

SPEAKER



Creating Libraries

Building our own Angular library and publishing it to npm

NISHU GOEL

IBM
SOFTWARE DEVELOPER

INDIA



@DcoustaWilson



@nishugoel





Nishu Goel

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ng-Srilanka: Good to know before attending my talk

Hey everyone!

Creating Libraries in Angular



Nishu Goel

Developer, UI Garage, IBM



Blog: <https://nishugoel.wordpress.com/>
Twitter: @Dcoustawilson

AGENDA

- Overview of Libraries
- Behind the scenes
- Creating a library and using it locally
- Importing your library in some Angular application
- Publishing your library to npm

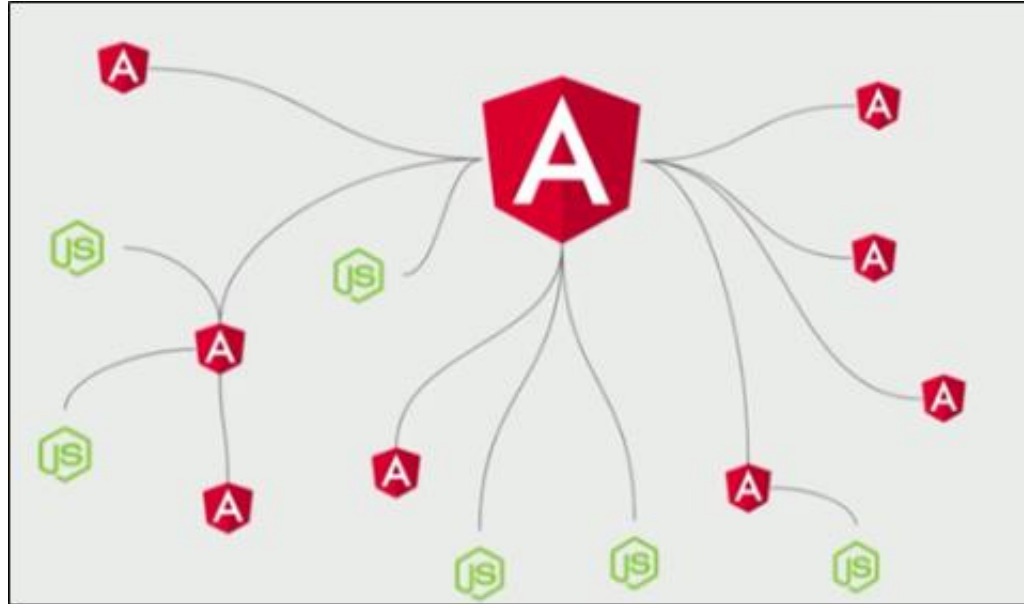


Libraries?

In programming,
a collection of precompiled routines that a program can use.

- contains components, modules, services etc.
- Shareable code
- Reusable functionality
- Separate code for one feature

In his talk, [Create and publish Angular libs like a Pro](#), [Juri Strumpflohner](#) explains the need for a library with this image.

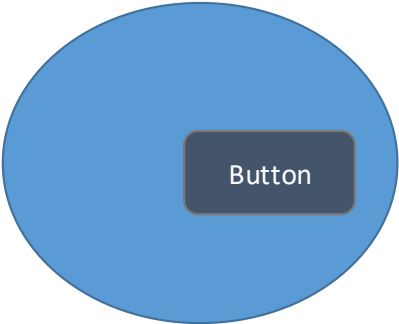
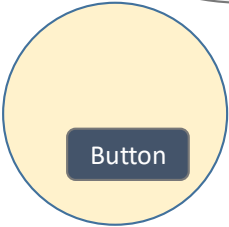
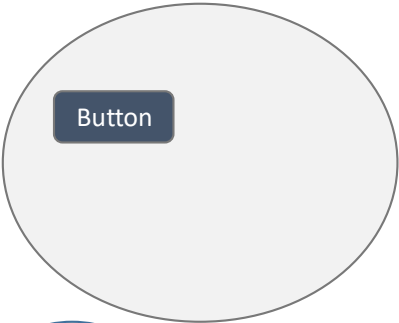


Explains how our applications comprise of different javascript files and other external libraries and tools and how they are assembled together.

“Smallest set of
logically connected code”

Applications need:

Library contains:



A library should be:

- Platform independent
- Bundled and distributed
- AOT Compilation ready
- Built in Typescript



Angular package format

a recommended way to distribute angular packages

- **Module definitions**
- **Typing files**
- **Entry point**
- **AOT ready metadata file**

Link: <https://docs.google.com/document/d/1CZC2rcpxffTDfRDs6p1cfbmKNLA6x5O-NtkJglDaBVs/preview>

So,

Steps to produce an **Angular library**:

- Inlining all the templates
- Compiling it with 'ngc'
- Build formats:
 - ESM2015 (ES6)
 - ESM5 (combination of ES5 and imports, export from ES6)
 - UMD formats (combination of AMD and Common JS)

Creating all these is definitely a task!

ng-packagr!



ng-packagr

created by **David Herges**, allows libraries to be built and packaged using a single command

- Creates libraries in the Angular package format
- Creates all the bundles (ESM2015, ESM5, UMD)
- Creates type definitions (.d.ts)
- Creates Ahead-of-Time metadata file
- **Also, inlines all the styles and templates!**

Library files

public_api.ts
*.ts
package.json

ng-packagr

Angular package format

*.d.ts
package.json
Bundles



Let's create a library!

`ng generate library <library-name>`

Using the library inside our Angular app

Import and use in a separate application locally


- `npm install` — `npm install <path>`
- `npm link` — `npm link <path>`
- `npm pack` — `npm pack`

Publishing

- Login to npm
- Give a version and name (read about versioning here: <https://semver.org>)
- Publish with access flag 'public'

Account

nishugoel

Organizations 

None

nishugoel

 Packages

 Profile

 Tokens

 Billing

3 packages

@nishugoel/super-lib

This library was generated with [Angular CLI](https://github.com/angular/angular-cli) version 7.2.0.

nishugoel published 0.0.2 • 11 days ago

@nishugoel/demo-lib

This library was generated with [Angular CLI](https://github.com/angular/angular-cli) version 7.2.0.

nishugoel published 0.0.3 • 5 days ago

@nishugoel/my-lib

This library was generated with [Angular CLI](https://github.com/angular/angular-cli) version 8.2.0.

nishugoel published 0.0.2 • 19 hours ago



<https://github.com/NishuGoel/ngSLDemo>

Some great resources to follow!

- angular.io/guide/using-libraries
- The Angular Library series: Angular In Depth
- Structuring Angular Applications with Angular libraries – **Fabian Gosebrink**
- ng-be 2017 talk Create and publish Angular libs like a Pro - **Juri Strumpflohner**

THANK YOU



@Dcoustawilson



NishuGoel

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