**Lesson #1**

**--------------------------------------**C# Back to Basics � Handling Exceptions in C#

https://code-maze.com/csharp-basics-handling-exceptions/

How do you even know this crap?

https://www.hanselman.com/blog/HowDoYouEvenKnowThisCrap.aspx

Monitoring and Observability in the .NET Runtime

http://mattwarren.org/2018/08/21/Monitoring-and-Observability-in-the-.NET-Runtime/

What�s Worse Than Not Automating Your Software Delivery Pipeline?

https://www.leadingagile.com/2018/08/whats-worse-than-not-automating-your-software-delivery-pipeline/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+LeadingAgile+%28LeadingAgile%29

Not Invented Here - The Daily Software Anti-Pattern

https://exceptionnotfound.net/not-invented-here-the-daily-software-anti-pattern/

Bing.com runs on .NET Core 2.1!

https://blogs.msdn.microsoft.com/dotnet/2018/08/20/bing-com-runs-on-net-core-2-1/

Why Developers Become Frustrated And Companies Can�t Find Talent

https://codeburst.io/why-developers-become-frustrated-and-companies-cant-find-talent-c4114d8b72ac

**Lesson #2**

**--------------------------------------**

- Grades are on Blackboard :)

- No interview questions yet :(

How to extract a data-rich service from a monolith

https://martinfowler.com/articles/extract-data-rich-service.html

Uncle Bob Martin on Clean Software, Craftsperson, Origins of SOLID, DDD, & Software Ethics

https://www.infoq.com/podcasts/uncle-bob-solid-ddd?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

dotnet/BenchmarkDotNet

https://github.com/dotnet/BenchmarkDotNet

.NET Core, BenchmarkDotNet: for vs foreach performance

https://carlos.mendible.com/2018/08/22/net-core-benchmarkdotnet-for-vs-foreach-performance/

**Lesson #3**

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**Lesson #4**

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Team Management Crash Course: 3 Best Practices

https://developer.amazon.com/blogs/appstore/post/6e4c17b8-c5bf-45cf-8b30-9e77747db602/team-management-crash-course-3-best-practices

The Business Case for Unit Testing � Part 2

https://www.typemock.com/business-case-for-unit-testing/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+Typemock+%28The+Typemock+Insider%29

How to Linux for SQL Server DBAs � Part 1

https://www.red-gate.com/simple-talk/sql/sql-linux/how-to-linux-for-sql-server-dbas-part-1/

Stovepipe Enterprise - The Daily Software Anti-Pattern

https://exceptionnotfound.net/stovepipe-enterprise-the-daily-software-anti-pattern/

The Second Edition of "Refactoring"

https://martinfowler.com/articles/refactoring-2nd-ed.html#rough-cut-available-on-safari

C# Back to Basics � Methods in C#

https://code-maze.com/csharp-basics-methods/

Extensions to LINQ to Objects https://morelinq.github.io/

https://github.com/morelinq/MoreLINQ

How to extract a data-rich service from a monolith

https://martinfowler.com/articles/extract-data-rich-service.html#Step3.CreateNewTablesToSupportTheLogicOfTheNewServiceInTheMonolith

Git Commands to Keep a Fork Up to Date

https://dzone.com/articles/git-commands-to-keep-a-fork-up-to-date?utm\_medium=feed&utm\_source=feedpress.me&utm\_campaign=Feed:%20dzone%2Fdevops

Lava Flow - The Daily Software Anti-Pattern

https://exceptionnotfound.net/lava-flow-the-daily-software-anti-pattern/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+ExceptionNotFound+%28Exception+Not+Found%29

Localization & Generics

www.hishambinateya.com/localization-and-generics

Top 10 Hidden Gems in Visual Studio

https://iamtimcorey.com/vs-gems/

Sketch 2 Code

https://sketch2code.azurewebsites.net/

Reinventing the Square Wheel - The Daily Software Anti-Pattern

https://exceptionnotfound.net/reinventing-the-square-wheel-the-daily-software-anti-pattern/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+ExceptionNotFound+%28Exception+Not+Found%29

**Lesson #5**

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Microservices in a Post-Kubernetes Era

https://www.infoq.com/articles/microservices-post-kubernetes?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

