



# Session 1

## Starting Out with AngularJS and Angular



# Session Objectives

- ✓ Describe what AngularJS is
- ✓ Explain why we choose AngularJS
- ✓ Analyze MVC architecture concepts
- ✓ Describe where AngularJS is used

# AngularJS

1-3

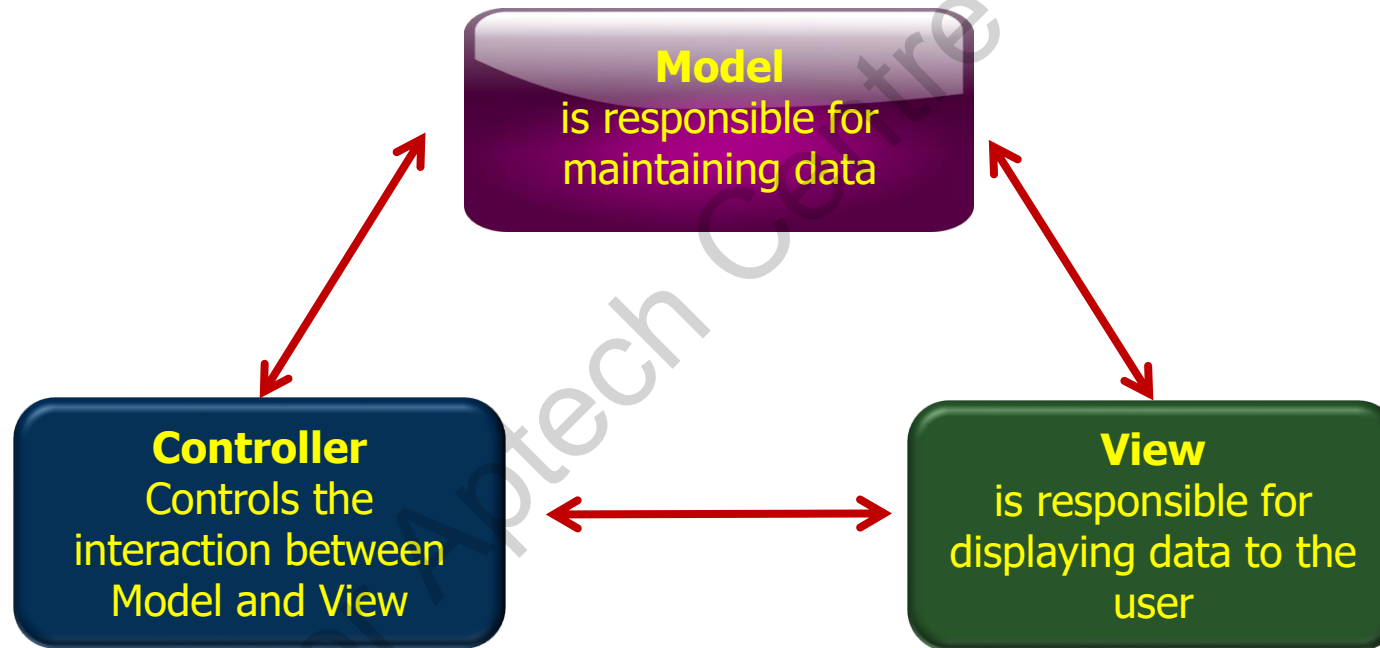
- ✓ A JavaScript framework used to build browser based Web applications
- ✓ Helps build single-page Web applications to load varying content dynamically based on user actions
- ✓ It is written in JavaScript with a reduced jQuery library called jQuery lite



# AngularJS

2-3

- ✓ Extends HTML to give it Model-View-Controller (MVC) capabilities.



