.NET5 와 F# 5 그리고 해외 .NET 커뮤니티

@ Thursday .NET Live

Hayden

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INTRODUCTION

What Brought Me Here

– My Story

- Early: Computer -> VB -> Dark Age
- Mid: College -> Scheme -> Not My Way!
- Present: Computer -> PL Geek

– .NET5 and F#5

- Brief Coverage
- History
- Learning Resources

.NET 5 AND F#

.NET 5

– Major Changes
- *Single* .NET: .NET Core + Xamarin
  – Unified Libraries, toolset, SDK, and runtime
- Native Applications for Multiple Platforms
- Web Applications for Multiple Platforms
- Cloud Native Applications (single file < 50 MB microservices)

– For More Info: https://devblogs.microsoft.com/dotnet/announcing-net-5-0-preview-1/

F# 5

– Summary: *For Better Interactive and Analytical Programming*

– Major Changes

- Package references for F# scripts
- Enhanced slicing
- The `nameof` function
- Opening static classes
- Applicative computation expressions

F# 5

- For More Info: https://devblogs.microsoft.com/dotnet/announcing-f-5-preview-1/

- F# 5.0 (preview) notebook: https://gist.github.com/cartermp/6b91c3561c6a5efca4288dca37c15edc

- F# 5 and .NET 5 (Philip Carter): https://www.slideshare.net/PhillipCarter6/fsharp-5southkoreameetup2020/

Reasons that You Care about F#

– Welcoming and Vibrant Community

- F# Software Foundation: (https://fsharp.org/)
- F# Slack: Become a member of FSF (http://foundation.fsharp.org/join)

– Nice Frameworks

- Fable: F# to Javascript Transpiler (http://fable.io/)
- Find Out More in `Guides` section at F# Software Foundation (https://fsharp.org/)

– Very Nice Interactive Programming

- Built-in interpreter support via `dotnet fsi`
- Jupyter Support via `dotnet-try`

Brief History of F#

– Year 1997

- In reponse to Java, Microsoft initiated internal projects that became .NET

- FP Researchers gathered at Microsoft Research, Cambridge UK
  – Big Names: Andy Gordon, Luca Cardelli, Simon Peyton Jones, Nick Benton, Cedric Fournet, Sir Tony Hoare, Don Syme

– Initiation of

- 1998: .NET Generics
- 2002: F#

Brief History of F#

– F# was one of the responses to OOP of the mid-1990s
  - by the advocates of strongly-typed FP
– Three Eras
  - F# 1.0 (2004-2007): Development of Core Features
  - F# 2.0 (2007-2010): Productization of F# by Microsoft
  - F# 3.0-4.5 (2010-present): Open-source, Cross-platform language
– For More Information, read **The Early History of F#** (https://fsharp.org/history/hopl-final/hopl-fsharp.pdf)

How to Get Started with F# (NOW!)

- Go to Resources
  - Microsoft Learn: https://dotnet.microsoft.com/languages/fsharp
  - Microsoft Docs: https://docs.microsoft.com/dotnet/fsharp/
- Download and Install from .NET Core (https://dotnet.microsoft.com/download)
- Open notepad or any editor you like
- Type the following `printfn "Hello World!`
- Save it as `script.fsx`
- Run `dotnet fsi script.fsx`

HOW TO STAY CURRENT WITH F#

Listen to the Community Leaders

- They are *Very Loud on Social Media*
- Check out Hackernews and Reddit for responses from community at large

Don Syme

- *The Person Who Designed F#*
- Twitter: https://twitter.com/dsymetweets

Don Syme

Scott Wlaschin

– Have you heard
https://fsharpforfunandprofit.com ?

