

Angular 2

Lesson 1—What is Angular?



Introduction

“

“Angular is what HTML would have been had it been designed for applications.”

Miško Hevery
- Creator of AngularJS

”



Introduction

“

143,891 websites have used Angular.

builtwith.com



”

Angular is powered by

Google



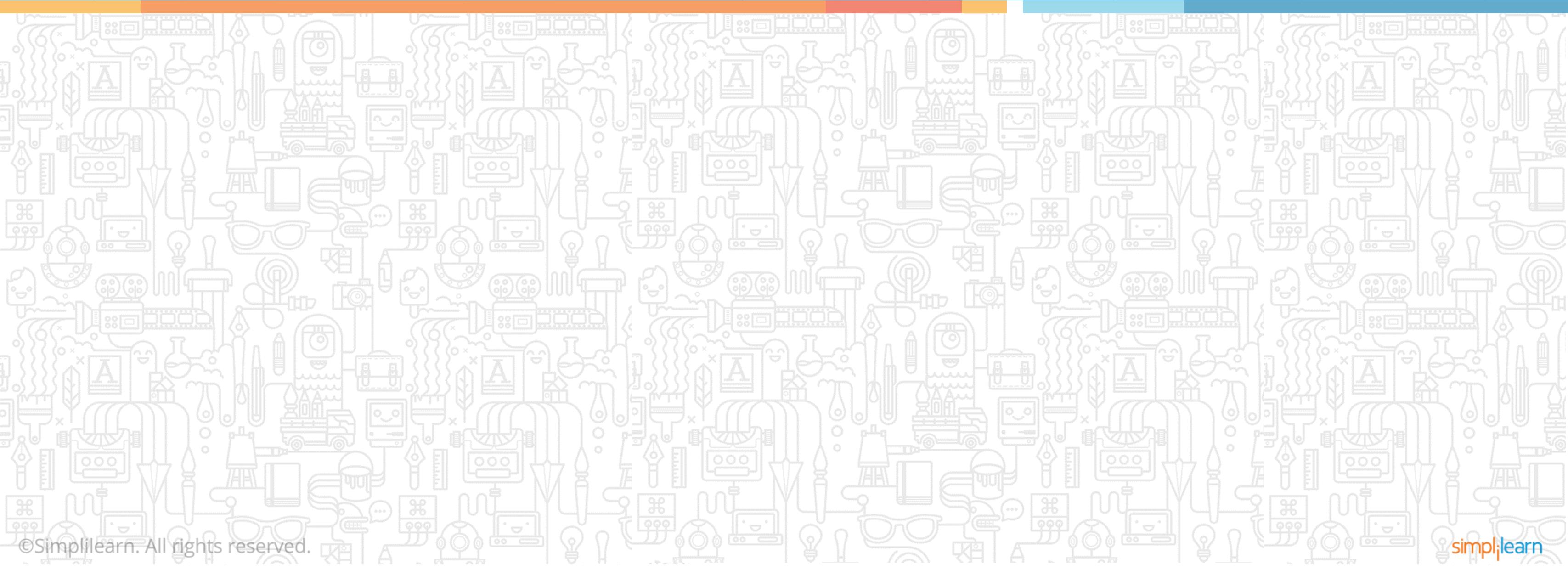
Learning Objectives



- ✔ What is Angular?
- ✔ Advantages of Angular
- ✔ Features of Angular

What is Angular?

Topic 1—What is Angular?



What Is Angular?

Angular is a structural framework for dynamic web applications.



Angular provides developers an option to write client side application (using JavaScript) in a clean Model View Controller (MVC) way.

Angular—History

Angular was created in the year 2009 as AngularJS.



It is a **large** and **fast-growing** community.



It is **Open Source** and supported by **Google**.

Angular—History (Contd.)

The first stable version

- Patch releases
- Bug fixes
- Small features

Angular 1.3



Angular 1.5



Angular 1.4

Performance Boost

- 30% faster digest times vs. 1.3
- New router
- Internationalization
- ng-animate, ng-messages, ng-cookies

Angular 1.6

- Sandbox support has been removed
- Uses new router
- Uses ES6 modules
- Uses ES6 in general (this will make migration easy)

Angular 2.0



Angular 4

- Smaller and Faster
- Animation Package
- Angular Universal
- TypeScript 2.1 and 2.2 compatibility
- New ParamMap interface

* We will discuss more in the last lesson of this course.