*MVC Software Architecture Pattern*

# AngularJS

3-3

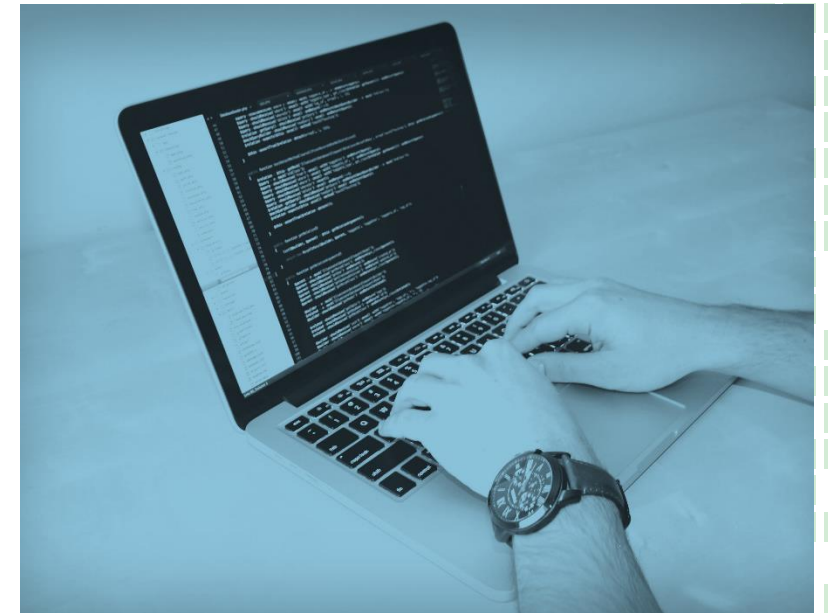
## Why use AngularJS?

Makes it easy to correctly implement MVC

Model components of AngularJS are basic JavaScript objects

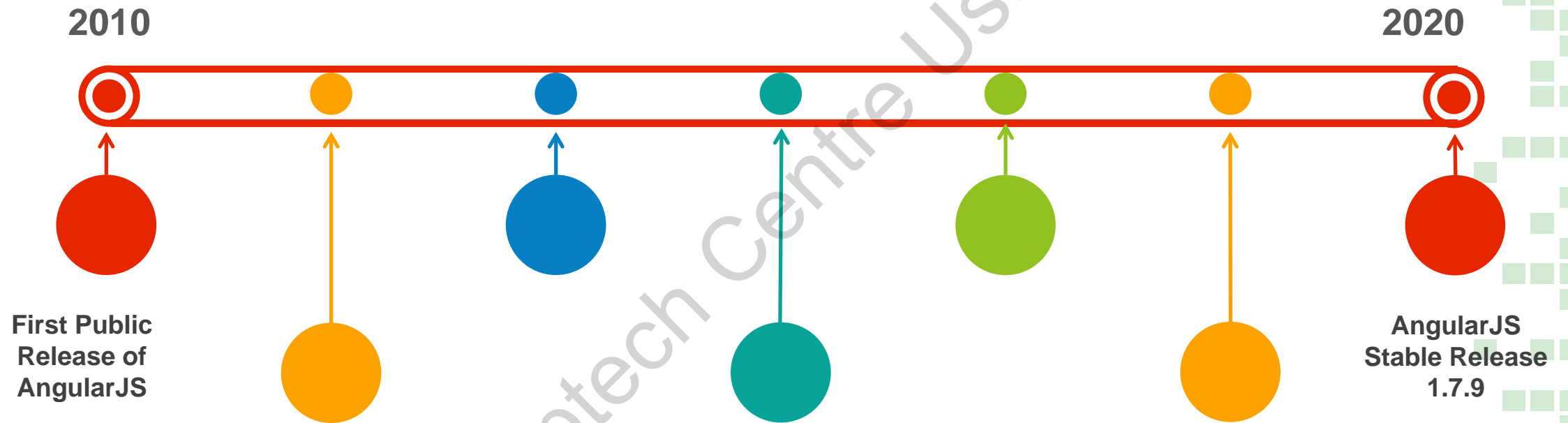
Allows us to have our custom defined tags in HTML