AES Encryption In C#

https://www.c-sharpcorner.com/article/aes-encryption-in-c-sharp/

Life Beyond Distributed Transactions: An Apostate's Implementation - Dispatcher Failure Recovery

https://jimmybogard.com/life-beyond-distributed-transactions-an-apostates-implementation-dispatcher-failure-recovery/

**Lesson #6**

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Life Beyond Distributed Transactions: An Apostate's Implementation - Document Example

https://jimmybogard.com/life-beyond-distributed-transactions-an-apostates-implementation-document-example/

How to Code Review

http://geekswithblogs.net/TimothyK/archive/2018/09/05/how-to-code-review.aspx?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+geekswithblogs+%28Geekswithblogs.net%29

Impostor Syndrome.

https://dev.to/ruthmichaela/impostor-syndrome-ig4

Death by Planning - The Daily Software Anti-Pattern

https://exceptionnotfound.net/death-by-planning-the-daily-software-anti-pattern/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+ExceptionNotFound+%28Exception+Not+Found%29

Understanding the Difference Between CI and CD

https://thenewstack.io/understanding-the-difference-between-ci-and-cd/

Changes for the 2nd Edition of Refactoring

https://martinfowler.com/articles/refactoring-2nd-changes.html

How to teach yourself hard things

https://jvns.ca/blog/2018/09/01/learning-skills-you-can-practice/

Using test stubs instead of mocks

https://whereslou.com/2018/08/using-test-stubs-instead-of-mocks/

C# Async API: The Missing Parts

https://hackernoon.com/c-async-api-the-missing-parts-2229a2b3732

C# � async and await � who are you?

http://damian.laczak.net.pl/blog/2018/09/02/c-async-and-await-who-are-you/

God Objects - The Daily Software Anti-Pattern

https://exceptionnotfound.net/god-objects-the-daily-software-anti-pattern/

I know why rejection emails suck. I write them.

https://triplebyte.com/blog/rejection-feedback

Improving your productivity in the Visual Studio Editor

https://blogs.msdn.microsoft.com/visualstudio/2018/08/30/improving-your-productivity-in-the-visual-studio-editor/

When everything blows up

http://theengineeringmanager.com/growth/when-everything-blows-up/?utm\_source=programmingdigest&utm\_medium=rss&utm\_campaign=featured

Collection of small but useful extensions methods #1

http://chrisstclair.co.uk/collection-of-small-but-useful-extensions-methods-1/?utm\_source=csharpdigest&utm\_medium=rss&utm\_campaign=featured

**Lesson #7**

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Cabbagetown Festival

https://cabbagetownto.com/cabbagetown-festival/

Follow the ALM | DevOps Ranger blogs and twitter feeds

https://blogs.msdn.microsoft.com/visualstudioalmrangers/2018/09/06/follow-the-alm-devops-ranger-blogs-and-twitter-feeds/

Building Better Blockchain Use Cases

https://www.infoq.com/presentations/blockchain-projects-success?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

Enterprise Architecture

https://learn.utoronto.ca/courses-programs/business-professionals/certificates/enterprise-architecture

Cloud Computing

https://learn.utoronto.ca/courses-programs/business-professionals/certificates/cloud-computing

WebAssembly: How and why

https://blog.logrocket.com/webassembly-how-and-why-559b7f96cd71

**Lesson #8**

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In Defense of Lazy Loading

https://enterprisecraftsmanship.com/2018/09/10/defense-lazy-loading/

What's The Best Way for Developers to Learn About New Tech?

https://www.linkedin.com/pulse/whats-best-way-developers-learn-new-tech-andy-schwam/

REST API: Your Guide to Getting Started Quickly

https://stackify.com/rest-api-tutorial/

How to get started with Azure and .NET

https://blogs.msdn.microsoft.com/webdev/2018/09/04/how-to-get-started-with-azure-and-net/

Cargo Cult Programming - The Daily Software Anti-Pattern

https://exceptionnotfound.net/cargo-cult-programming-the-daily-software-anti-pattern/

The Lazy functor

http://blog.ploeh.dk/2018/09/10/the-lazy-functor/

Techie to tech lead: My five biggest mistakes

https://www.thoughtworks.com/insights/blog/techie-tech-lead-my-5-biggest-mistakes?utm\_source=programmingdigest&utm\_medium=rss&utm\_campaign=featured