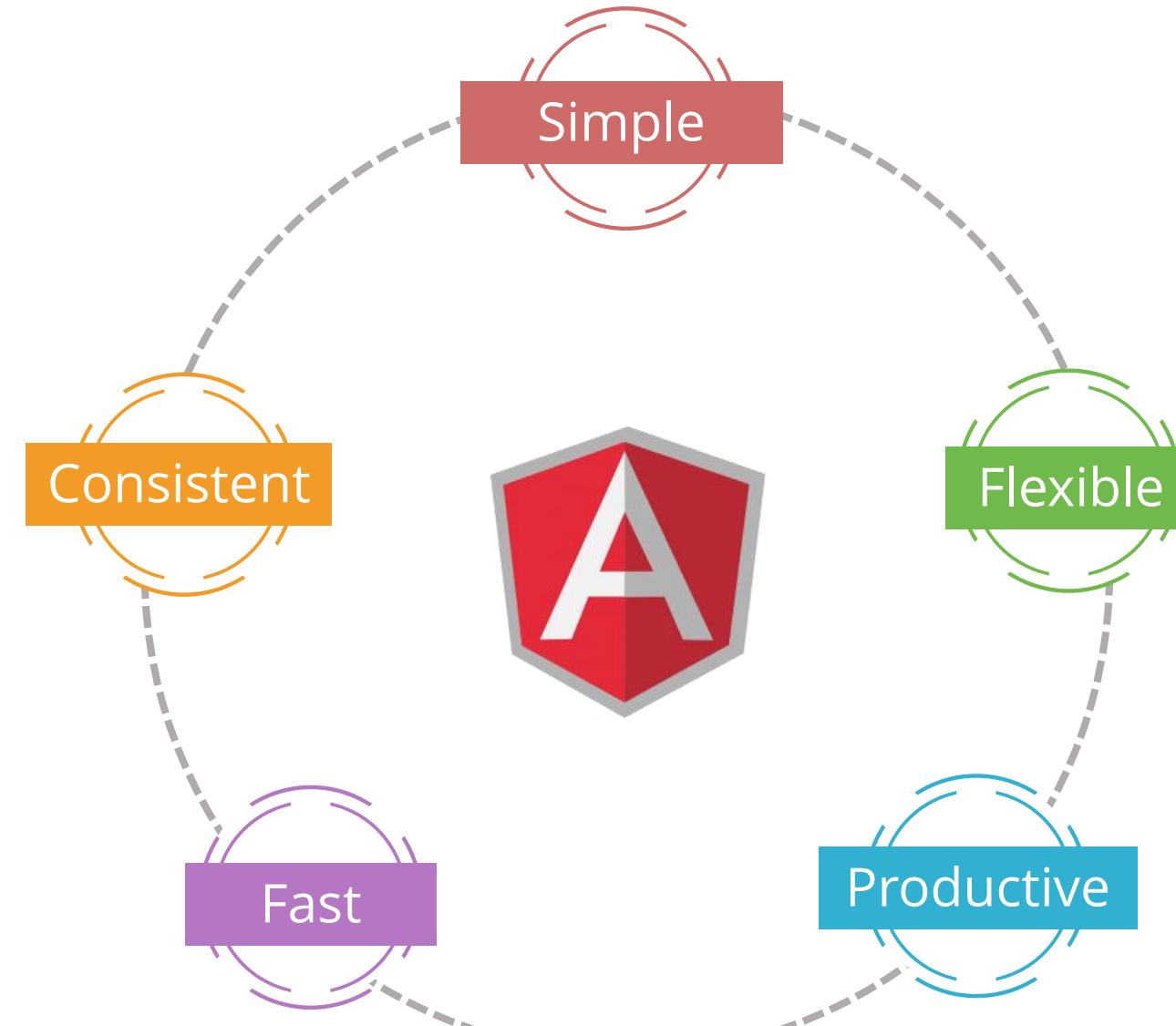
Getting Started With Angular 2

In Angular, JavaScript is replaced by TypeScript (TS).

