SharePoint

Modern SharePoint Workshop - prework

- Introduction to the tooling
- Set up your development environment
- Set up your tenant

Microsoft

Agenda

→ Introduction to the tooling

→ Setting up your computer

→ Getting your developer tenant ready

→ Helloworld webpart

SharePoint

SharePoint Framework

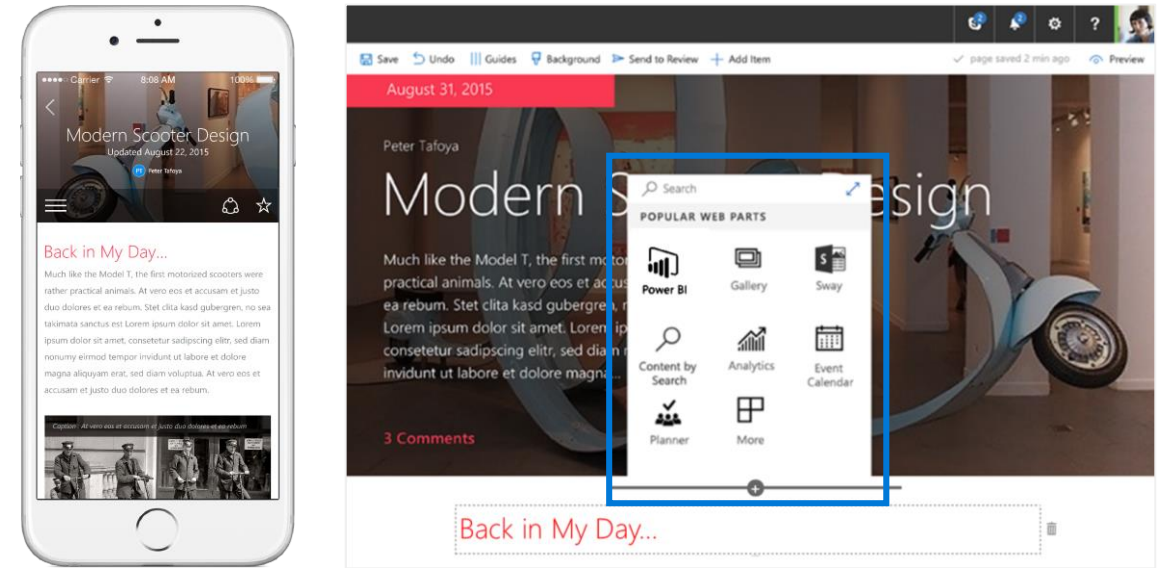New client-side page and web part model

Lightweight - web, mobile, responsive

Powers our own experiences

Backward compatible

Supports open source tools
and JavaScript web frameworks

SPFx web parts work on both classic and
client-side pages

SharePoint framework

| Microsoft Graph | LOB Systems and Cloud Services |

SharePoint

Comparing the Models

	Add-in Models	SP Framework
Mobile-ready	○	●
Direct access to page (e.g. Connected Web Parts)	○	●
Ease of Data Access	◔	●
Ease of Upgrade (of your solution)	◔	●
Protection from Untrusted Code	●	○
Storefront Distribution	●	○

(these are the two models that work on Modern SharePoint)

SharePoint

Open source tooling

Build Process & Tooling

Yeoman Templates
Gulp-based Build Process
NodeJS/NPM
SystemJS
Webpack
SASS
TypeScript
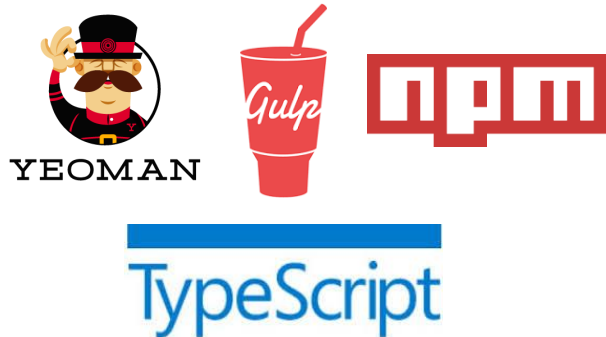
JavaScript Frameworks

React

Angular

Knockout

and more ... your choice!

Code Editors

Visual Studio Code

Atom

Sublime

and more ... your choice!

