Using Visual Studio Code for TypeScript

Course Map: Day 1

1. ASP.NET Core Architecture
2. Getting Started with ASP.NET Core
3. Design Patterns, Unit Testing
4. Entity Framework Core

Course Map: Day 2

5. Introduction to TypeScript

6. **Using VS Code for TypeScript**

7. Angular 2 Architecture

8. Using Angular CLI for Client Apps

Agenda

- Folder-based projects
- Navigation
- Enabling Intellisense
- Compiler options
- Debugging
- Scaffolding with Yeoman

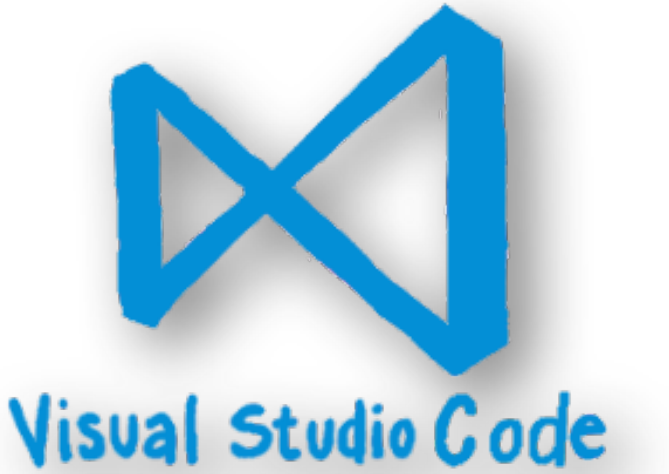
Get the Bits

github.com / tonysneed /

Kliant.AspNetCore-Angular

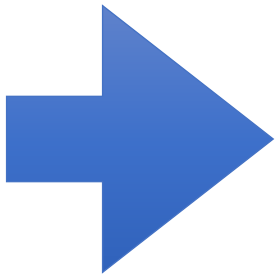
What Is Visual Studio Code?

- Lightweight code editor
- Cross-platform (Mac, Linux, Windows)
- Task runner, integrated terminal
- Intellisense, debugging, version control



Folder-based Project System

- Select File, Open
- Then choose a folder
- Project includes everything in the folder



Ways of Opening VS Code

- From the File Explorer or Finder
  - Windows: Installer option for shell support
  - Mac: http://bit.ly/mac-open-in-vscode
- From Command Prompt or Terminal
  - Enter: code .

Navigation: Windows, Linux

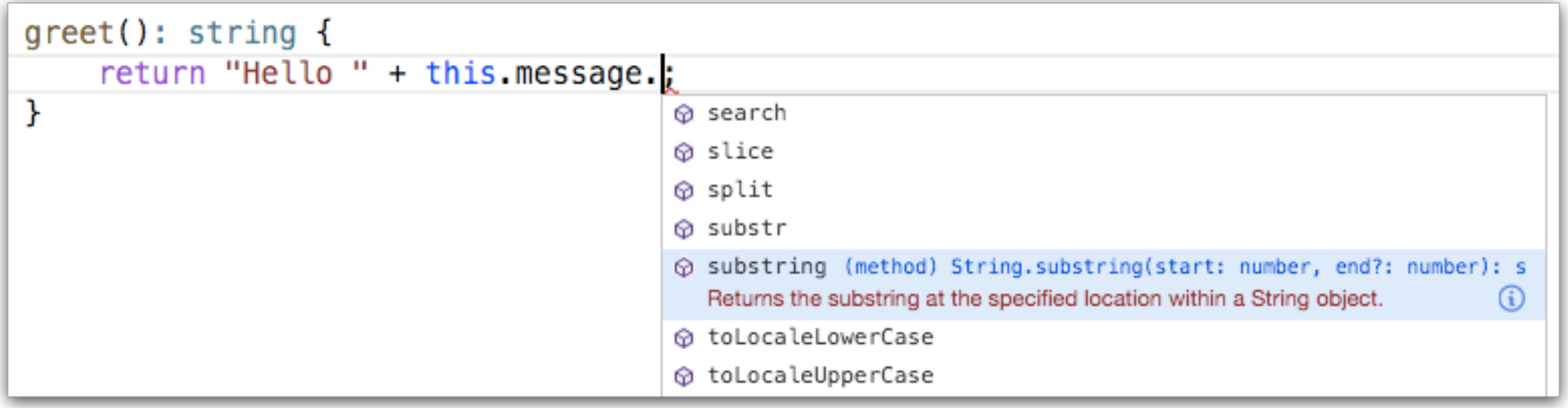
Action	Command: Windows, Linux
Open a file	CTRL +
Cycle recent file	CTRL + TAB (forward) CTRL + SHIFT + TAB (reverse
Go to symbol	CTRL + SHIFT +
Go to line number	CTRL +
Go back Go forward	ALT + ←, CTRL + ALT + - ALT + →,CTRL + SHIFT +
Go to definition Peek definition	F12 ALT + F12, CTRL + SHIFT + F1
Find all reference	SHIFT + F1
Show errors and warning	CTRL + SHIFT +
Cycle errors and warning	F8 (forward), SHIFT + F8 (reverse