Here is what you need for Angular:

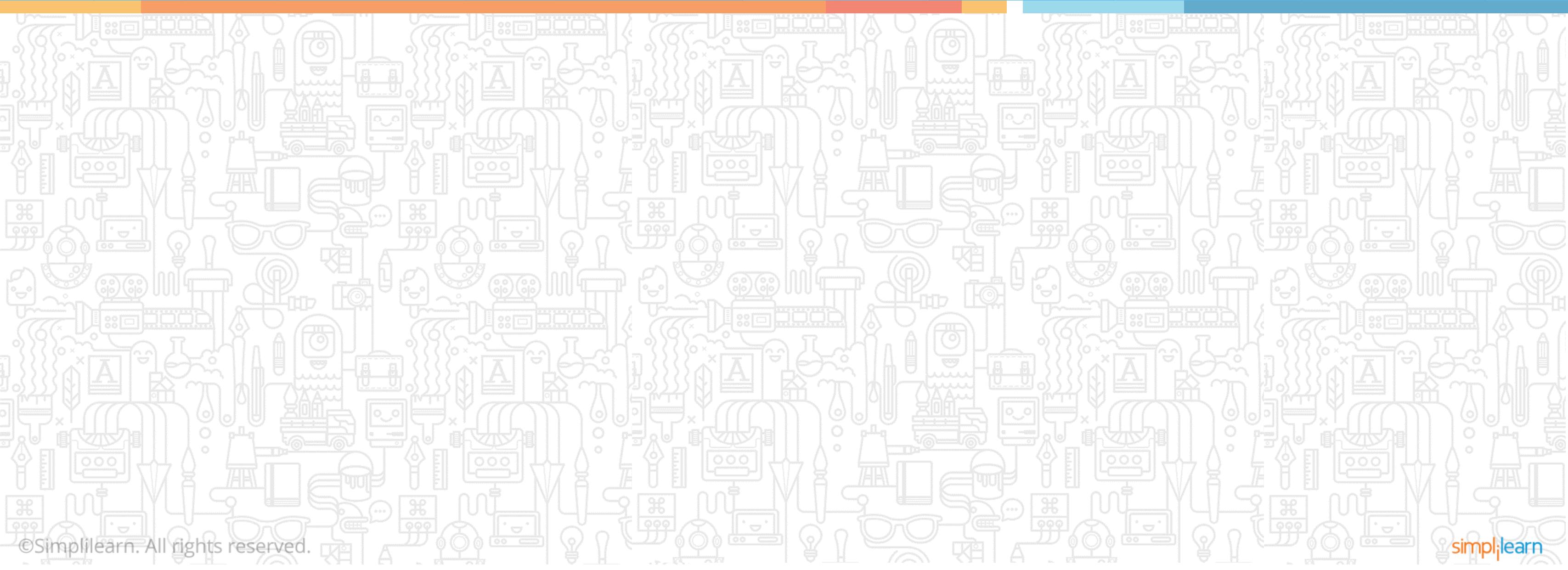
- New Router
- Internationalization
- Material Design
- Migration plan to Angular 2 (If you are in Angular 1.x)

