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Being more efficient with VS Code

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Speaker intro

- Tobias Fenster

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- David Feldhoff

Developer at GWS mbH in Germany

No regional director, no MVP
VS Code Ext. Creator (AL CodeActions)

FeldhoffDavid on Twitter and LinkedIn



Agenda

- Snippets
- Configurations
- Regular expressions
- Recommended extensions and their usage
- Build your own extension
- Q&A



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Snippets

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Snippets

- Snippets = Code templates with placeholders
- Bunch of snippets already exist, e.g. for
 - whole objects
 - Object parts
 - page actions / fields / parts, report data items / columns, ..
 - constructs
 - if, if/else, case, case/else, for, foreach, repeat, while
 - ...
- Command showing all snippets: "Insert Snippet"



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Custom Snippets

- <https://code.visualstudio.com/docs/editor/userdefinedsnippets>
- Start with extension “Snippet Creator” and then -> Configure User Snippets
- Tabstops:
 - \$1, \$2 are tabstops. \$0 is the last tabstop and ends the snippet mode
 - Can have placeholders
 - Hard-coded values like \${2:true}
 - With variables like \${1:\$CLIPBOARD}
 - With choices like \${1 | Codeunit,Page,Table,Report | }
- Supports replace-transformations with regular expressions (later more)

Excursion: Multi-Cursor Shortcuts

- Shown:
 - Add Selection To Next Find Match Ctrl + D
 - Select All Occurrences of Find Match Ctrl + Shift + L
- Other possibilities:
 - Add Cursors to Line Ends Shift + Alt + I
 - Add Cursor Above Ctrl + Alt + UpArrow
 - Add Cursor Below Ctrl + Alt + DownArrow
 - Place multiple Cursors manually Alt + Mouse click



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Configuration

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Move and code faster

- Fast scrolling: Alt
- Go to symbol in file: Ctrl + Shift + O
- Breadcrumbs: Open and select: Ctrl + Shift + .
- Navigate to line: Ctrl + G
- Configurable:
 - Default list
 - Add / change shortcuts
- Configurations
 - Can sync across machines
 - Has profiles for different setups



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Work faster

- Interesting configurations that make you more efficient:
 - Merge editor for conflicts (`git.mergeEditor`)
 - Format on save mode (`editor.formatOnSaveMode`)
 - Simple files dialog (`files.simpleDialog.enable`)



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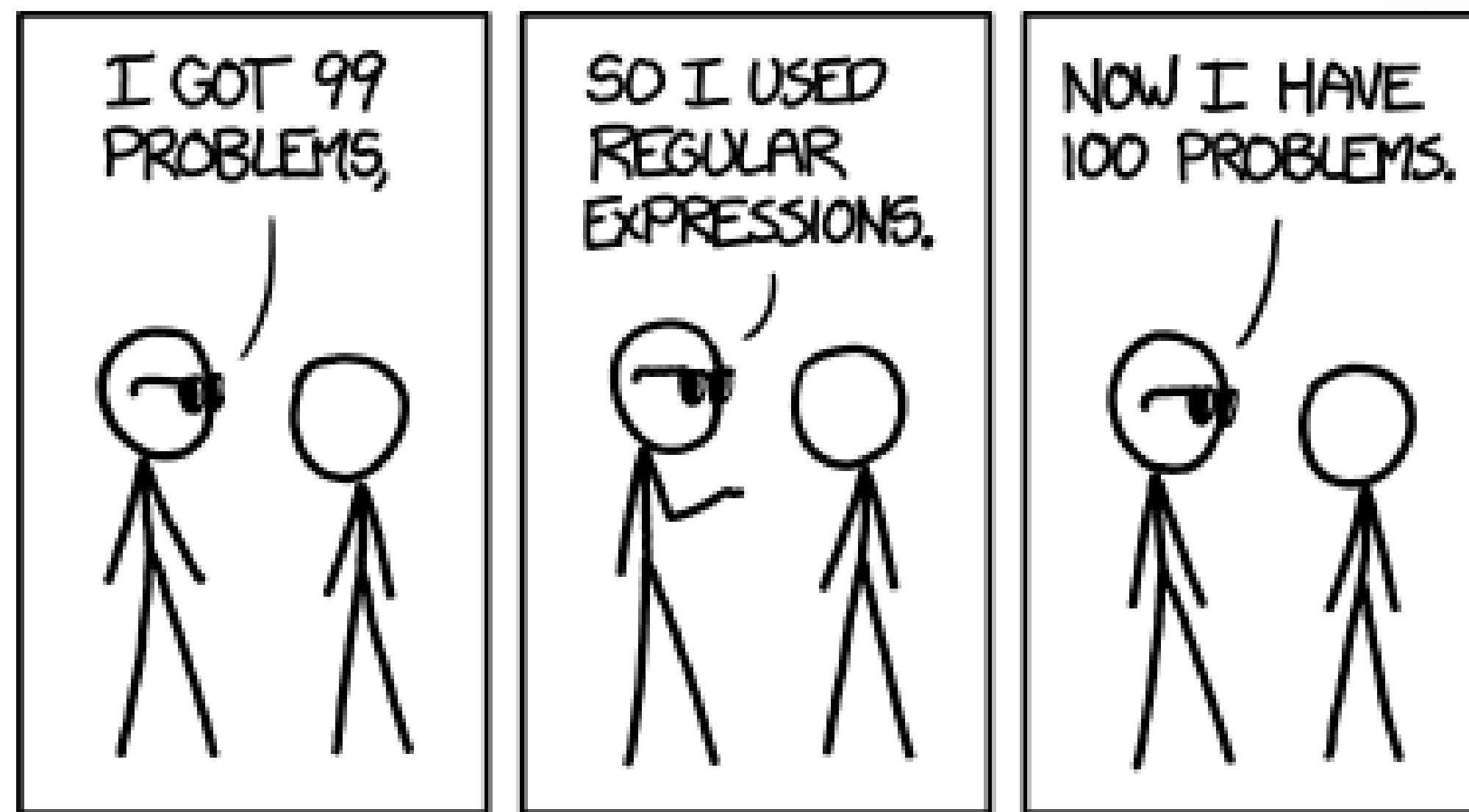
Regular Expressions (Regex)