Navigation: Mac OS X

Action	Command: Windows, Linux
Open a file	CMD +
Cycle recent file	CTRL + TAB (forward) CTRL + SHIFT + TAB (reverse
Go to symbol	CMD + SHIFT +
Go to line number	CTRL +
Go back Go forward	CTRL + - CTRL + SHIFT +
Go to definition Peek definition	F12 ALT + F1
Find all reference	SHIFT + F1
Show errors and warning	CMD + SHIFT +
Cycle errors and warning	F8 (forward), SHIFT + F8 (reverse

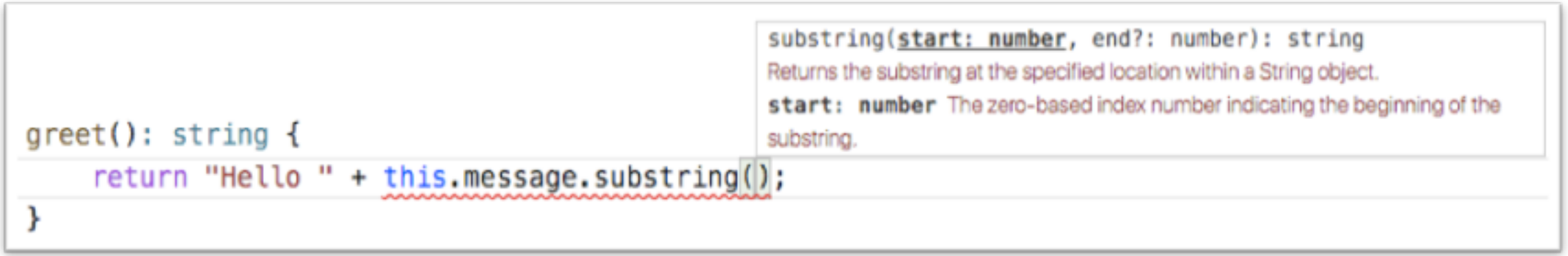
Trigger Intellisense

- CTRL + Space



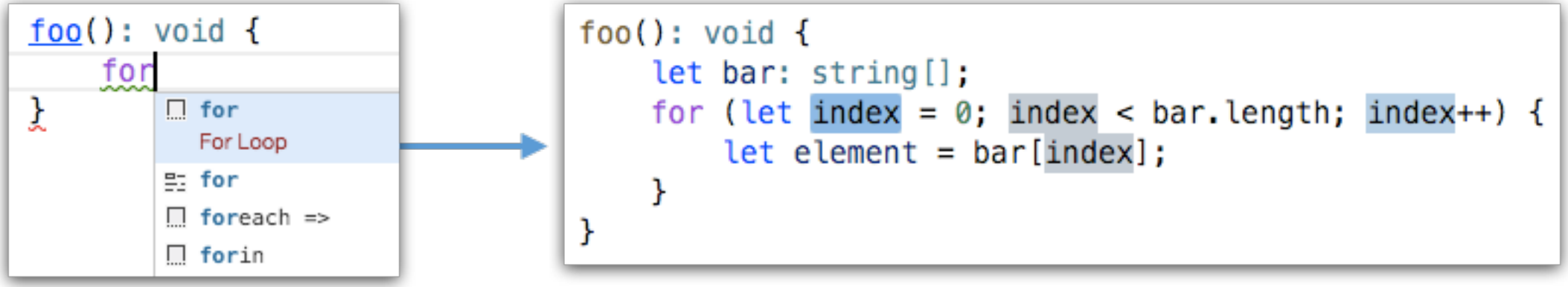
Show Parameter Info

- Mac: CMD + SHIFT + SPACE
- Win/Linux: CTRL + SHIFT + SPACE



Code Snippets

- Type keyword, then press Tab
- Press Tab to cycle through fields



Enabling Intellisense

- Use NPM to install type declarations
- Previous tools obsolete: tsd, typings

```
npm init --yes
npm install lodash --save
npm install @types/lodash --save
```