Advantages Of Angular 2 Over Angular 1



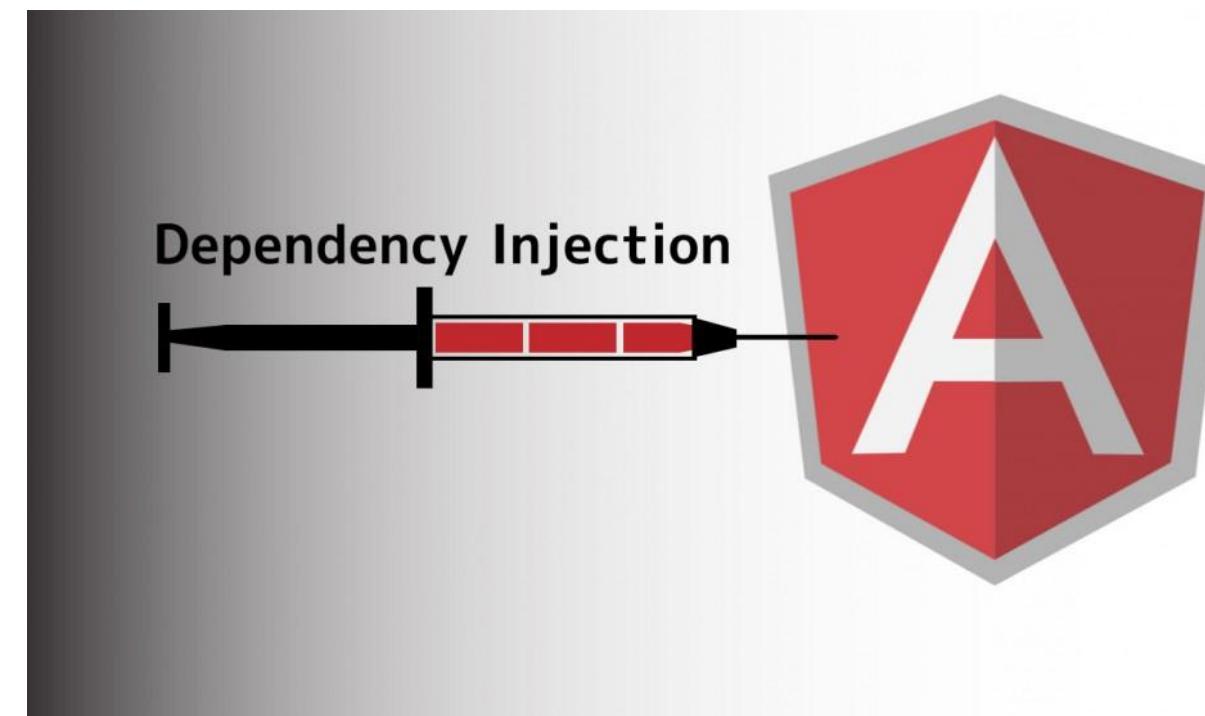
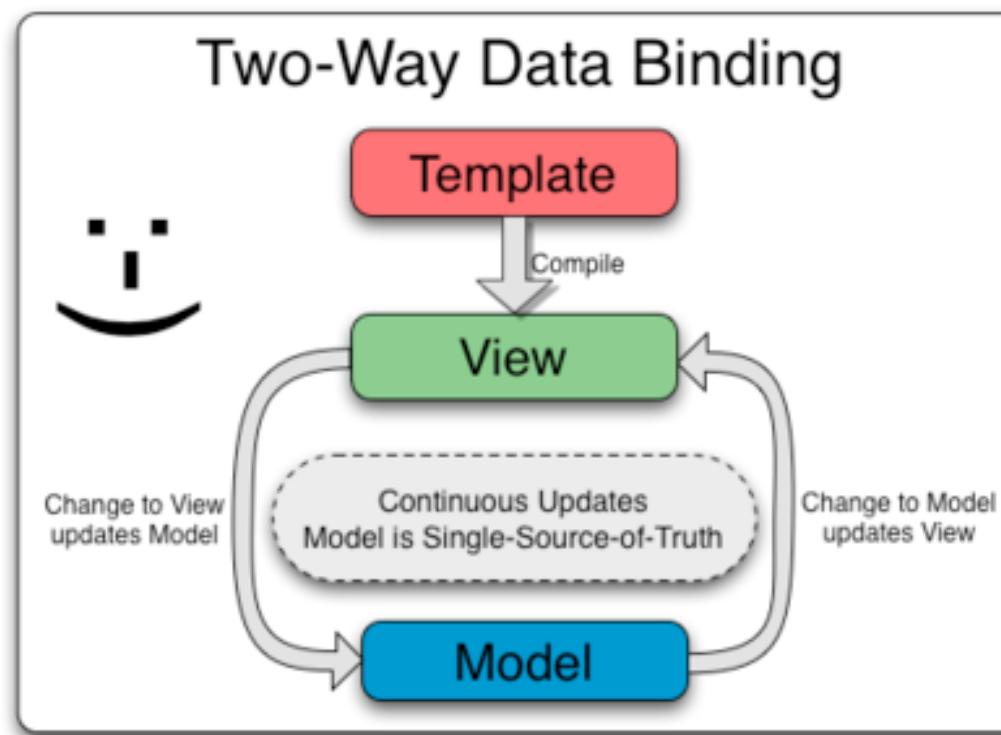
What is Angular?