SharePoint

Server side tool comparison

IIS Express

Microsoft .NET

NuGet

MSBuild

C#

Visual Studio Project Templates

node.js

npm

Gulp

TypeScript

YEOMAN

SharePoint
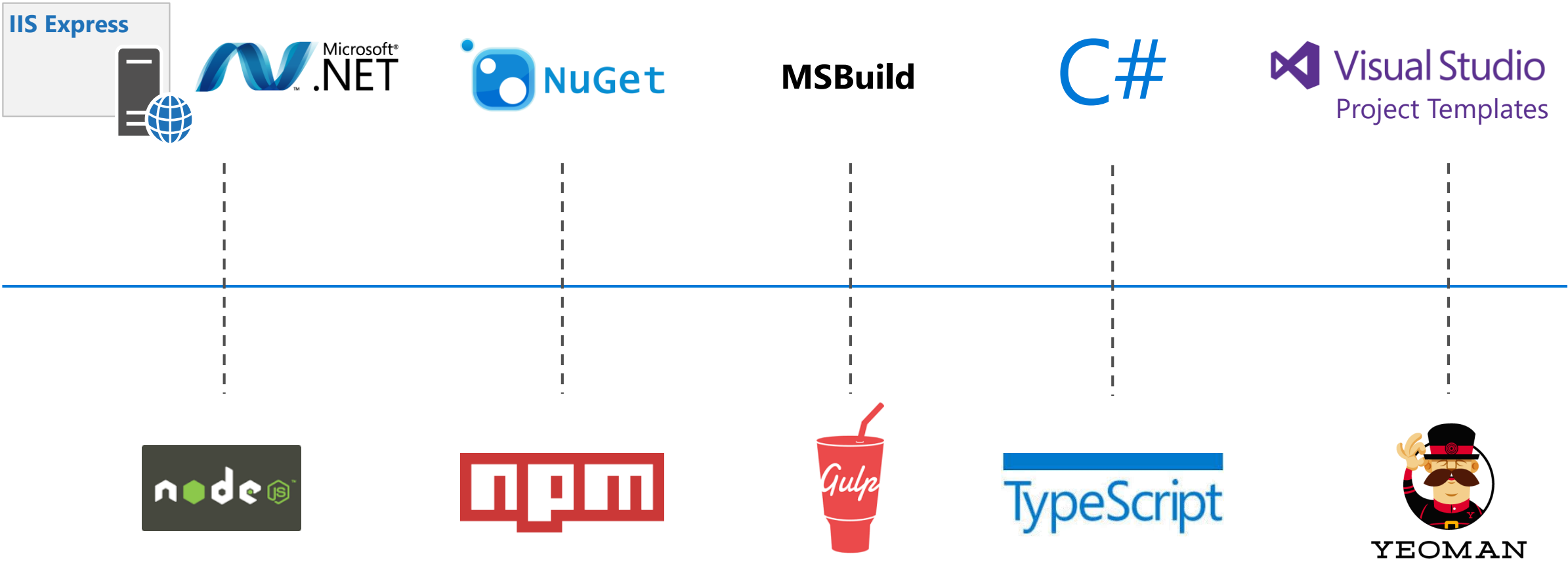
npm – Node Package Manager

```
> npm install typescript --save-dev
```

- npm is a package manager for JavaScript
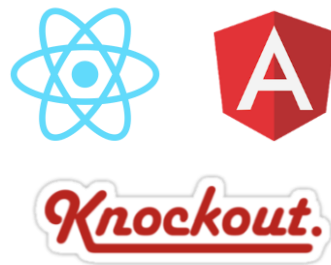 - Similar ways as NuGet is for .NET framework managed code
- Used with Node.js for local JavaScript development
- Downloads 3rd party libraries used in your customizations
  - You can also share your own packages in npm for the benefit of others

Yeoman - Templates

```
> yo @Microsoft/sharepoint
```

http://yeoman.io

- Scaffolding tool for development projects
- Used to create SharePoint Framework templates on your development machine
- Installed on your machine with npm

gulp – Your task and build manager

> `gulp serve`

http://gulpjs.com/

- Provides automation for your build tasks
  - Platform-agnostic, simple solution, with strong ecosystem
- Task manager similar in ways as MS Build is in Visual Studio projects

SharePoint

TypeScript – Typed JavaScript

> tsc

- TypeScript is typed superset of JavaScript, which compiles to plain JavaScript

- Development language for the base templates in SharePoint Framework

- You can also integrate native JavaScript to SharePoint Framework customizations *

  * No need to rewrite everything

SharePoint

Setting up your computer

Setting Up Your Computer Steps

Install developer tools – Node.js & developer editor

Install Yeoman and gulp

Install Yeoman SharePoint generator

Install developer tools – NodeJS and npm

- Install [NodeJS](#) Long Term Support (LTS) version.
- If you are using a Mac, it is recommended you use [homebrew](#) to install and manage NodeJS.
- make sure you are running the latest npm

```
npm install -g npm
```

- **Linux**

```
sudo npm install -g npm
```

Install developer tools – Code Editors

- [Visual Studio Code](#)
- [Sublime](#)
- [Atom](#)
- [Webstorm](#)

You can freely choose which JavaScript development IDE you want to use.

Install Yeoman and gulp

- [Yeoman](#) provides you project templates to start with your development

- [Gulp](#) works as the task manager in your SharePoint Framework solution

- SharePoint client-side development tools include a Yeoman generator for creating new SharePoint Framework solutions

```
npm install -g yo gulp
```

Install Yeoman SharePoint generator

- The Yeoman SharePoint Framework solution generator helps you quickly create a SharePoint client-side solution project with the right toolchain and project structure.

```
npm install -g @microsoft/generator-sharepoint
```

DEMO

Installing needed tools and libraries to your development environment

SharePoint

Summary

- Overview
- Introduction to the tooling
- Setting up your computer
- Helloworld webpart

Office Hours

Microsoft