Add Import Statement

Demo: Using Visual Studio Code

Define TypeScript Project

- Place a tsconfig.json file in a root directory
- To create file execute: tsc --init
- For compiler options press CTRL + Space

Specify Compiler Options

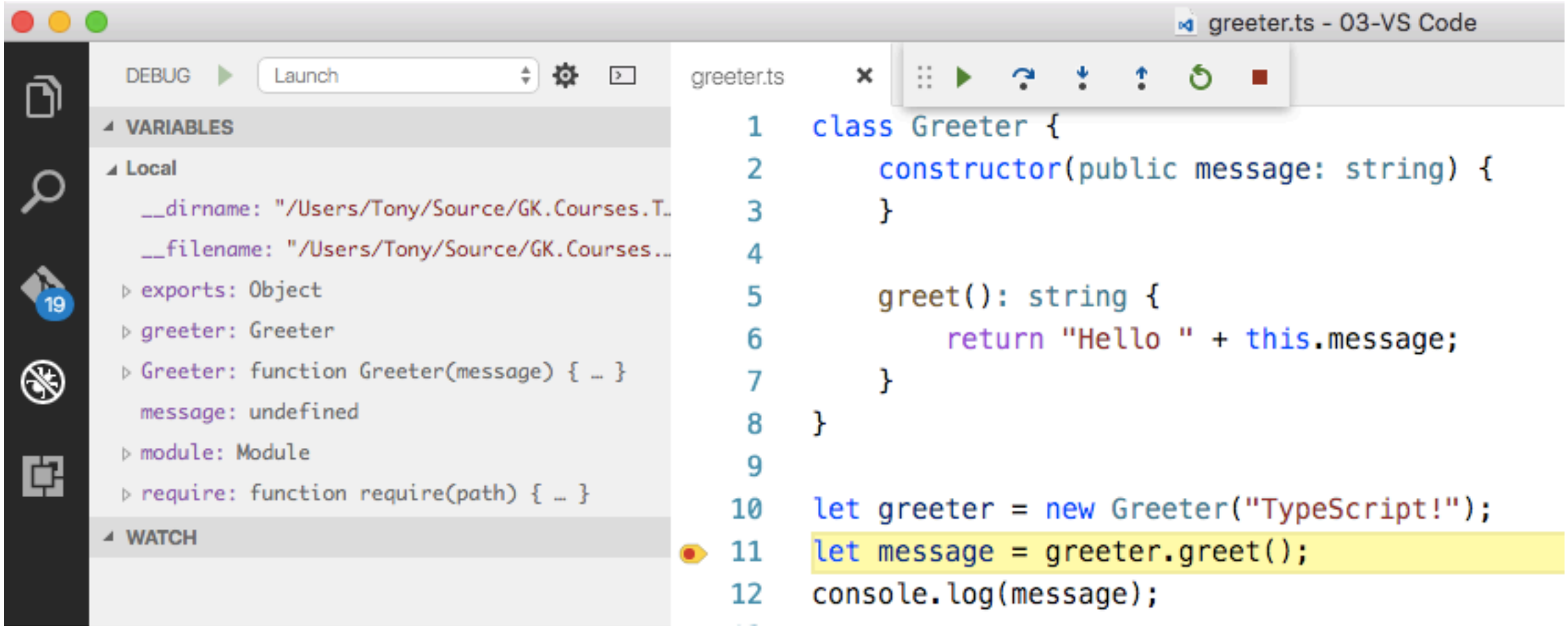
Compiling a TypeScript Project

- Configure Task Runner: add **tasks.json**
- Add **build** task
- Set **rootDir** and **outDir** in tsconfig.json

Enable Debugging

- Compiler options: enable source maps
- Add launch.json file
- Set sourceMaps and outDir

