works

---

12:37:49 PDT

**Question:**

> *Quoted question:* Once you implement an interface to different classes, what are the benefits for these classes defining methods of this interface. In opposite to just implementing the same method without implementing of interface?

> *Quoted answer:* once you implement an interface it is easier for other parts of your code to call that interface method. If have class A and class B that implement a Bar() method without interfaces you need to call them as a.Bar() and b.Bar(). if they implement an interface you can call them like Iinterface c = (Iinterface) a; // casting c.Bar(); c = (Interface) b; //casting to same c variable c.Bar();

**Answer:** Go back to the using() { }; example that Jerry shared. That only works with types that implement IDisposable. Think this way: When I implement an interface, what can I now PLUG INTO?



---

12:38:27 PDT

**Question:** What is the difference between a delegate and a lambda expression ?

**Answer:** specific usage. They are generally the same thing in that you are creating a function that can be called from a variable. This has a longer description <http://msdn.microsoft.com/en-us/library/orm-9780596516109-03-09.aspx>

---

12:38:34 PDT

**Question:** Well, KeyValuePair<K,V> works as a struct, so a Dictionary<K,V> (that works as a KeyValuePair collection) is a reference type with underlying value types, right?

**Answer:** Yes

---

12:38:52 PDT

**Question:** the voucher code does not work ?

**Answer:** Remove the #

---

12:39:05 PDT

**Question:** Yay! got 50 MVA points with the new code. Thank you.

**Answer:** Congrats

---

12:39:26 PDT

**Question:** Whats the difference between using var x = "Csharp"; and string x = "Csharp";

**Answer:** Clarity. You can infer that x is of type string in the first one, in the later it is clear by the code line.

---

12:40:01 PDT

**Question:** in the foreach statement, do you need to give it a starting point [1] ?

**Answer:** No. It always starts at the beginning and you don't even have an index value like '1'

---

12:40:24 PDT

**Question:** hi. thanks jerry and daren for the show. how are you michael?

**Answer:** Doing great. Fun to be on this side of the Jump Start 🤖

---

12:41:25 PDT

**Question:** Greetings from Copenhagen, Denmark from a old-school newbie trying to get my head around all the possibilities in VS, WPF, XAML ... These learning opportunities are much appreciated.

**Answer:** Excellent. Thanks for being here today (or tonight in your case)

---

12:41:27 PDT



**Question:** When comparing string values on if statement, what is better way to do this, if (val == "val")... or if (val.Equals("val")) ?

**Answer:** For string I prefer the former. when you are talking about object classes you need to be doing the latter because the == comparison will only say if it exactly the same instance not whether it is the same value.

---

12:41:57 PDT

**Question:** comparing GC with a guy watching football... nice one . Thanks for the session

**Answer:** Your welcome

---

12:44:22 PDT

**Question:** If that's right, why when we do iterations as dictionary["x"] += value (on a Dictionary<string, double> type, for instance) do the value gets changed? If it's a struct, shouldn't it stay on it's original value and, in order to change it's actual value we should change the KeyValuePair itself (like dictionary["x"] = oldValue + newValue)?

**Answer:** Think of your example in much simpler terms: int x = 5; int y = x; y+=1;//this does not change x

---

12:45:15 PDT

**Question:** What is the benefits programming in C# for win 8 instead of HTML 5 and javascript? I am new to dot net and I am not sure which one to focus on.

**Answer:** I am biased to HTML5. That said, there are technically more options available in C# for Windows 8 AND Windows Phone at this time.

---

12:45:47 PDT

**Question:** taking about the reflecting, you could loop through to get name of the methods because you dont know them. How do you know know the parameters for the constructors?

**Answer:** The ConstructorInfo class has a GetParameters method that will have that info.

See <http://msdn.microsoft.com/en-us/library/system.reflection.constructorinfo.aspx>

---

12:46:08 PDT

**Question:** How are .Net namespaces differ from java namespaces?

**Answer:** .NET namespaces are more like Java packages.

---

12:47:59 PDT

**Question:** what is idisposable?

**Answer:** It is an interface that objects implement if they need to release resources when complete You call the Dispose() method when done with the object. You can also use a "using" pattern to have it called for you automatically

---

12:48:35 PDT

**Question:**

> *Quoted question:* How are .Net namespaces differ from java namespaces?

> *Quoted answer:* .NET namespaces are more like Java packages.

**Answer:** both are used as abstract containers for grouping and organizing code, though Java packages have a stronger relationship with file paths, whereas .NET namespaces are more logical in nature

---

---

12:48:53 PDT

**Question:** Is Disposable() recommended to close and release database connections on classes that open and use those connections, or should let the Garbage collector free the db connections (after correctly closed on app code)?

**Answer:** No. You should be releasing database connection immediately after the call to the database. DB connection pooling is a much better approach. Always keep the database connection open as short as possible.

---

12:48:56 PDT

**Question:** I think .net namespaces do not define the physical layout of the source files like java packages. Is that correct?

**Answer:** You are correct. With .NET, namespaces are logical, not physical like Java packages. That said, they "organize" the same way.

---

12:49:35 PDT

**Question:** is this dispose useless on web development?

**Answer:** No. it speeds release resources before the GarbageCollector can get to it, which is important for performance in any environment.

---

12:50:06 PDT

**Question:** switch is used instead of else if???

**Answer:** Yes it can be.

---

12:50:48 PDT

**Question:** hello palermo inform you know if will be released promocodes or voucher for exam 70-483? thank you

**Answer:** I will find out for you. what language are you translating from? I am getting a little "All your base are belong to us" 😊

---

12:51:03 PDT

**Question:** How long is the break? sry if its asked before.

**Answer:** starting up in 10 minutes

---

12:51:15 PDT

**Question:** somewhere I saw the "voucher" issue was corrected ... but I am not able to use: ProgC#Jump to redeem ... please let me know the correct code.