Provides simple and flexible filters that help us to easily format data



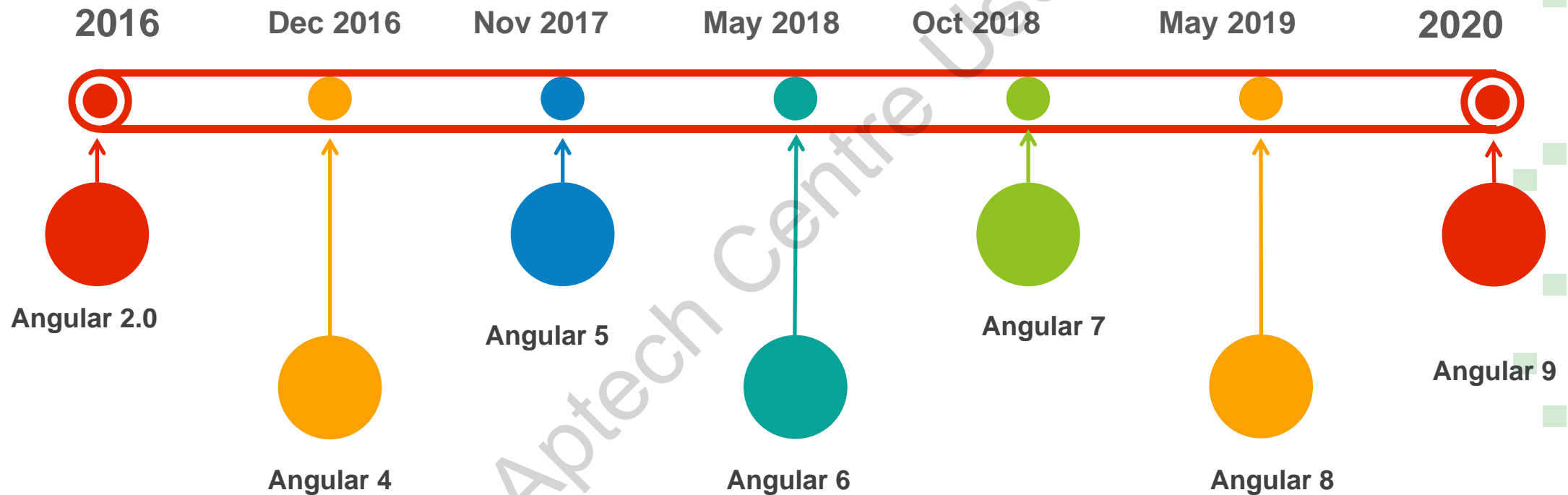
# Brief Version History

1-2



# Brief Version History

2-2



# AngularJS Versus Angular

## AngularJS

Released in year 2010. Last stable release of AngularJS is 1.7.9.

Has MVC based architecture.

Is not mobile-friendly.

Need not know TypeScript to write AngularJS code, sufficient to learn HTML5 and JavaScript.

Focuses on controllers.

Constants, values, providers, services, and factory are used for services.

Can be run on AngularJS on the client side only.

## Angular

Released in September 2016. Last stable release of Angular is 9.

Angular 2 onwards, architecture is based on services and other elements.

Is a mobile-friendly framework.

Should be familiar with TypeScript, ES6, and ES5 to write code in Angular 2.

Is based on components.

You can only use a class to define Angular 2 (and higher) services.

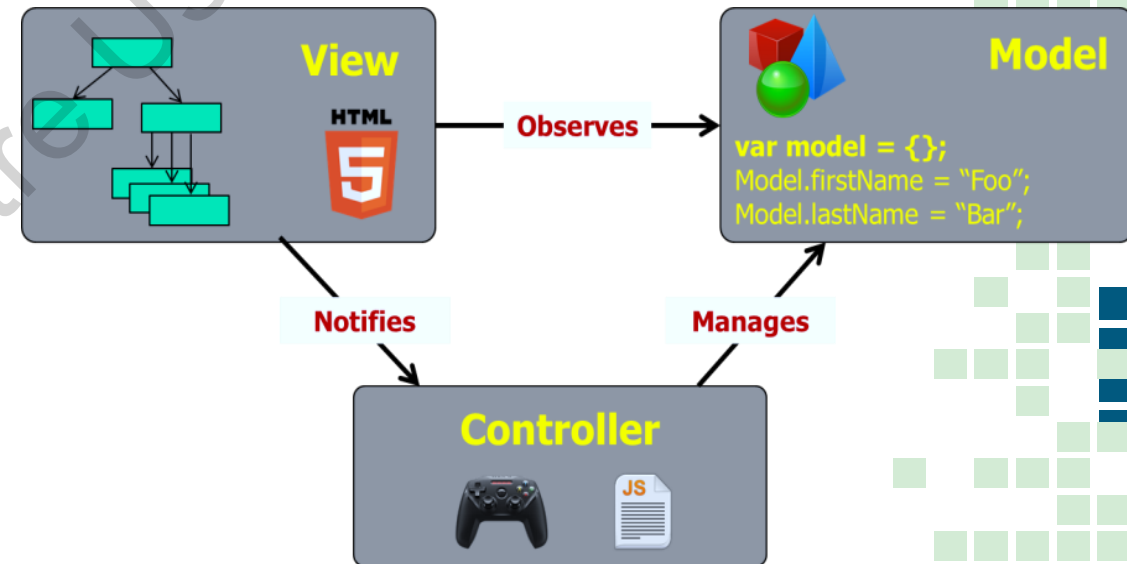
You can run Angular 2 (and higher) on server and client side.