– Author of *Domain Modeling Made Functional*

– Go Check Out *All* of His Presentations and Podcasts

– Twitter: https://twitter.com/ScottWlaschin

Scott Wlaschin

– Quotes

- Learn as many languages as possible, especially if you are young
- There are no technical problems, it's all human problem
- It's about paradigm, not about a language

Scott Wlaschin

Krzysztof Cieślak

– The author and creator of the Ionide Project (https://ionide.io/)

– 발음: *크리/시/토프 치/에실랙*

– Twitter: https://twitter.com/k_cieslak

– Twitch: https://www.twitch.tv/k_cieslak/videos

Krzysztof Cieślak

Other Big Players

– Dave Thomas

- Twitter: https://twitter.com/7sharp9_exhumed
- YouTube: https://www.youtube.com/user/Dethomas75/
- Twitch: https://www.twitch.tv/7sharp9_dev/videos

– Gareth Hubball

- Twitter: https://twitter.com/GarethHubball
- Twitch: https://www.twitch.tv/garethhubball

Other Big Players

– Roman Sachse

- Twitter: https://twitter.com/R0MMSEN

- YouTube: https://www.youtube.com/channel/UCOX5DkLyqctM-wkOAU_mUpA

– Frank A. Krueger

- Twitter: https://twitter.com/praeclarum

- Personal: https://praeclarum.org/

- Podcast: https://www.mergeconflict.fm/

Who Else?

– Philip Carter

- .NET PM @ Microsoft
- Twitter: https://twitter.com/_cartermp
- Blog: https://devblogs.microsoft.com/dotnet/author/phcart microsoft-com/

– Mathias Brandewinder

- Economist turned Developer speciailized in Data Science
- Twitter: https://twitter.com/brandewinder

Who Else?

– Isaac Abraham

- F# MVP, Founder of CompositionalIT
- Twitter: https://twitter.com/isaac_abraham
- Personal: cockneycoder.wordpress.com

F# RELATED RESOURCES

There are many great community driven resources

- Videos
- Meetup
- Conferences
- Podcasts

Videos

- F# Online

- Community for F#: https://www.youtube.com/channel/UCCQPh0mSMaVpRcKUeWPotSA/featured

- The Live Coders (.NET at Large)

Conferences

- NDC Conferences: https://twitter.com/NDC_Conferences, ndcconferences.com

- F# Europe: https://twitter.com/fsharp_eu, https://fsharp.eu

- Open Fhsarp: openfsharp.org

- Lambda Conf (FP in General): https://twitter.com/lambda_conf

Meetups

- CaptionFsharp: https://capitolfsharp.org
- Southern Fried Fsharp: https://southernfriedfsharp.com
- Austin F#: https://t.co/WlsmDEcF49?amp=1
- Briston F#: https://t.co/jpXhyFFmLV?amp=1
- F# Seattle: https://twitter.com/FSharpSeattle
- And Many More…

UPCOMING EVENT

The Live Coders Conference

– Sign Up Page:
https://www.subscribepage.com/lcc2020

– Twitter: https://twitter.com/thelivecoders

– Twitch: twitch.tv/team/livecoders

– GitHub: https://github.com/livecoders/home

SPEAKER LIST

caLLowCreation	Jones S. Cropper	Developing tools for developers
MaryJoStaebler	Mary Jo Staebler	Using a boilerplate to create a WordPress Plugin
TrezyCodes	Trezy	a11y from the ground up
nick_larsen	Nick Larsen	Reproducing AlphaZero
LuckyNoS7evin	Andy Morrell	Finding your niche to stay relevant, in your career
nnjaio	Nina Zakharenko	Debugging Python: Goodbye Print, Hello Debugger
FullStackLive	Jochen Lillich	How to build up resilience and keep burnout at bay
codingbandit	Carey Payette	Using Azure IoT Central to form a basis for your IoT Solutions
sorskoot	Timmy Kokke	How to build a WebXR Game in 13KB
JitterTed	Ted Young	That's Not OOP: Getters and Setters are Still Evil
mbcrump	Michael Crump	Azure for Developers: In Plain English
sadmoody	Mahmood Hikmet	The Trolley Problem Problem: Talking About the Ethics of Self Driving Cars
illuminatedspace	Liz Phillips	Getting Your Second Coding Job
noopkat	Suz Hinton	Techniques for Interacting with Microcontrollers in the Browser

The Live Coders Conference
9th April 2020
twitch.tv/TheLiveCoders

The Live Coders

WHAT'S NEXT?

Personal Ambition

– Twitch or YouTube Live F# Coding

- In depth study on the History of F#

- Serverless Computing

- Artificial Intelligence and Machine Learning

- Fullstack Web Apps

– ML.NET & Q#

ONE MORE THING

Special Thanks

- [F# Korea](#) and [.NET Dev KR](#)
- [Microsoft MVP Jung Hyun Nam](#)
- Markdown, Pandoc, Office 365