**Answer:** Remove the #

---

12:51:22 PDT

**Question:** While declaring a variable, what are the advantages of using ""var" instead of actual type?

**Answer:** less characters to type. the down side is the confusion that it might cause when someone needs to read it.

---





One place that you must use var is with LINQ and anonymous types. It is sometimes nice to use it with LINQ because the type names can be very long.

---

12:51:25 PDT

**Question:** Thank you.

**Answer:** Cheers

---

12:51:57 PDT

**Question:** thank you

**Answer:** Glad to help

---

12:52:18 PDT

**Question:** what is difference between internal and internal protected?

**Answer:** scope of what other code can access you method/property/field. This has more info <http://msdn.microsoft.com/en-us/library/ms173121.aspx>

---

12:52:36 PDT

**Question:** Palermo, you can always go back to C# you know!, you just demonstrated that you are excellent in both, actually the difference in this course and the one you did is; that you guys were changing t-shirts like every hour and Jerry is not. Ha Ha, they are both very good courses, Thanks a Lot!! From Phoenix, AZ

**Answer:** Let's see what Jerry is wearing when he returns 😊

---

12:53:44 PDT

**Question:** what are the pros and cons of using var poodle=new Poodle() versus Poodle poodle=new Poodle()?

**Answer:** One might be easier to read. They both compile to the same IL in the end.

---

12:53:57 PDT

**Question:** Hi I am enjoying this class without reasonable doubt. Nice works dudes!

**Answer:** Thanks for the feedback 😊

---

12:54:43 PDT

**Question:** What is System.Xml?

**Answer:** It is a namespace that contains all the types related to XML development.

---

12:55:29 PDT

**Question:** Can we see this JumpStart later in a vod? Because i missed the first 3 hours

**Answer:** Jump Start will be made available next week for viewing on demand. How exciting to see Jerry and Daren once again!

---



12:55:49 PDT

**Question:** Could you play some Spinal Tap (Stonehenge maybe??) during the breaks, this jazz is naff!!

**Answer:** Excellent suggestion

---

12:55:50 PDT

**Question:** Could you play some Spinal Tap (Stonehenge maybe??) during the breaks, this jazz is naff!!

**Answer:** Wow, I am doing that on my guitar right now 😊

---

12:56:08 PDT

**Question:** hello palermo language is Portuguese Brazil but if it is in English no problem

**Answer:** Thanks 😊

---

12:56:39 PDT

**Question:** sure, but why does the item on the dictionary has it's value changed, or doesn't it? based on your answer, doing a dictionary[key] += value should not actually change the dictionary.

**Answer:** It will change the value in the dictionary

---

12:57:19 PDT

**Question:** These Jump Starts make me wanna love Microsoft "Jump by Jump" !!!

**Answer:** Nice!

---

12:57:38 PDT

**Question:** Michael, thanks for your 70-480 Videos, it was very helpful to pass the exam.

**Answer:** Great to know... Congratulations!

---

12:57:51 PDT

**Question:** very low priority - will check a while after the event ends, but the voucher code does not redeem

**Answer:** Remove the #

---

12:58:28 PDT

**Question:** whats a partial class ... did I miss that?

**Answer:** you may have. It is a way to separate parts of a class into different files. The compiler then takes care of putting them into a single class for you.

---

12:59:03 PDT

**Question:** where to find recording of html5 event of 28 feb ??

**Answer:** Go to <http://blogs.msdn.com/b/palermo4/archive/2013/02/26/2013-feb-28-70-482-html5-app-jump-start.aspx> and click on "Videos now available on Channel 9!!!"

---



---

12:59:18 PDT

**Question:** Snoopy, Scooby, Fido, Pluto if you need more popular dog name

**Answer:** Perfect... What about names for antelopes?

---

12:59:35 PDT

**Question:** what are constructors used for?

**Answer:** Constructors are used to initialize instance state for a class

---

12:59:55 PDT

**Question:** Which module covers threading?

**Answer:** Absolutely will cover threading this afternoon!

---

13:00:16 PDT

**Question:** they should probably use the same examples in the code sample project to explain the concepts, this way you can recall the video information later when you look at the code ... just a suggestion

**Answer:** Thanks for the suggestion, we'll take that into consideration for future sessions.

---

13:00:25 PDT

**Question:** where to find recording of html5 event of 28 feb ??

**Answer:** Go to <http://aka.ms/70-482> and click on "Videos now available on Channel 9!!!"

---

13:00:35 PDT

**Question:** Never been to a jump start before...just to read the Q&A section alone is enough to make it worth my time

**Answer:** Thanks, glad you could join!

---

13:00:52 PDT

**Question:** Michael can you sent the link for your 70-480 videos?

**Answer:** Go to <http://aka.ms/70-482> and click on "Videos now available on Channel 9!!!"

---

13:01:34 PDT

**Question:** Great event. Even though the video is going to be recorded and available, I am going to try and stay here all through the night till 5AM.

**Answer:** Love to hear that. So glad you're finding the content valuable.

---

13:01:47 PDT

**Question:** Are we going to see any extension methods ? Sorry, I have just joined the session.

**Answer:** Sorry, I do not believe that those are being covered.

---



---

13:02:20 PDT

**Question:** Keep up the good work MVA. These Jump Start video sessions are fantastic. Just what we need. Please make some more and in the greater depth. Thanks very much.