# MVC Concepts

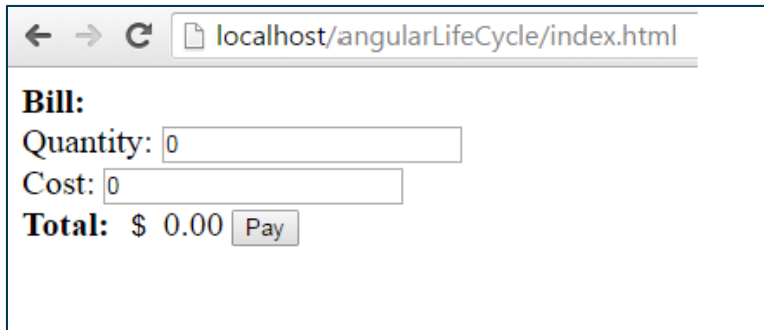
## MVC Architecture Benefits in AngularJS

- ✓ Offers a huge reduction in effort required for overall app development cycle.
- ✓ Through MVC, we apply the principle of 'Separation of Concerns'.
- ✓ MVC helps in testing phase too.
- ✓ MVC is a tried and tested way to build robust applications



# Angular App Lifecycle

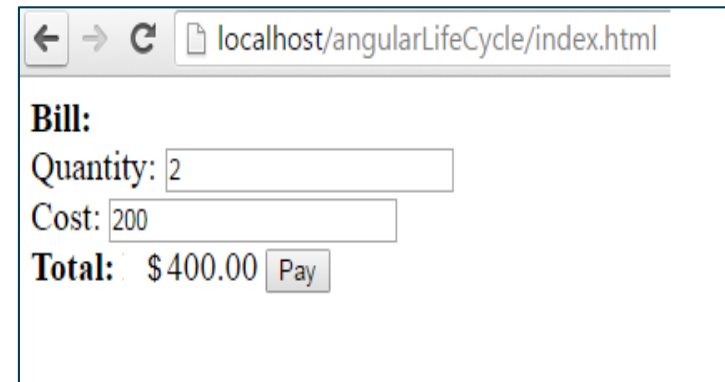
- Working of a Simple AngularJS Application



A screenshot of a web browser window showing the initial state of an AngularJS application. The address bar displays 'localhost/angularLifeCycle/index.html'. The form contains the following elements:

- Bill:** A label for the form.
- Quantity:** An input field with the value '0'.
- Cost:** An input field with the value '0'.
- Total:** A label followed by '\$ 0.00' and a 'Pay' button.