Topic 2—Advantages of Angular



Angular Over Other Frameworks

Angular possesses the following features when compared to other frameworks.

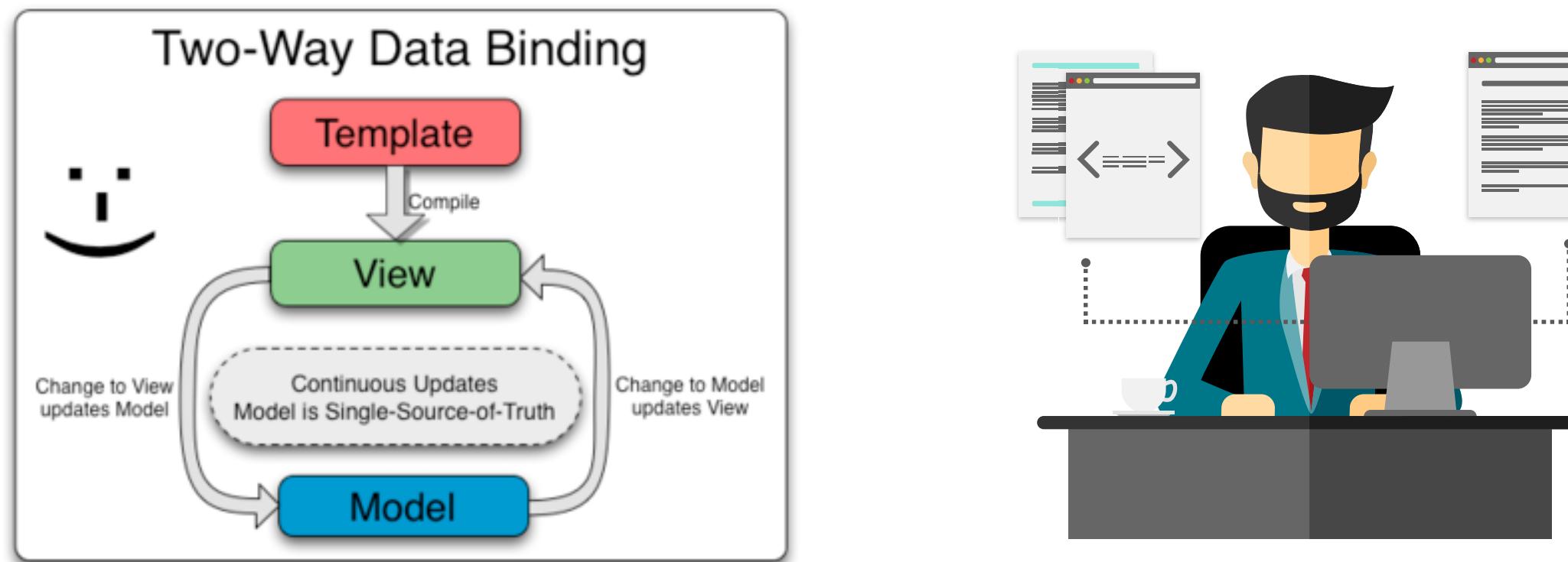


Angular Over Other Frameworks (Contd.)

Two-way Data Binding:

Data binding in Angular is the synchronization between the model and the view.