**Answer:** 'tis a pleasure!

---

13:03:19 PDT

**Question:** It's midnight already here in Russia - let's start

**Answer:** Stay up with us!

---

13:07:01 PDT

**Question:** What are initializers in C#3?

**Answer:** This will be covered a little later today. stay tuned!

---

13:07:09 PDT

**Question:** Michael its better than Jerry the presenter

**Answer:** tru dat

---

13:08:49 PDT

**Question:** Is der any chance we develop a WPF application??

**Answer:** You could develop WPF with C#. Don't know if that will be covered today or not.

---

13:09:00 PDT

**Question:** want to start windows phone development .... what is the right place to start .... and what should i cover ??? please give me the link

**Answer:** dev.windowsphone.com has all the info you need, including links to content

---

13:10:07 PDT

**Question:** what is the difference between partial classes and partial methods?

**Answer:** partial classes can be defined across multiple files. partial methods enable the emitting of a method (or not) at compile time based on usage.

---

13:10:39 PDT

**Question:** those guys are so funny

**Answer:** As I stated before, they are almost as funny as the HTML5 jump start guys...

---

13:10:54 PDT

**Question:** سولي يا شالا اذت هنا

**Answer:** True!

---



---

13:12:21 PDT

**Question:** When is it appropriate to use `IsNullOrWhiteSpace` versus `IsNullOrEmpty`?

**Answer:** The difference is really comparing white space to empty. `empty == ""` white space `== " "` if you regard white space as empty, go with the white space method

---

13:12:36 PDT

**Question:** Will you talk about code contracts? That could be a nice addition here.

**Answer:** Not covered in this course

---

13:12:39 PDT

**Question:** Is it bad that I've been creating solutions, pasting and editing for years, without really studying from the ground up? This Jump Start is immensely appreciated!

**Answer:** Hey Gary... Good point. Glad you're enjoying the course!

---

13:12:53 PDT

**Question:** Thanks! I shall visit the ASP.NET one later on...cheers.

**Answer:** Sounds great... Lots of great courses on MVA.

---

13:13:13 PDT

**Question:** Who are the c# / Razor evangelists? Wonder if Michael would like that world.

**Answer:** I just shaved today.

---

13:14:37 PDT

**Question:** Whoever choose these 4 guys to show these two courses is very smart. Both courses help a lot of different people. Thx a lot to all 4 and Microsoft

**Answer:** Wow. Frank that compliment is for you!

---

13:16:57 PDT

**Question:** Just wanted to check if there is any jumpPDTart in future planned for the test engineers specifically related to testing as well as automation. Thanks

**Answer:** Great question. Yes, we will be delivering "Software Testing with Visual Studio 2012" (accelerated cert prep for exam 70-497) in mid-May... Subscribe the RSS feed at this <http://www.microsoftvirtualacademy.com/LiveEvents.aspx>.

---

13:17:35 PDT

**Question:** thanks Palermo I passed in 70480

**Answer:** You rock! Congrats!

---

13:17:59 PDT

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**Question:** it must be awesome to work @Channel9, am I right?

**Answer:** More awesome to work with MVA!

---

13:18:37 PDT

**Question:** What is Eifel (other than a tower in Paris)?

**Answer:** another programming language [http://en.wikipedia.org/wiki/Eiffel\\_\(programming\\_language\)](http://en.wikipedia.org/wiki/Eiffel_(programming_language))

---

13:18:45 PDT

**Question:** Please tell Jerry the string on his hoodie is coming out longer on one side and must fix. Those things are a pain to get threaded back thru!

**Answer:** HA HA HA!!! Maybe "Barry the Camera Switcher" can give him a hint 😊

---

13:19:20 PDT

**Question:**

> *Quoted question:* where to find recording of html5 event of 28 feb ??

> *Quoted answer:* Go to <http://blogs.msdn.com/b/palermo4/archive/2013/02/26/2013-feb-28-70-482-html5-app-jump-start.aspx> and click on "Videos now available on Channel 9!!!"

**Answer:** Here is the same course posted to MVA (<http://www.microsoftvirtualacademy.com/training-courses/developing-windows-store-apps-with-html5-jump-start>)... I'd suggest you enjoy courses from MVA so you can get points and track your progress..

---

13:20:22 PDT

**Question:** Yes, we're all looking at the string, please fix

**Answer:** Now I can't help but look at that string

---

13:20:45 PDT

**Question:** see Palermo, he did not wear the 'electricity' t-skirt

**Answer:** But his hoody string is jacked.

---

13:23:51 PDT

**Question:** Does the .NET string class have a PullThruHoodie() method or can Jerry implement an extension method?

**Answer:** touché!

---

13:26:55 PDT

**Question:** Contract.Ensures(!MyStringExt.IsTooShort("Fix it!!!"));

**Answer:** fantastic and relevant!

---

13:27:21 PDT



**Question:** Dear Jerry: Please show us how to compare two string lengths using the hoodie. if (leftString.length > rightString.length { leftString.shorten; } else if (leftString.length < rightString.length { rightString.shorten; } // I should pass the exam with flying colors!

**Answer:** This is awesome!

---

13:27:45 PDT

**Question:** Use OneNote 2013 to capture interesting bits from the comments

**Answer:** Very good suggestion

---

13:30:55 PDT

**Question:** What's that addin name?

**Answer:** <http://visualstudiogallery.msdn.microsoft.com/1ec7db13-3363-46c9-851f-1ce455f66970>

---

13:31:07 PDT

**Question:** Where can we find this Contract Addon?

**Answer:** <http://visualstudiogallery.msdn.microsoft.com/1ec7db13-3363-46c9-851f-1ce455f66970>

---

13:31:49 PDT

**Question:** I also think that ThreadAbortException is not caught by the base Exception right?

**Answer:** For more info, go to <http://msdn.microsoft.com/en-us/library/system.threading.threadabortexception.aspx>

---

13:32:04 PDT

**Question:** Passed the 70-480 with ease a few weeks ago. The videos were a great help. Thanks Michael and Jeremy! But now I'm getting lazy.. How about jumpPDTarts as prep for 70-486 and/or 70-487? That would be a great help since the Exam Ref books for these exams will be for sale from September 22 and August 22.