*Initial View of the AngularJS Application*

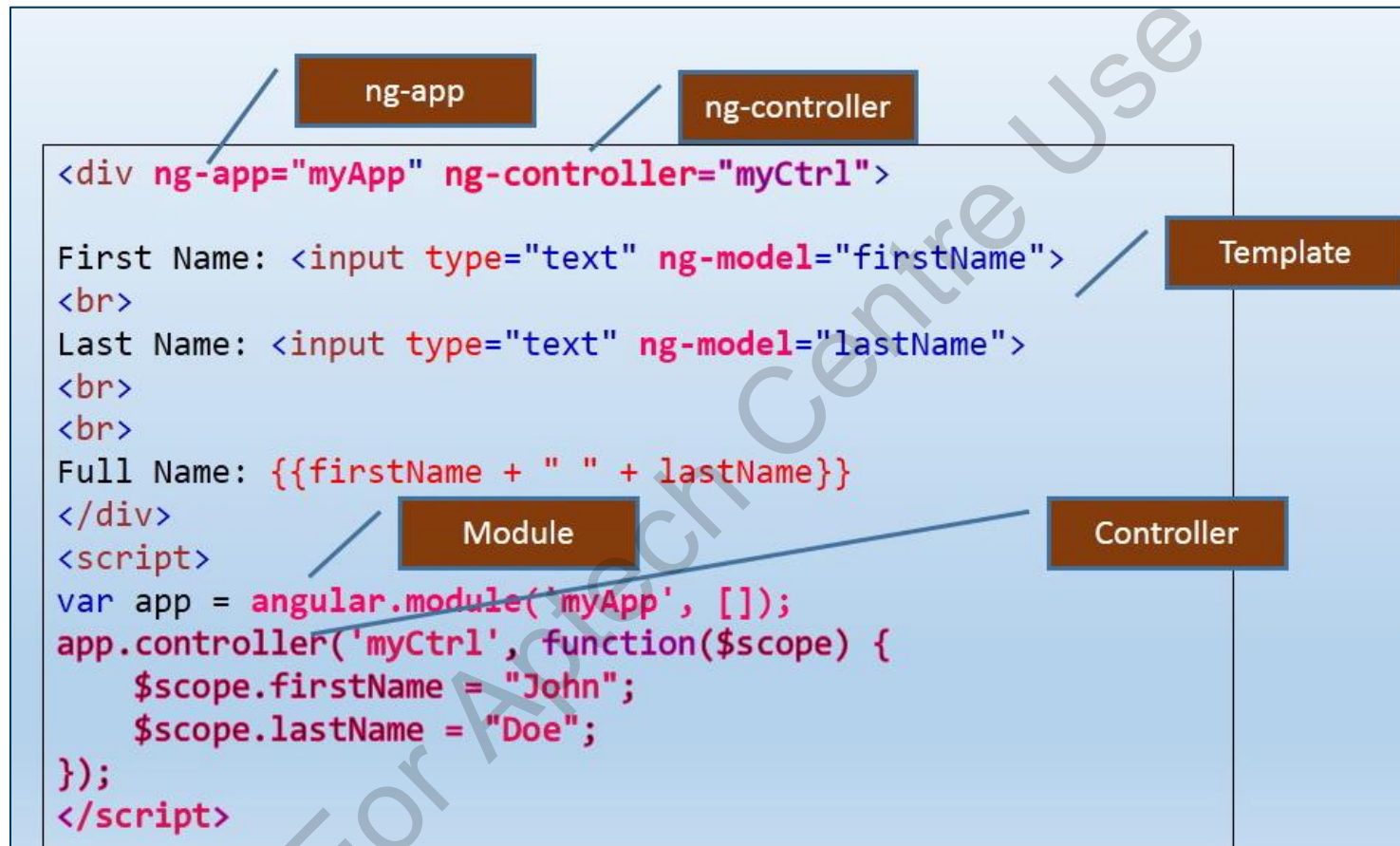


A screenshot of the same web browser window after user interaction. The form now shows calculated values:

- Quantity:** An input field with the value '2'.
- Cost:** An input field with the value '200'.
- Total:** A label followed by '\$ 400.00' and a 'Pay' button.