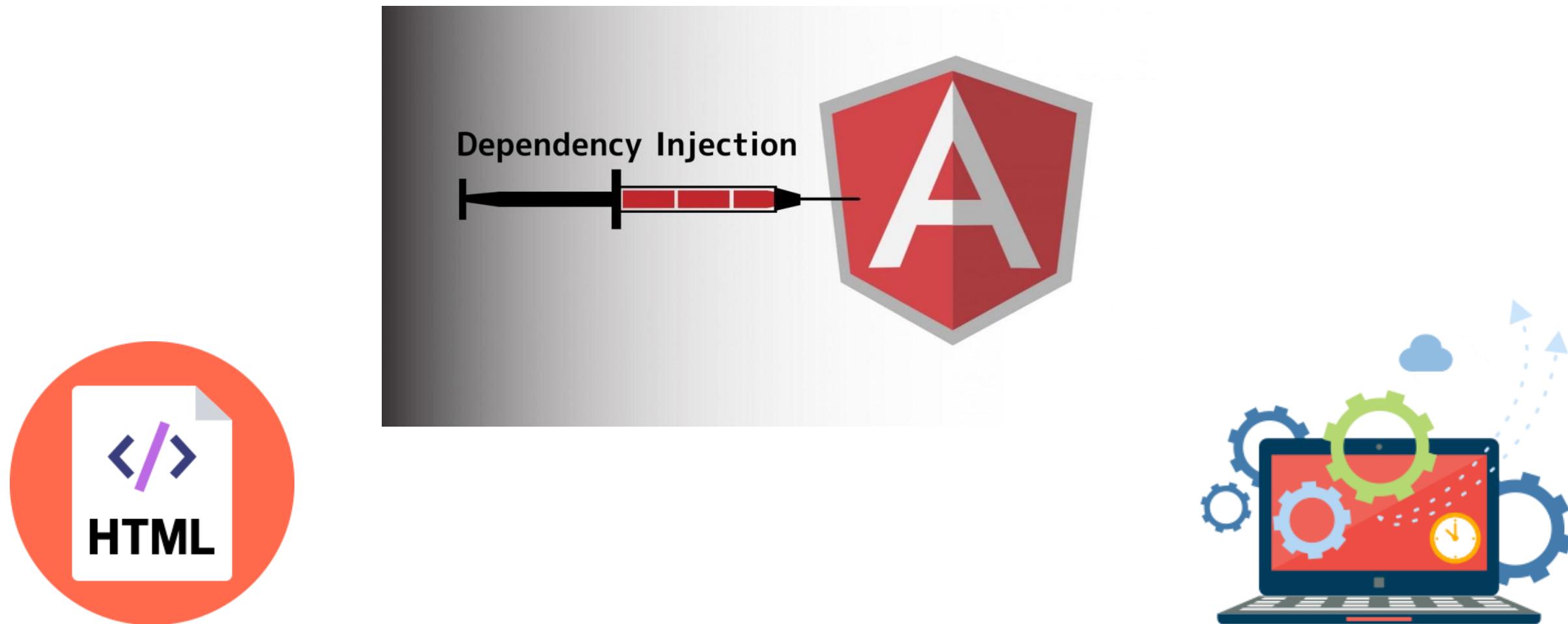
When data in the model changes, the view reflects the change, and when data in the view changes, the model is updated as well.



In two-way data binding, data flows in both the directions, and you have to write less code.

Angular Over Other Frameworks (Contd.)

Dependency Injection (DI) is a design pattern that passes an object as a dependency to different components across the application. DI helps in keeping the code modularized.



It enables HTML template
programming within the browser

Modularized code makes unit
testing easier

Angular Over Other Frameworks (Contd.)