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Regex

- Regular expression ("regex"): describes a pattern of a text
 - Search for a specific pattern in a text
 - More powerful replace functionality



```
/^[a-zA-Z_\.-]+@(([a-zA-Z_\.-])+\.)+[a-zA-Z]{2,4}$/
```


Regex

- Why so scared? What we have to learn is only 7 or 8 things:
 - Special characters
 - Groups
 - Character classes
 - Special character classes
 - Quantifiers
- Demo: Get all parts of a table definition (object type, id and name)
 - E.g. table 18 Customer



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Show-/Usecases of regex

- Create permission set to show regex-replace
- Find relevant test library procedures for creating sales lines



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Recommended extensions

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Before I start – THANKS to all the creators!



AZ AL Dev Tools/AL Code Outline v3.0.35
Andrzej Zwierzchowski
AZ AL Development Tools: AL code outline, object browser, object creators



AL Variable Helper v2.4.0
Rasmus Aaen
Intellisense to assign correct variable names in AL



AL Toolbox v2.0.22
Bart Permentier
AL Language Regions and Snippets



AL Object ID Ninja v2.9.1
Vjeko.com
Manage object IDs in multi-user environments with mind-boggling simplicity.



AL Test Runner v0.7.13
James Pearson
Test runner for AL tests for Business Central development



AL Structure Creator v0.3.8
EdySpider
Create folder structure for AL projects



AL Object Helper v2.2.10
DSaladin
Quick and easy access to any al object in your project



AL Object Designer v0.2.4
Márton Sági
Object Designer optimized for (Dynamics 365 Business Ce...



AL Studio v0.9.934 Preview
Dynasist Solutions Kft.
Visual editor/navigation tools for AL development.



ATDD.TestScriptor v0.9.232
fluxus.nl
Acceptance Test-Driven Development with Business Central



BusinessCentral.LinterCop v0.1.4 Preview
Stefan Maron
Provides Linting for the AL Language (Business Central)



AL CodeActions v1.0.20
David Feldhoff
Adds codeactions to the AL language



XLIFF Sync v1.3.0
Rob van Bekkum
A tool to keep XLIFF translation files in sync.



AL Extension Pack v1.0.19
waldo
Everything you need for AL development (Microsoft Dyna...



waldo's CRS AL Language Extension v1.5.19
waldo
Make working with the (Dynamics NAV / 365) AL Language easier and more efficient.



NAB AL Tools v1.26.0
NAB Solutions AB
Development and translation management tool for AL language and Microsoft Dynamics...



AL Navigator v0.5.0
Waldemar Brakowski
Create variables and parameters like a boss. Navigate through al files with aweso...



AL XML Documentation v1.1.7
365 business development
Generate XML documentation comments for AL source code and create markdown docu...