**Answer:** Hooray! Congrats 🎉

---

13:32:44 PDT

**Question:** Can we define custome exceptions?

**Answer:** Yes. Best to inherit from ApplicationException when doing so.

---

13:33:42 PDT

**Question:** public void JumpPDTart() { try { Jerry.ContinueSessionAfterLunch(); } catch (StringWentOutOfControlException ex) { MessageBox.Show(String.Format("Dear Jerry! You have an anomaly there!! {0}? ", ex.Message.ToString())); } finally { Jerry.TakeOffTheHood(); } }

**Answer:** Once again, very good implementation of current info and Jerry's current issue...

---

13:34:00 PDT

**Question:** nice. thanks Michael

**Answer:** Cheers.

---



---

13:34:13 PDT

**Question:** want to start windows phone development .... what is the right place to start .... and what should i cover ??? please give me the link

**Answer:** <http://dev.windowsphone.com> for tutorials, documentation, samples, SDK downloads, etc.

---

13:34:46 PDT

**Question:** What is the difference between "catch" without parenthesis vs "finally"?

**Answer:** catch w/o parens is not called if there is no exception thrown. finally is ALWAYS called.

---

13:34:58 PDT

**Question:** What 's the difference between Contract and CodeContract?

**Answer:** <http://msdn.microsoft.com/en-us/library/dd264808.aspx>

---

13:35:15 PDT

**Question:** Is no one receiving my questions. No one answers them?

**Answer:** we are checking into this

---

13:37:04 PDT

**Question:** Where can we find the list of specific exceptions? Regards

**Answer:** The better way to address this is: Are there any potential exceptions that will be thrown when I execute this line of code? Documentation will reveal what exceptions are potentially thrown...

---

13:37:26 PDT

**Question:** Palermo, Are you giving away vouchers for this exam like you did for yours? if not why? what is the difference?

**Answer:** Not mine to give away. Ask Frank 😊

---

13:37:42 PDT

**Question:** I posted 3 questions, not a single one gets answered?

**Answer:** Looking into this...

---

13:38:52 PDT

**Question:** I thought "var" had to be interpreted at exec time (casted or converted to its real type of object), therefore it consumed more resources than just writing "my class a = new myClass();"

**Answer:** var has no corresponding IL code. It is compiler magic only. What you are thinking of is the dynamic keyword

---

13:40:09 PDT





**Question:** I assume I have been blacklisted(); I have two questions pending.

**Answer:** We are on to you 😊 I will see if I can find the black list and resurrect your questions.

---

13:40:42 PDT

**Question:** I need to go. Can watch this online later day?

**Answer:** This will be available sometime in the near future (guess is sometime next week)

---

13:41:15 PDT

**Question:** hi agn, when this will be posted on mva.

**Answer:** approximately a week (see FAQ)

---

13:42:12 PDT

**Question:** voted!

**Answer:** Thank you!

---

13:42:23 PDT

**Question:** how can i save this videos

**Answer:** please see FAQ

---

13:42:56 PDT

**Question:**

> *Quoted question:* In Poland, it's snowing. Frank Gartland replied privately: Raining here in Redmond!

**Answer:** Beautiful sunny sky in Phoenix

---

13:43:18 PDT

**Question:** may i know where is this sample code.

**Answer:** please see FAQ - there are links to content

---

13:43:31 PDT

**Question:** may i know where is this sample code.

**Answer:** See the FAQ... Visit [xaml.codeplex.com](http://xaml.codeplex.com) and look for the link under the "Microsoft Virtual Academy" section....

---

13:45:28 PDT

**Question:** "Frank Gartland: New Poll just posted (finally!)... Please grab your mouse and click the BEST answer!" or grab your finger if your on Win8 touch

**Answer:** Great point! I need to update my lingo! 😊

---



13:52:07 PDT

**Question:** Thx Michael. Added you on twitter, so behave lol

**Answer:** gulp. will do

---

13:53:45 PDT

**Question:** Thank you Michael. I hope I'll see you soon. When you will present another JumpStart?

**Answer:** Up to Frank 😊

---

14:01:59 PDT

**Question:** is streaming data encryptable?

**Answer:** You can encrypt a stream of data, you'll need to buffer and encrypt in chunks. the receiver will have to be doing the same chunk decryption

---

14:02:29 PDT

**Question:** is streaming data encryptable?

**Answer:** Yes, you just need to do it in chunks and buffer the data to define the chunks

---

14:03:02 PDT

**Question:** is streaming data encryptable?

**Answer:** You can encrypt a stream of data, you'll need to buffer and encrypt in chunks. the receiver will have to be doing the same chunk decryption

---

14:04:50 PDT

**Question:** Reflection is all about looking back at types when you don't really know what you have if I understand right. They could get names of methods as shown but I did not understand how they got the different constructors signatures. Looked like they already knew the parameters for the constructors before the reflection was made

**Answer:** You can get the parameters from the `ConstructorInfo.GetParameters()` method

---

14:06:18 PDT

**Question:** the last slide seems to have the first two statements contradicting... GC ignores weak reference object and GC collects object with weak reference. ????

**Answer:** GC ignores them in that they don't stop the object being pointed to from being collected. If an object only has a weak reference, it will be collected. If it has a strong reference and a weak it will not be collected because of the strong.

---

14:07:28 PDT

**Question:** when we are creating default constructor we need not to know what is the signature of each constructor, right?