Debug TypeScript in VS Code



Demo: Compiler Options and Debugging

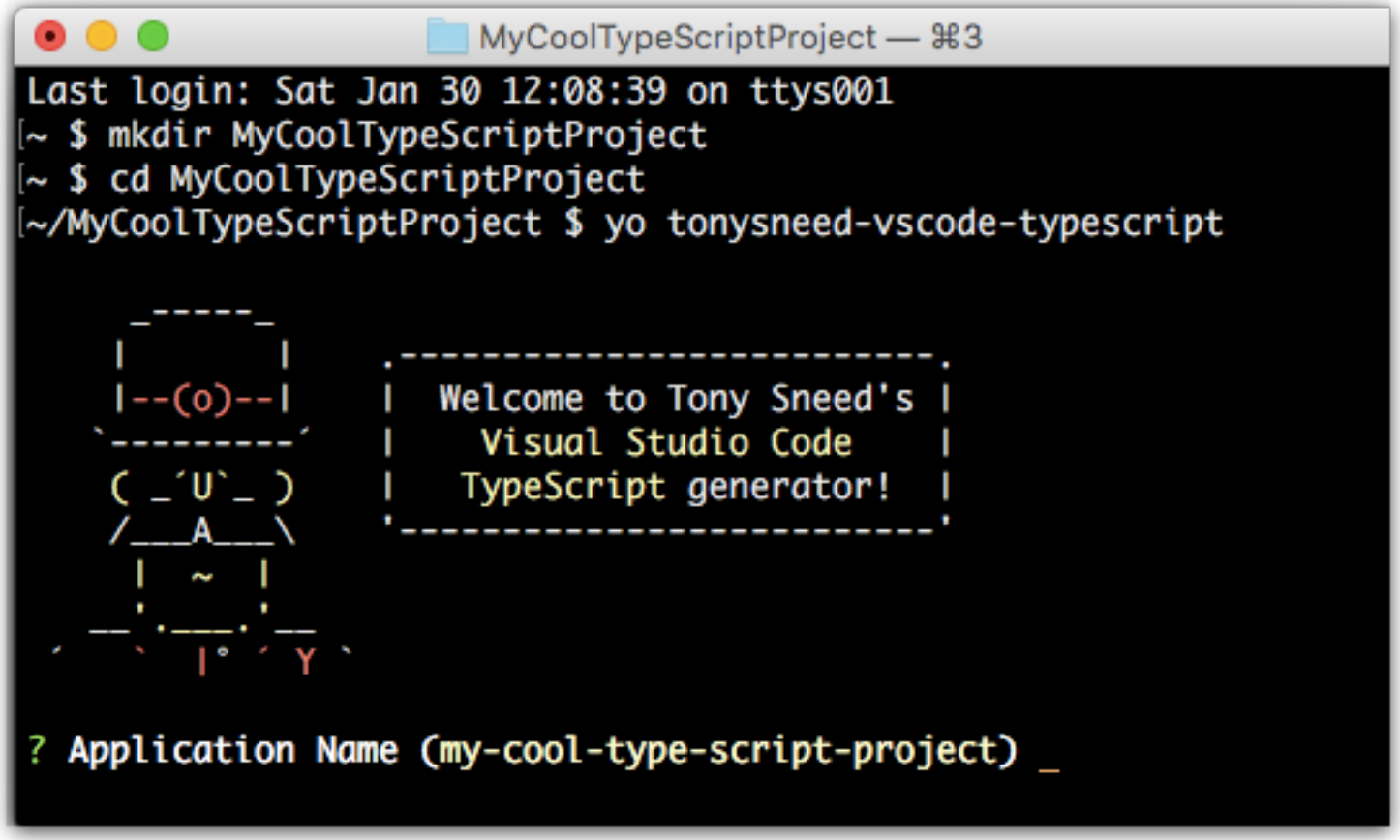
Where Is File New Project?

Use Yeoman to Scaffold New Projects

- Use NPM to install Yeoman
- Find a generator: http://yeoman.io/generators
  - Or create your own

```
npm install -g yo
npm install -g generator-tonysneed-vscode-typescript
cd MyCoolTypeScriptProject
yo tonysneed-vscode-typescript
```

Sample TypeScript Yeoman Generator



Demo: Scaffolding with Yeoman

Questions?