Create/extend objects faster

- Object Wizards (AZ AL Dev Tools)
- Add multiple fields (AZ AL Dev Tools)
- Assign IDs in multi-user repos (AL Object ID Ninja)



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Clean up your code faster

- Code transformation commands (AZ AL Dev Tools)
 - Remove with-usage
 - Sort variables
 - Remove unused variables
 - Add parentheses
 - ...
- Disable specific warnings with pragma (AL Toolbox)
- Get more code cops to comply with :)
(BusinessCentral.LinterCop)

Navigate faster

- Object explorer (AZ AL Dev Tools, AL Object Designer, AL Studio)
- Navigate to objects (AL Object Helper)



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Code faster (1)

- Conversions
 - Convert Options to enums (AL CodeActions)
 - Create interfaces based on codeunit (AZ AL DevTools)
 - Convert text to labels (AL CodeActions)
 - Extract procedures (AL CodeActions)



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Code faster (2)

- Conversions
 - Convert Options to enums (AL CodeActions)
 - Create interfaces based on codeunit (AZ AL DevTools)
 - Convert text to labels (AL CodeActions)
 - Extract procedures (AL CodeActions)
- Create Variables (AL Variable Helper & AL Navigator)
- Work with procedures (AL CodeActions)
 - Create procedures/publishers
 - Add parameters to procedures

Demo: Combining snippets, regex, VSCode extensions

- Complete test procedure-snippet



Code faster (3)