**Answer:** if this is on reflection, you can know the signature. For defaults this is no parameters, you can also use the `ConstructorInfo.GetParameters()` method to get the params for a specific constructor

---



14:08:21 PDT

**Question:** These examples (and most I have seen) assume you know the type. Will they show me how to do it when I don't know the type? Is this possible? Something like... `private void CreateInstance (Interface objectIn) { var obj = Activator.CreateInstance(typeof (objectIn.GetType())) }`

**Answer:** Yes you can do that if you don't know the type at all and find it out from a specific instance.

---

14:10:31 PDT

**Question:** Can i inherit multiple classes in single line separated by comma...?

**Answer:** You can only inherit from one base class. you can implement multiple interfaces and yes you just use a comma to separate them

---

14:12:31 PDT

**Question:** With the evolution of both VB and C# since .Net 1 - are there any major differences (other than syntax), i.e. is one more performant than the other? I've been a VB developer for many years and don't see much difference between them

**Answer:** In the functions that both use there is no performance difference. Since the syntax is slightly different the compile process may produce different IL which could lead to a performance difference. I haven't seen any studies on the significance of this. I think it is just a matter of developer productivity.

---

14:13:47 PDT

**Question:** Hey guys, not to be disruptive, but I asked this early on and didn't catch an answer: "A question from some members of my team in work. There is a Exam for Programming in C# (70-483), they are worried that VB.NET will 'die'. There's truth in that? Another one in the same subject: usually I can choose C# or VB.NET in exams. That stays true in the 70-483 exam?"

**Answer:** VB.NET will not die. there is active development of the language. I think there are different exam numbers for c# vs vb.net. I think the last number usually changes.

---

14:15:06 PDT

**Question:** `(value == 1 ? "One": (value == 2 ? "Two" : "Other"))`, there is a if else in ternary

**Answer:** Yes, you could type that. you essentially are just nesting the tests.

---

14:15:13 PDT

**Question:** I have to go unfortunately. It's bedtime here. Thanks a million for this session, and will watch the rest of it later on. My ms heart is pumping fast again. See you all..

**Answer:** Thanks so much for the comments and all your great questions, Peter! Looking forward to seeing you online next time!

---

14:17:48 PDT

**Question:** You know what? I'm going to say it - This JumpStart is AMAZING!!! Now a bit more curious to see if there'll more like these on WPF and WCF? (Please say - Yes. there will be)

**Answer:** Awesome feedback Kunal. Very much appreciated. Thanks so much for hanging out with us and we hope you enjoy the rest of the course!

---



14:19:48 PDT

**Question:** What would be nice to know is to have any framework specific code noted on the slides, demo, and samples.

**Answer:** Hey Reas... check the FAQ... You can download all these demos (and much more) from [xaml.codeplex.com...](http://xaml.codeplex.com...) 😊

---

14:20:59 PDT

**Question:** Actually I haven't been coding for the last month due to workload...I have to thank MVA and especially Jerry for this small bit of coding encouragement! I heard about the MVA at the TechDays of last week in NL, I am very glad for that I will certainly stick around for more stuff

**Answer:** Thanks for the feedback, Serdar! Glad you're learning a ton.

---

14:22:23 PDT

**Question:** Thx Frank, I will. It was a great offer and exceeded very fast. After a couple of years of programming it's time to get some proof of knowledge..

**Answer:** We agree. The new MCSD certs are being very well received and glad you're pursuing your C# MCSD.

---

14:39:08 PDT

**Question:** `Contract.Requires(leftString.Length.Equals(rightString.Length),ArgumentException("Bad Hoodie"));`

**Answer:** You are sooo correct 😊

---

14:40:43 PDT

**Question:** Hey @Daren... you're throwing Jerry's string jokes back in. Use my gems!

**Answer:** LOL

---

14:48:06 PDT

**Question:** Just to see if I got it. In order to achieve a MCSD in Windows Store Apps (for instance), either they take the path in HTML5+JS+CSS3 or C#+XAML. Thanks Frank and Craig. That will help then decide.

**Answer:** Hey Daniel... Basically, you've got it, but there are other choices for MCSD. There are two routes for the MCSD: Windows Store (<http://www.microsoft.com/learning/en/us/mcsd-windows-store-apps-certification.aspx>), HTML5 and C#. Additionally, there's an MCSD: Web Apps route (<http://www.microsoft.com/learning/en/us/mcsd-web-apps-certification.aspx>) and a MCSD: ALM route (<http://www.microsoft.com/learning/en/us/mcsd-application-lifecycle-management.aspx>)... Many in this Jump Start are going for both Windows Apps MCSDs....

---

14:52:00 PDT

**Question:** Darren and Jerry are exceptional but so were previous presenters.

**Answer:** Thanks for the feedback, John. The one thing we focus on for every Jump Start is world-class instructors. Glad you've been pleased so far. Hope you enjoy Jump Start recordings on MVA (<http://www.microsoftvirtualacademy.com/LiveEvents.aspx>) and register for future Jump Starts. See you online!

---

14:54:51 PDT



**Question:** Got my answer! Thanks, Jerry.

**Answer:** Fantastic. Glad to hear it.

---

14:56:14 PDT

**Question:** Thanks Frank. My certification plan for the year is: Take all three MCSD in order: Windows Apps (HTML5), Web Apps and ALM; Then, if I got the time, the MCSD in Windows Apps w/ C#; And that's why I love the JumpDTart series and MS learning initiative as a whole (especially MVA). I'm waiting, anxiously, for the second ASP.NET JumpDTart and for the ALM JumpDTarts as well.

**Answer:** Daniel - love this plan. Best of luck. We're glad MVA is a part of your plan and look forward to seeing you online quite a bit!

---

14:59:47 PDT

**Question:** I think the more free training Microsoft offers the more your products will dominate. Also developers will gain maximum leverage from the technologies.