Select Star SQL

https://selectstarsql.com/

Async Streams in C# 8

https://www.infoq.com/articles/Async-Streams?utm\_source=csharpdigest&utm\_medium=rss&utm\_campaign=featured

**Lesson #9**

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Boat Anchor - The Daily Software Anti-Pattern

https://exceptionnotfound.net/boat-anchor-the-daily-software-anti-pattern/

Self-Deprecation Needs to Stop

https://dev.to/mauricehayward/-self-deprecation-needs-to---46fo

.NET Conf

https://www.dotnetconf.net/agenda

Channel 9

https://channel9.msdn.com/

Life Beyond Distributed Transactions: An Apostate's Implementation - Sagas

https://jimmybogard.com/life-beyond-distributed-transactions-sagas/

What's new in C# 7.3

https://docs.microsoft.com/en-us/dotnet/csharp/whats-new/csharp-7-3

Why Containers are the future

http://www.lhotka.net/weblog/WhyContainersAreTheFuture.aspx

How the TOGAF Standard Serves Enterprise Architecture

https://www.infoq.com/articles/TOGAF-enterprise-architecture?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

Modernizing a Monolithic Application using Microservices and Azure

https://blogs.msdn.microsoft.com/najib/2017/09/20/thinking-of-going-to-the-cloud-with-your-web-app-here-is-an-example/

Big Ball of Mud - The Daily Software Anti-Pattern

https://exceptionnotfound.net/big-ball-of-mud-the-daily-software-anti-pattern/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+ExceptionNotFound+%28Exception+Not+Found%29

https://blogs.msdn.microsoft.com/najib/2017/09/20/thinking-of-going-to-the-cloud-with-your-web-app-here-is-an-example/

Developer Survey Results 2018

https://insights.stackoverflow.com/survey/2018/

The rise of non-microservices architectures

https://developers.redhat.com/blog/2018/09/10/the-rise-of-non-microservices-architectures/

**Lesson #10**

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- Test marks are up on BlackBoard

- will review on Monday

.NET Core

https://dotnet.github.io/

https://github.com/dotnet/core

https://www.microsoft.com/net/learn/get-started-with-dotnet-tutorial

C# Back to Basics � Working With Files, File and Directory

https://code-maze.com/csharp-basics-file-directory/

A complete containerized .NET Core Application microservice that is as small as possible

https://www.hanselman.com/blog/ACompleteContainerizedNETCoreApplicationMicroserviceThatIsAsSmallAsPossible.aspx

How to Achieve a Resilient Architecture

https://www.infoq.com/news/2018/09/resilient-architectures-patterns?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

How to Consume Web APIs in Blazor

https://visualstudiomagazine.com/articles/2018/09/07/blazor-apis.aspx

How can I pause my code in Visual Studio? Breakpoints FAQ

https://blogs.msdn.microsoft.com/visualstudio/2018/09/13/how-can-i-pause-my-code-in-visual-studio-breakpoints-faq/

What is OAUTH

https://searchmicroservices.techtarget.com/definition/OAuth

OAuth 2.0

https://oauth.net/2/

**Lesson #11**

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**Lesson #12**

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**Lesson #13**

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Networking Your Microservices Applications

https://www.infoq.com/presentations/microservices-networking?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

Azure Devops: Test & Feedback Intro

https://gregorsuttie.com/2018/09/20/azure-devops-test-feedback-intro/

C# Intermediate � Properties in C#

https://code-maze.com/csharp-properties/

Azure DevOps Continuous Build/Deploy/Test with ASP.NET Core 2.2 Preview in One Hour

https://www.hanselman.com/blog/AzureDevOpsContinuousBuildDeployTestWithASPNETCore22PreviewInOneHour.aspx

Distributed .NET Core � Teaser

https://piotrgankiewicz.com/2018/09/19/distributed-net-core-teaser/

Threading in C#

http://www.albahari.com/threading/

How to Become a Better Software Developer: A Handbook on Personal Performance

https://www.7pace.com/blog/become-a-better-programmer-skills-development

C# Intermediate � Classes and Constructors in C#

https://code-maze.com/csharp-classes-constructors/

What Is Kubernetes? A Guide to Containerization and Deployment

https://www.toptal.com/kubernetes/what-is-kubernetes

Linq Tutorial: A Complete Beginner�s Gentle Introduction

https://blog.ndepend.com/linq-tutorial-complete-introduction/

C# 8 Small Features

https://www.infoq.com/news/2018/09/csharp-8-small-features?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