*View of the Angular Application after new Inputs and Calculation*

# Various Sections of AngularJS Application

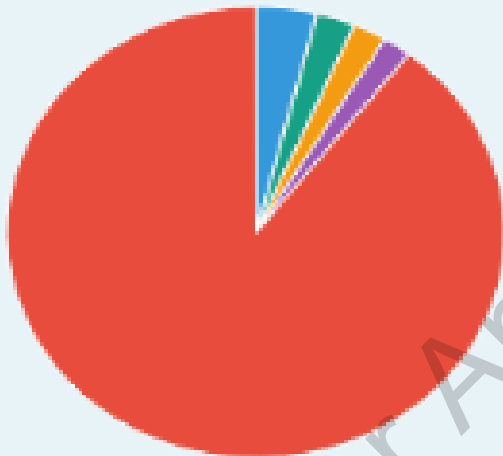


# Where is AngularJS Used?

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## Top Industry Verticals

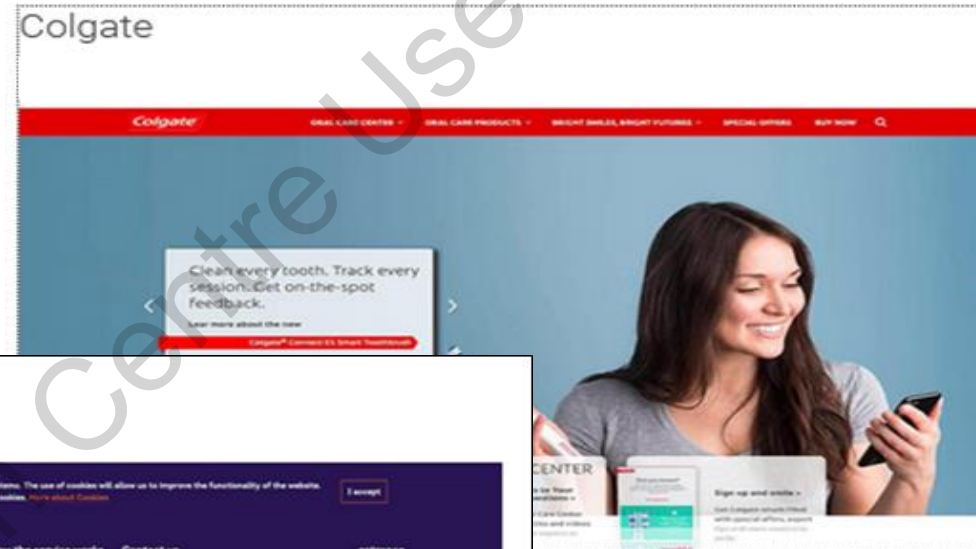
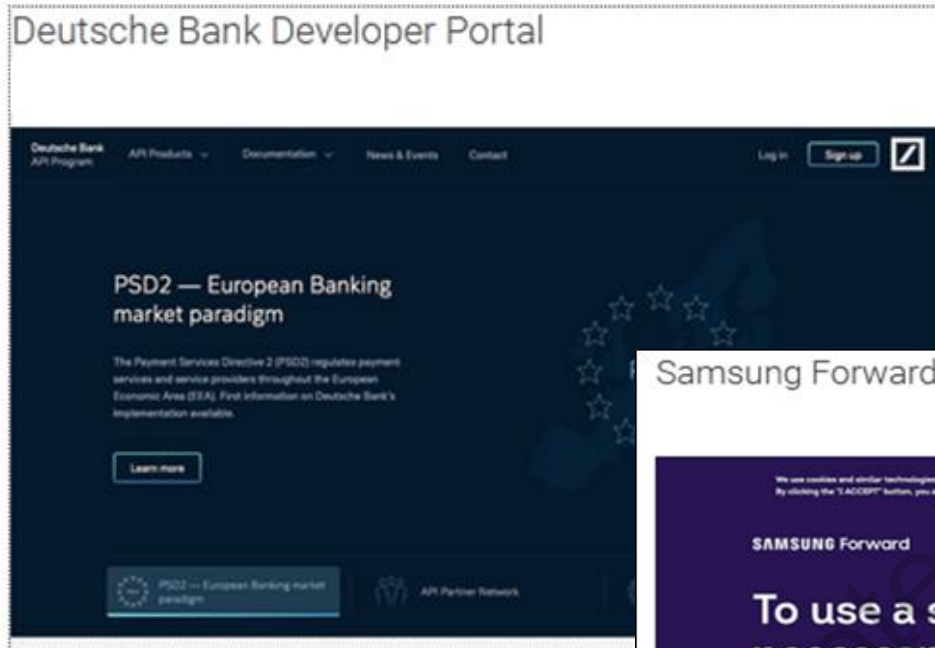
Industry verticals where Angular JS is being used



Industry Vertical	Popularity
Computers Electronics & T...	3.94%
Arts & Entertainment	2.52%
News & Media	2.18%
Finance	1.88%
Others	89.47%

# Where is AngularJS Used?

2-2



# Popular Editor Tools

- Sublime Text
- Notepad
- Notepad++
- Visual Studio Code





# Summary

- AngularJS is a JavaScript framework that enables to build Web applications and dynamic Websites.
- MVC is a software design pattern that is based on the principles of Separation of Concerns.
- Angular is the term used to refer to any version beyond 2.
- Latest version of AngularJS is 1.7.9 and that of Angular is 9.
- Important components of an AngularJS application are directives, expressions, and filters.
- AngularJS and Angular have attained widespread acceptance and many popular Websites and Web applications are based on them.