**Answer:** Thanks for the thought, Michael... We're so excited about what our products are capable of, we're just looking to shout from the highest peak. Glad you're enjoying our approach thus far.

---

15:03:21 PDT

**Question:** Do you think that new developers can easily get overwhelmed with all the new technology eg Windows .Net, Windows Azure, SilverLight, Blend, WPF, XAML, ASP etc.. And how we ensure that we are keeping up to date with it all? especially with a low budget?

**Answer:** This is a great question. I think the best approach is to make a few key choices early on and grow from there. For example, a first choice might be deciding whether to focus on HTML5, CSS, and JavaScript OR C#/XAML.

The good news, is that all of it is pretty cool these days so it's FUN! 😊

---

15:09:46 PDT

**Question:** what is the minimum edition of vs2012 that comes with these performance tools? I don't think express has it...

**Answer:** Good question, Julian... Jerry will take this live.

---

15:21:12 PDT

**Question:** what is the difference between instrumentation/telemetry and unit testing?

**Answer:** Unit testing is the process of testing aspects of your code in isolation outside of a running application. Instrumentation/telemetry monitors a running application

---

15:23:51 PDT

**Question:** Frank can you tell me where can I program for iOS?

**Answer:** Hello Fisi... In May, we will be delivering a Jump Start designed to help iOS developers build Windows apps. Jorge Rodriguez will be one of the featured instructors.

---

15:32:06 PDT



**Question:** Thank you so much for very informative sessions. Learnt a lot. Really inspired to learn C# in detail.

**Answer:** Fantastic! Thanks!

---

15:35:24 PDT

**Question:** very good instructors , i love them so much really good session

**Answer:** Thanks for the feedback, much appreciated.

---

15:36:16 PDT

**Question:** Thanks Frank. Was with you on your HTML5 Jump and passed the 70-480. Apr 8 doing 70-481. Still passion with vb since version 4

**Answer:** Exactly, I remember you from prior Jump Starts. Congratulations on passing 70-480!

---

15:37:48 PDT

**Question:** I have a curiosity: in which building in the MS campus is this Jump Start being filmed?

**Answer:** Hey Julian... All Jump Starts are broadcast from the MSL Studios in Redmond Town Center, Building 5...

---

15:42:43 PDT

**Question:** share a blog from Jerry Nixon all Win8-info: <http://blog.jerrynixon.com/p/w8-info.html>

**Answer:** Great question. Here's a <http://blog.jerrynixon.com/> to Jerry's blog. It's fantastic. Also, you should follow him @jerrynixon.

---

15:43:21 PDT

**Question:** Nice 'stache shirt, fixed hoodie strings...

**Answer:** Exactly! Glad you noticed.

---

15:44:04 PDT

**Question:** wife just got done baking chocolate chip cookies, wish i could share them with everyone!

**Answer:** I only wish you could share with me. 😊

---

15:44:20 PDT

**Question:** Thanks Frank. I find more details here: <http://www.microsoft.com/visualstudio/eng/products/compare>

**Answer:** Great... Thanks for sharing, Daniel.

---

15:44:47 PDT

**Question:** Hi Frank, another great session from you guys . Are there any plans for #JumPDTart on the MCSd: ALM track?

**Answer:** Absolutely... End of April and May...

---

15:47:25 PDT

**Question:** Does the compiler remove unused using statements at the top of the code?

**Answer:** using statements do not exist in compiled code, they are just an indicator to the compiler of what namespaces to look at to find classes in the current code file

---

15:48:17 PDT

**Question:** Coming from open source development with PHP and Linux, it was tough to find all the information about best practices and tips for writing code in one place. These JumpStart courses are absolutely awesome! So much solid info all in one place, and better yet it is free! Microsoft Virtual Academy FTW...

**Answer:** Thanks so much for the feedback, Andrew. So glad you're enjoying the Jump Start series and finding so much value in MVA.

---

15:48:43 PDT

**Question:** Suggestion for a new event : Frank Gartland and Julie Lerman talking about Entity Framework Jump Start.

**Answer:** Hey Andre! I love the topic, but I don't think you want me teaching it! 😊

---

15:50:51 PDT

**Question:** Does C# have a preprocessor like C++ that permits #includes and #if/#ifdef like statements?

**Answer:** Yes, there is no #includes but you have #if and #define [http://msdn.microsoft.com/en-us/library/4y6tbswk\(v=VS.100\).aspx](http://msdn.microsoft.com/en-us/library/4y6tbswk(v=VS.100).aspx)

---

15:50:57 PDT

**Question:** Is there a jumpStart for win8 apps using XAML + C#?

**Answer:** There are a few and more coming! For now, try Ben Riga's course on Building Apps for both Windows 8 and Windows Phone 8... (<http://www.microsoftvirtualacademy.com/training-courses/build-apps-for-both-windows-8-and-windows-phone-8>)...

---

15:54:55 PDT

**Question:** Great session, instructors have a wealth of knowledge they are sharing today. Will #jumpStart be available for the MCS D Web app track?

**Answer:** Thanks for the feedback, Leslie! So glad you're enjoying the course. We have the MCS D: HTML5 track on MVA, we're starting the C# track today and will start the ALM track in late April. We will do the Web Apps track as well, but nothing firm yet. Please note that exam 70-480 is the first step in that track and we have a course on that on MVA (<http://www.microsoftvirtualacademy.com/training-courses/learn-html5-with-javascript-css3-jumpStart-training>).