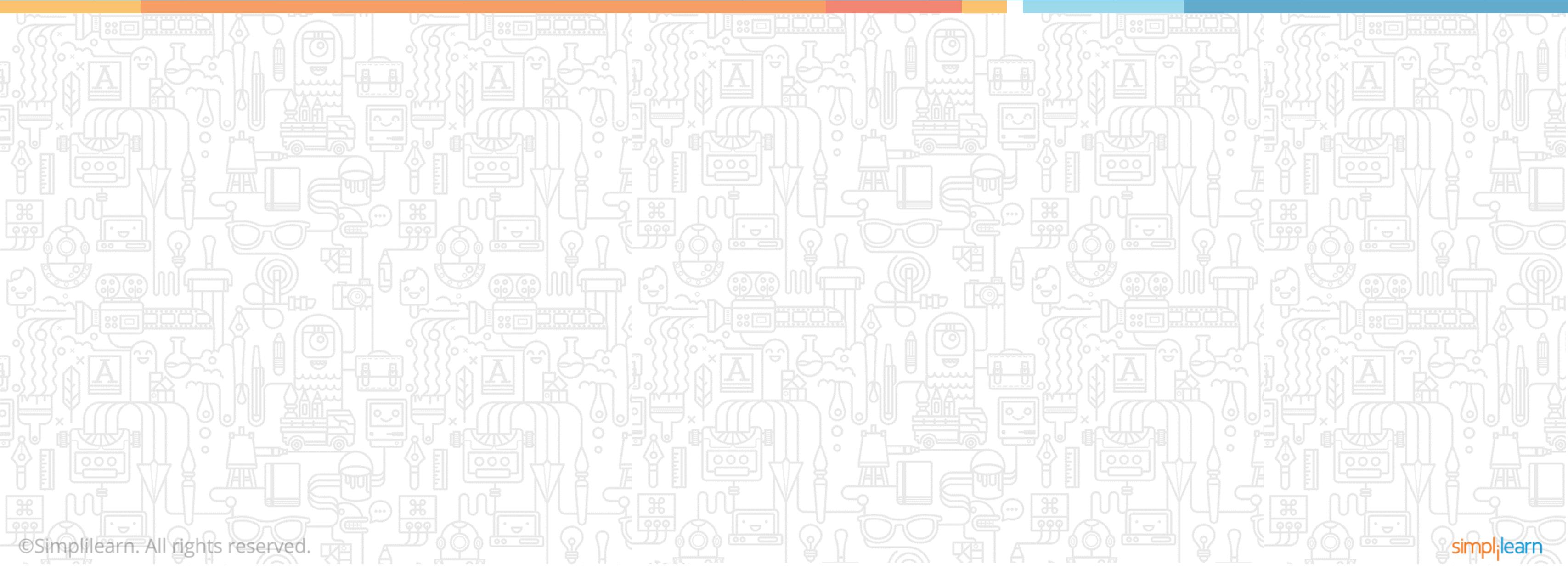
Directives are extended HTML attributes with the prefix ng- .

It enables developers to extend **HTML syntax** to clearly express the application's components.



What is Angular?