- Maybe in the future? GitHub Co-Pilot – AI

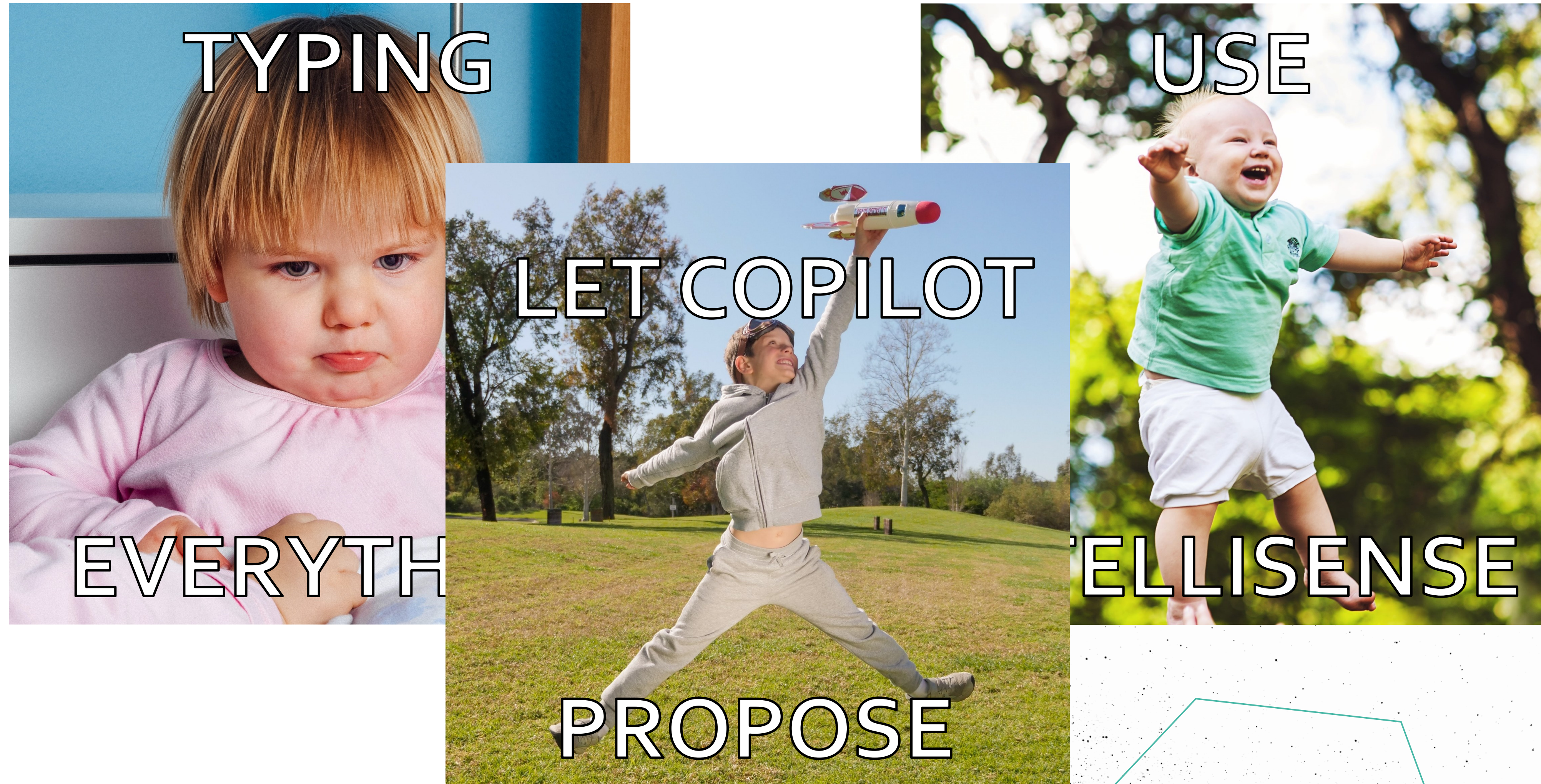


Build your own extension

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Interlude: Coding without typing – GitHub Copilot