---

15:55:45 PDT

**Question:** Please for download examples of this session?

**Answer:** All code samples are at [xaml.codeplex.com](http://xaml.codeplex.com).

---

15:57:18 PDT

**Question:** "Very little code" funny Jerry

**Answer:** 😊

---



---

15:57:37 PDT

**Question:** When will we be able to enter the voucher in MVA?

**Answer:** You can do so now... Just don't use the # symbol.... ProgCJump

---

16:01:48 PDT

**Question:** Thanks Frank. I have passed the first test 70-480 in the Web App track, the jumPDart video was a huge help. Keep up the great work

**Answer:** Thanks Leslie and congratulations!

---

16:02:08 PDT

**Question:** fantastic session, well done for the whole team

**Answer:** Thanks so much! One more great module left! Don't forget the POLLS!

---

16:06:29 PDT

**Question:** I must say that while programming in C # for 10 years (since version 1.1 of .NET in 2003), a presentation like this is exactly what I needed in order to review some basics and, also, some more advanced topics. So, congratulations. Initially I took the day off to watch this JumPDart, wanting to rethink some coding techniques that I use and also to evaluate whether it was worth presenting to my team. The result is that you rocked! So, thank you.

**Answer:** Daniel -- this is such great feedback. Thanks for sharing your thoughts and we look forward to seeing you online going forward!

---

16:07:22 PDT

**Question:** Is it possible to add C++ dll reference to C# class library and how to use it in C#?

**Answer:** Yes, if the exports are made for CLR it is easy, but you have some options to make more direct calls. This has a few more details <http://stackoverflow.com/questions/935664/possible-to-call-c-code-from-c>

---

16:09:24 PDT

**Question:** Can You Explain about partial clearly?

**Answer:** This doc should help [http://msdn.microsoft.com/en-us/library/wa80x488\(v=VS.80\).aspx](http://msdn.microsoft.com/en-us/library/wa80x488(v=VS.80).aspx)

---

16:09:57 PDT

**Question:** I am little confused about Generics...

**Answer:** Try this intro document when you have some time [http://msdn.microsoft.com/en-US/library/ms379564\(v=VS.80\).aspx](http://msdn.microsoft.com/en-US/library/ms379564(v=VS.80).aspx)

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16:12:18 PDT

**Question:** on a compounded "OR" condition, does it evaluate all conditions, or move on when the first condition is met?

**Answer:** C# will "short circuit" so if the first condition in an OR statement is true it will not execute the second statement

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16:12:37 PDT

**Question:** Visual Studio 2012 runs only on windows 8?

**Answer:** You can run it on Win7 as well.

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16:13:41 PDT

**Question:** Do Using a Shell32 Lib in .net code makes it unmanaged code?

**Answer:** unmanaged code is something not running in the CLR. so your .NET code will still be managed. the Shell32 is unmanaged.

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16:14:16 PDT

**Question:** Can VS detect an infinite loop at compile time?

**Answer:** No, but there are third party tools that can help detect this.

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16:16:22 PDT

**Question:** it is my understanding that COM could be native (i.e. C++) code running inside a managed class?

**Answer:** Yes. you can even write a COM object using .NET managed code

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16:17:47 PDT

**Question:** Hey Craig, Will you be doing any sharepoint app training?

**Answer:** We're delivering a "Tuning SQL Server for SharePoint Jump Start next week... Register at [aka.ms/SQL4SP](http://aka.ms/SQL4SP).

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16:17:58 PDT

**Question:** is the if statement if(dog is Dog) or the postcast != null a better way to check for a Dog (or subclass) ?

**Answer:** the dog is Dog, is the better approach

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16:18:30 PDT

**Question:** if I have 3 strings s1,s2 and s3 and the statement I have is s1=s2+s3; how many objects gets created?

**Answer:** an extra object that has s2 and s3 combined,

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16:19:09 PDT

**Question:** Does C3 have inbuilt libs for ethernet comms ? with implemented tcp/ip and udp protocols ? Or we have to develop that from scratch ?

**Answer:** This would come from the .NET base class libraries. You do not need to develop this.

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16:19:48 PDT

**Question:** reflection decrease the performance?

**Answer:** Yes it can have a performance impact

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16:20:40 PDT

**Question:** The date of the next lecture

**Answer:** Subscribe to the RSS feed at this <http://www.microsoftvirtualacademy.com/LiveEvents.aspx>.

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16:20:53 PDT

**Question:** Desparately need C# refresher. Thank you

**Answer:** Glad this has helped! 😊

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16:21:06 PDT

**Question:** If we can Reflect the s\*it out of everything, why do we bother encapsulating things? Is it just "the right way" (and easier readable) or what?

**Answer:** reflection has a performance impact, using a class library using reflection would be slow and error prone. the other approaches of using classes, interfaces and the like can be validated at compile time and leads to more stable implementations

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16:24:07 PDT

**Question:** Thanks for the heads up Craig. Is there performance hit for managed vs native COM objects?

**Answer:** yes, because you are needing to cross the managed/unmanaged boundary, but usually this isn't a big deal. if you have a high perfamnce need you may not want to implement this and just stick with full native

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16:24:41 PDT

**Question:** we lost some minutes while watching a slide saying 6 more minute break..

**Answer:** We had a little tech glitch... Starting the session now...

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16:25:28 PDT

**Question:** Is reflection expensive?

**Answer:** It does have a perf impact. if you use it for only a few times it is fine, but doing it in a loop or all the time would not be advisable

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16:27:43 PDT

**Question:** This blog : <http://blogs.msdn.com/b/lucian/> has good thinsk about this subject

**Answer:** Thanks for sharing this resource.

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16:27:49 PDT

**Question:** what is the difference between websites and webapplicattions in .net visual studio?

**Answer:** Here is an article on the different <http://vishaljoshi.blogspot.com/2009/08/web-application-project-vs-web-site.html>

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16:28:49 PDT

**Question:** What is the difference between C# and .net

**Answer:** .NET is the platform and C# is a language you can write to the .NET platform

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16:29:36 PDT

**Question:** Great session and Q&As. Yesterday attended Career Days online and whole chat window was spammed by several guys bagging for free tablets, really no point at all. This Jump Starts are really great thing and I am really hoping that it will be more sessions for developers. Thanks guys.