Topic 3—Features of Angular



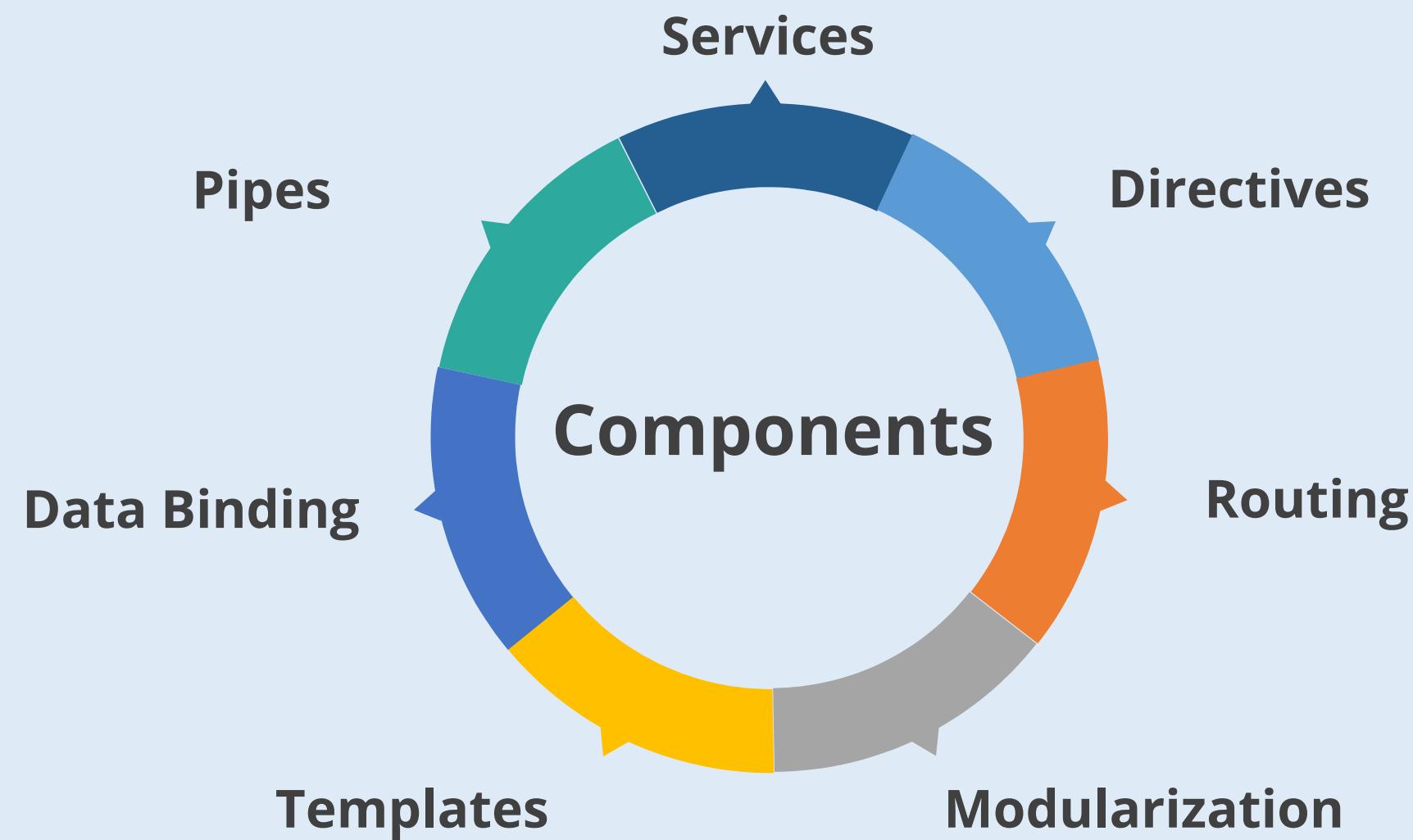
Features of Angular

Components

Single Page Application

Community

Angular 2 has ready-made components which include:



Features of Angular (Contd.)

Components

Single Page Application

Community



Web applications are composed of a **single page**



Views (HTML Fragments) are dynamically loaded into the page



Better user experience (**no reloads!**)



Calls to the server are done asynchronously behind the scenes



Decoupling of front-end and back-end development

Features of Angular (Contd.)

Components

Single Page Application

Community

Stars on GitHub

27.2 K

Third Party Modules

780 NgModules

Stack Overflow Questions

50K

GitHub Contributors

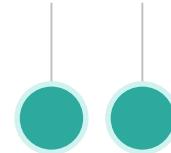
900

Chrome Extension Users

More than 150 K

Additional Features of Angular

Develops Single Page Application using JavaScript Framework



Keeps the client side app separate from the server side app

Supports all major desktop and mobile browsers



Develops testing friendly code

Well-organized and highly modular



Creates much lighter web application

Key Takeaways



- ✔ Angular is a Single Page Application (SPA) JavaScript Framework
- ✔ Angular is open source JavaScript Framework
- ✔ SPA is a web application composed of a single page



QUIZ
1

Which of the following is correct for Angular?

- a. It is a Single Page Application
- b. Implements client-side MVW pattern
- c. Focused on Testing
- d. All of the above



QUIZ
1

Which of the following is correct for Angular?

- a. It is a Single Page Application
- b. Implements client-side MVW pattern
- c. Focused on Testing
- d. All of the above



The correct answer is **d**.

Angular is an SPA, implements client-side MVW pattern, and is focused on testing.

**QUIZ
2**

Angular is an open source JavaScript framework to build web applications in HTML and JavaScript and has been conceived as a _____.

- a. mobile first approach
- b. UI first approach
- c. web first approach
- d. All of the above



**QUIZ
2**

Angular is an open source JavaScript framework to build web applications in HTML and JavaScript and has been conceived as a _____.

- a. mobile first approach
- b. UI first approach
- c. web first approach
- d. All of the above



The correct answer is **a.**

Angular is an open source JavaScript framework to build web applications in HTML and JavaScript and has been conceived as a mobile first approach.



Thank You