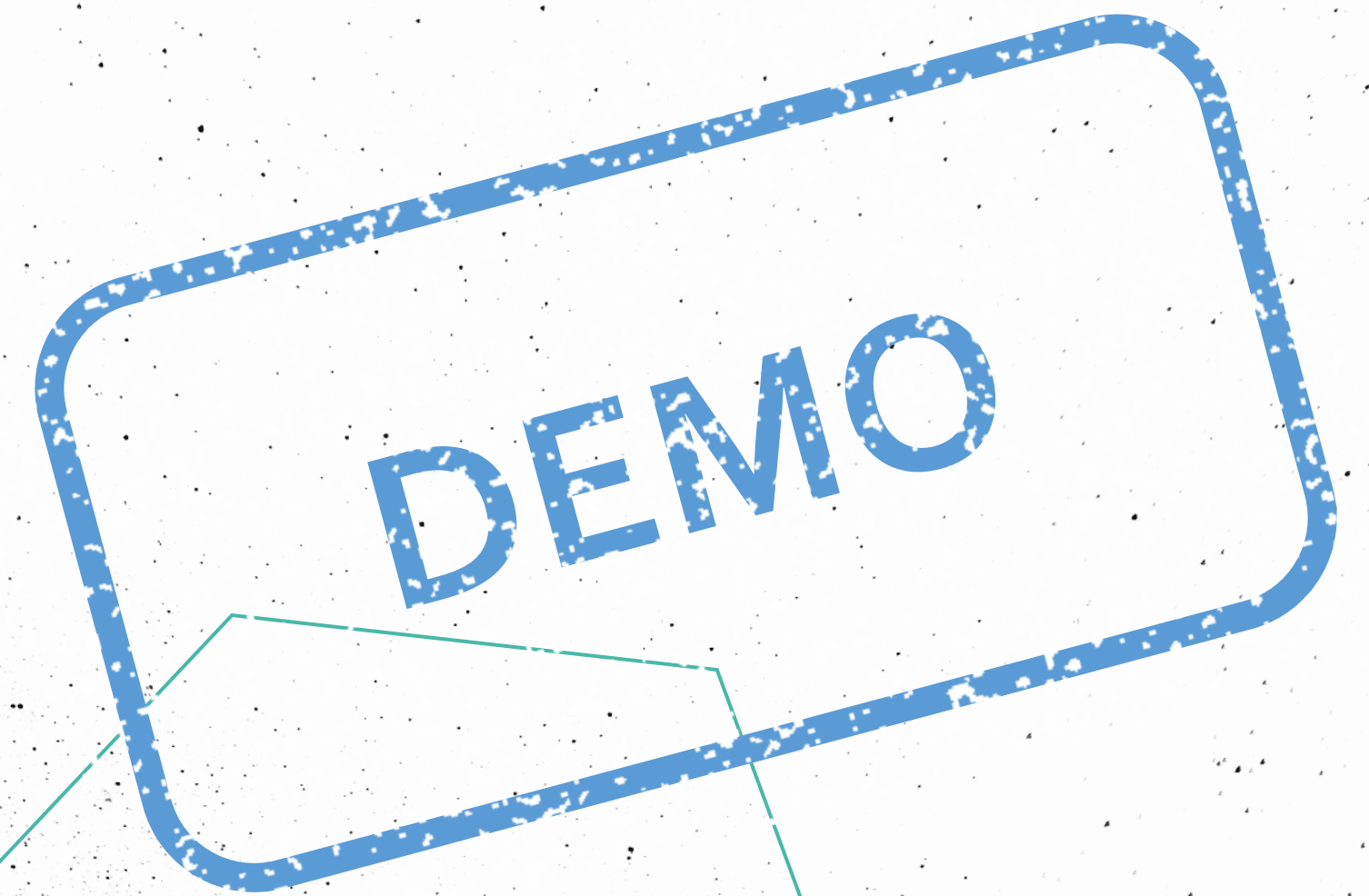
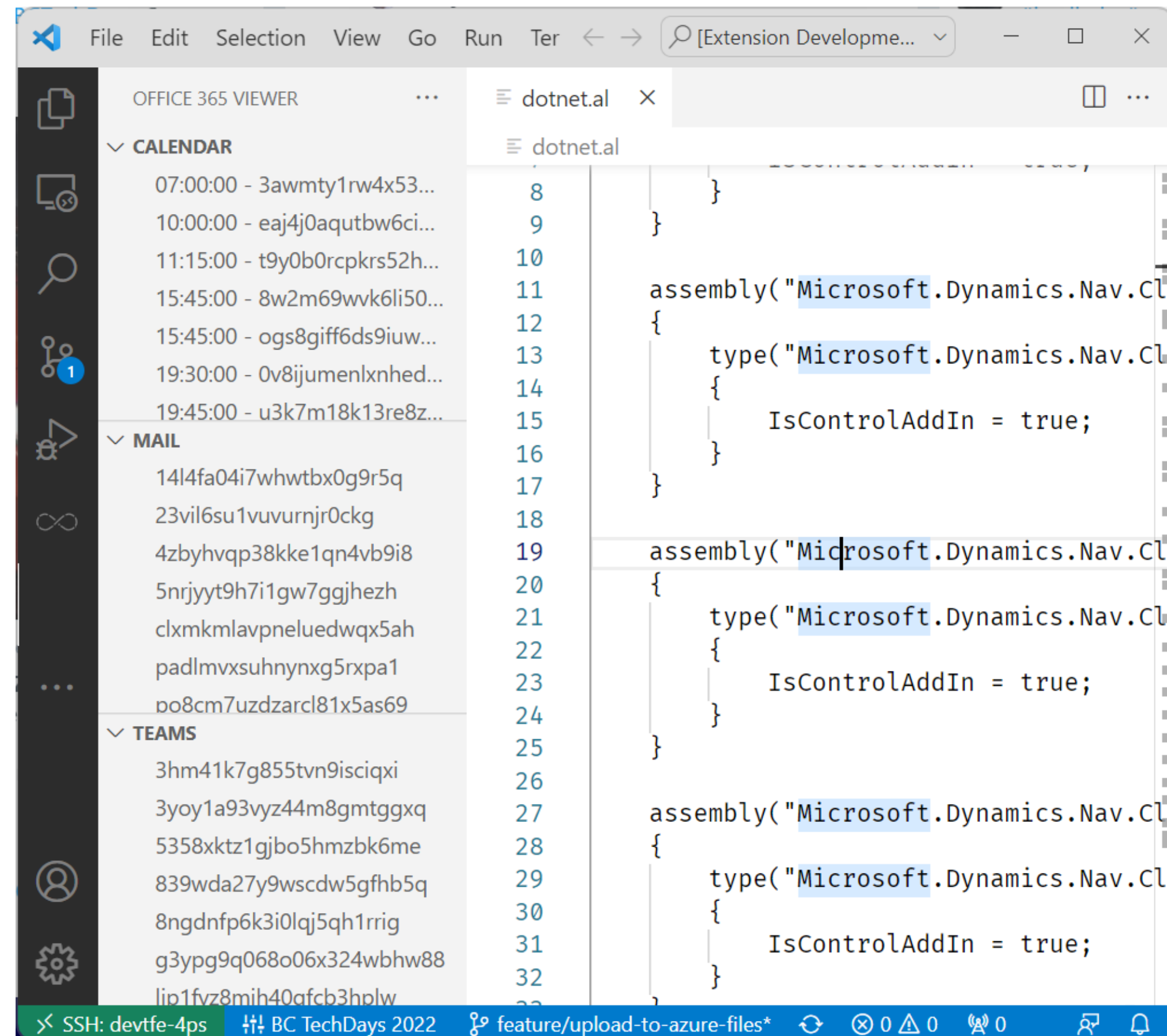
Build your own extension

- What is possible?
 - Change the look of VS Code with a color or file icon theme - Theming
 - Add custom components & views in the UI - Extending the Workbench
 - Create a Webview to display a custom webpage built with HTML/CSS/JS - Webview Guide
 - Support a new programming language - Language Extensions Overview
 - Support debugging a specific runtime - Debugger Extension Guide
- Snippets in extensions
- Extension packs
- Extend extensions

Work more efficient with your own extension

- What would make you most efficient? No distractions!
- Shut down Outlook and Teams, but get important notifications and meeting reminders directly in VS Code

- yo code!
- GitHub Copilot





Any Questions?

Thank
You!