**Answer:** Thanks so much for the feedback, Dragan... Lots more developer content coming and several truly great courses have been posted already to MVA. Check them out at this <http://www.microsoftvirtualacademy.com/LiveEvents.aspx>.

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16:29:52 PDT

**Question:** Best online training I have seen...

**Answer:** Wow. Thanks so much!

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16:31:56 PDT

**Question:** Having a great day. Thanks, Jerry. You must be exhausted.

**Answer:** So glad you're enjoying the course. Yes, both Jerry and Daren are pretty tired. They've been awesome!

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16:35:56 PDT

**Question:** Great online training, looking forward to see more developer jump starts.

**Answer:** Lots on MVA and lots more coming!

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16:38:09 PDT

**Question:** very satisfied. Shouldn't there be very very satisfied?

**Answer:** 😊

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16:38:25 PDT

**Question:** I was in the same session Dragan. I just close the chat and just keep the Q&A open. Really annoying.

**Answer:** Sharing.

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16:41:00 PDT

**Question:** Hey guys, the <http://aka.ms/MVA-Voucher>... the system gives an error when entering that voucher: The entered voucher code is invalid. Please try again.

**Answer:** If you get rid of the # symbol you'll be all set. Just enter ProgCJump

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16:42:09 PDT



**Question:** I usually access databases directly with ADO.NET (or Enterprise Library by Patterns & Practices), ORM's, such as Entity Framework have a significant worst performance?

**Answer:** Yes there can be, but you need to do a more complete comparison of what each is doing, also you have increased developer productivity

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16:42:44 PDT

**Question:** Is there difference between using C# in website applications and windows form applications ?

**Answer:** No, other than that what you would implement for the UI would be different.

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16:43:04 PDT

**Question:** Where can I find more information on the 5-day version?

**Answer:** Great question, David... Check out this <http://www.microsoft.com/learning/en/us/course.aspx?ID=20483A> and identify a Learning Partner near you with the Class Locator (<http://www.microsoft.com/learning/en/us/classlocator.aspx>)...

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16:44:56 PDT

**Question:** What is the difference between hashing and encrypting?

**Answer:** hashing is just making a shortened representation of the data, encrypting is protecting it from view and also allowing you to go back to the unencrypted version

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16:53:57 PDT

**Question:** Daren: That's a real world scenario!! These guys have done a fantastic job presenting a great wealth of information in an entertaining and engaging way.

**Answer:** Thanks Jason! Much appreciated.

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16:55:00 PDT

**Question:** Can you recommend a jump start for developing asp.net web applications in C#? One that pulls data from database, displays on web pages, and writes back to database?

**Answer:** You will absolutely love this one. It's one of the best courses on MVA: Building Web Apps with ASP.NET Jump Start (<http://www.microsoftvirtualacademy.com/training-courses/building-web-apps-with-asp-net>)....

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16:56:27 PDT

**Question:** Before the wrap up, thanks guys, Daren, Frank, Michael, Craig, John, dachou, David and Jerry! Very excited to attend more live events like this one!

**Answer:** Thank you for your time investment and for all your thoughtful questions! Look forward to seeing you online!

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16:57:35 PDT

**Question:** I very much enjoyed this event, even if I made it after the meal break . I will definitely be revisiting it to watch the early modules to refresh/improve the knowledge. Great job guys! Keep'em coming!

**Answer:** You bet... Lots of developer content coming. Glad you enjoyed the course... We hope you watch 'em all on MVA!

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17:01:11 PDT

**Question:** Truly awesome presentation. This was my first MVA experience, but I will go back and visit the existing catalog, and will definitely be there for the new ones. I've been programming for 24 years, C# since 2002, and I learned a lot today. Thanks again to all, you guys are the absolute best.

**Answer:** This is so great to hear (read)... Thanks for sharing and thanks for investing your day with us. We hope you enjoy MVA and join us during future Jump Starts! Please vote in the poll! Thanks!

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17:03:26 PDT

**Question:** Are there going to be more courses on C# at MVA? Currently there is just this Jump Start.

**Answer:** Actually, there are two others and several more coming... This one (<http://www.microsoftvirtualacademy.com/training-courses/windows-phone-8-apps-development-jumpstart>) shows up when you search, but for some reason these don't (<http://www.microsoftvirtualacademy.com/training-courses/build-apps-for-both-windows-8-and-windows-phone-8>) and (<http://www.microsoftvirtualacademy.com/training-courses/building-web-apps-with-asp-net>)

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17:03:43 PDT

**Question:** where I can get the sample code to use in this sesión?????

**Answer:** [xaml.codeplex.com](http://xaml.codeplex.com).

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17:05:24 PDT

**Question:** Can the videos of the other courses be downloaded for viewing later? (I realize this one is unavailable at present.) If so where, how, etc? TIA

**Answer:** You definitely want to join MVA. It's free and ALL Jump Start recordings are centralized there. Visit this <http://www.microsoftvirtualacademy.com/LiveEvents.aspx> and enjoy!

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17:06:29 PDT

**Question:** How does voucher help?

**Answer:** MVA is an "Earn while you Learn" platform that gives you points for engaging in great Microsoft content. This code gives you 50 bonus points!

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17:07:36 PDT

**Question:** Thanks for this great training. Spent all day at work watching it (with approval of the boss). I work in C# all day and this was definitely worth it.

**Answer:** So glad your manager approved the time investment and, more importantly, that it was worth it from your perspective. Thanks!

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17:11:45 PDT

**Question:** Daren and Jerry are awesome! Thanks and come back.

**Answer:** We agree!

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