The DDD Do-Over

https://www.infoq.com/articles/ddd-do-over?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

The future of ASP.NET SignalR

https://blogs.msdn.microsoft.com/webdev/2018/09/17/the-future-of-asp-net-signalr/

**Lesson #14**

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- Assignment 6 marks are on BB

How To Use Trello Like A Pro

https://blog.trello.com/how-to-use-trello-like-a-pro

4 Common Mistakes with the Repository Pattern

https://programmingwithmosh.com/entity-framework/common-mistakes-with-the-repository-pattern/

Asynchronous functors

http://blog.ploeh.dk/2018/09/24/asynchronous-functors/

Design considerations for hybrid applications � Overview

https://blogs.msdn.microsoft.com/azurecat/2018/09/22/design-considerations-for-hybrid-applications-overview/

.NET Development Yesterday, Today and Tomorrow

https://www.infoq.com/presentations/dot-net-framework-standard-core?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

Threading in C#

http://www.albahari.com/threading/

**Lesson #15**

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Microsoft Ignite

https://www.microsoft.com/en-us/ignite

How To Check For Nulls In C# a.k.a. How To Thwart A Super Villian

https://rimdev.io/how-to-check-for-nulls-in-c-sharp/

Gold Plating - The Daily Software Anti-Pattern

https://exceptionnotfound.net/gold-plating-the-daily-software-anti-pattern/

Defining Web API Services and Clients with NSwag

https://visualstudiomagazine.com/articles/2018/08/01/defining-web-api-services-nswag.aspx

**Lesson #16**

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John's Pocket Feed -> need RSS Reader

https://getpocket.com/users/\*em1398781209916a27b/feed/all

Performance in .NET � Part 1

https://weblogs.asp.net/ricardoperes/performance-in-net-part-1?WT.mc\_id=DX\_MVP4025064

Buffer

https://buffer.com/

C# Intermediate � Anonymous and Nullable Types

https://code-maze.com/csharp-anonymous-nullable-types/

Microsoft Learn:

https://www.youtube.com/watch?v=yPQ8GXfW4Ok

Bikeshedding - The Daily Software Anti-Pattern

https://exceptionnotfound.net/bikeshedding-the-daily-software-anti-pattern/?utm\_source=feedburner&utm\_medium=feed&utm\_campaign=Feed%3A+ExceptionNotFound+%28Exception+Not+Found%29

Goodbye JavaScript, Hello WebAssembly

https://www.telerik.com/blogs/goodbye-javascript-hello-webassembly

Getting Started with CQRS � Part 1

https://www.red-gate.com/simple-talk/dotnet/c-programming/getting-started-with-cqrs-part-1/

CQRS

https://martinfowler.com/bliki/CQRS.html

Java 11 Released

https://www.infoq.com/news/2018/09/java11-released?utm\_campaign=infoq\_content&utm\_source=infoq&utm\_medium=feed&utm\_term=global

Here's what's new and coming to .NET Core with versions 2.1, 2.2, and 3.0

https://www.neowin.net/news/heres-whats-new-and-coming-to-net-core-with-versions-21-22-and-30/

C# Intermediate � Static Members, Constants and Extension Methods

https://code-maze.com/csharp-static-members-constants-extension-methods/

The redux of the fallacies of distributed computing

https://ayende.com/blog/184545-A/the-redux-of-the-fallacies-of-distributed-computing

**Interview Questions:**

Below are the questions i was asked during the interview.

* About my previous work experience and projects
* How didyou ensure database performance when dealing with huge volume of data?
* how did you replicate or addressed the issues which may arise in production with huge volume of data?
* What is n-tier architecture?
* What are the security measures implemented to protect DataAccess Layer?
* What is virtual Keyword?
* Difference between Abstract class and an Interface.
* How garbage collector works?
* When we can use "using" code block?
* What is the difference between Dispose and Finalize Methods?
* What is Managed and Unmanaged Code?
* What is async and await? when to use it?
* I was given an online assignment to implement a stack with having methods Push,Pop,Size; in which specific scenario your Pop method will not work? "question was specific to my implementation"