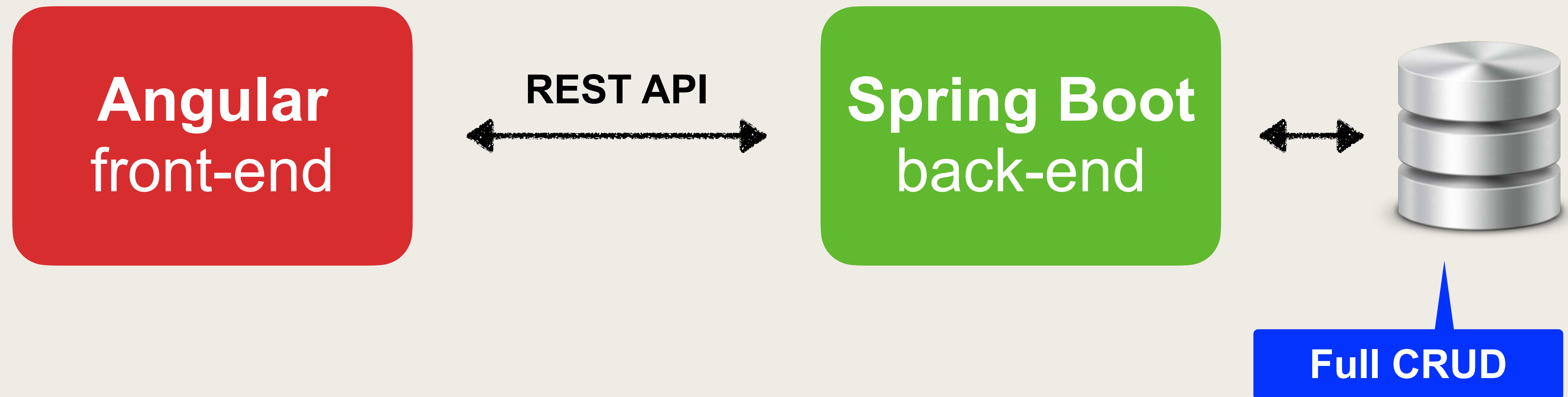


Angular and Spring Boot



Course Objective

- Build a Full-Stack application with Angular and Spring Boot



Prerequisites

- You should have prior experience with
 - Java
 - Spring Boot
 - Maven
- **NO** prior experience needed for Angular
 - We will teach you Angular from the beginning :-)
 - Not an A-Z coverage of Angular ... but enough to build Full-Stack apps

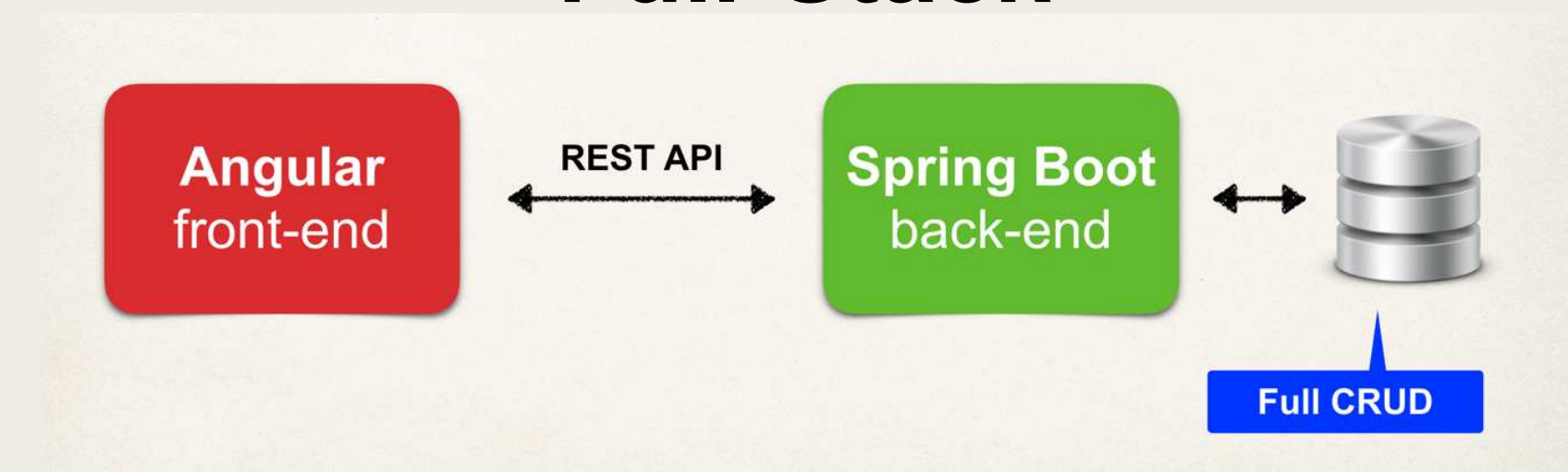
Spring & Hibernate for Beginners

Course Road Map

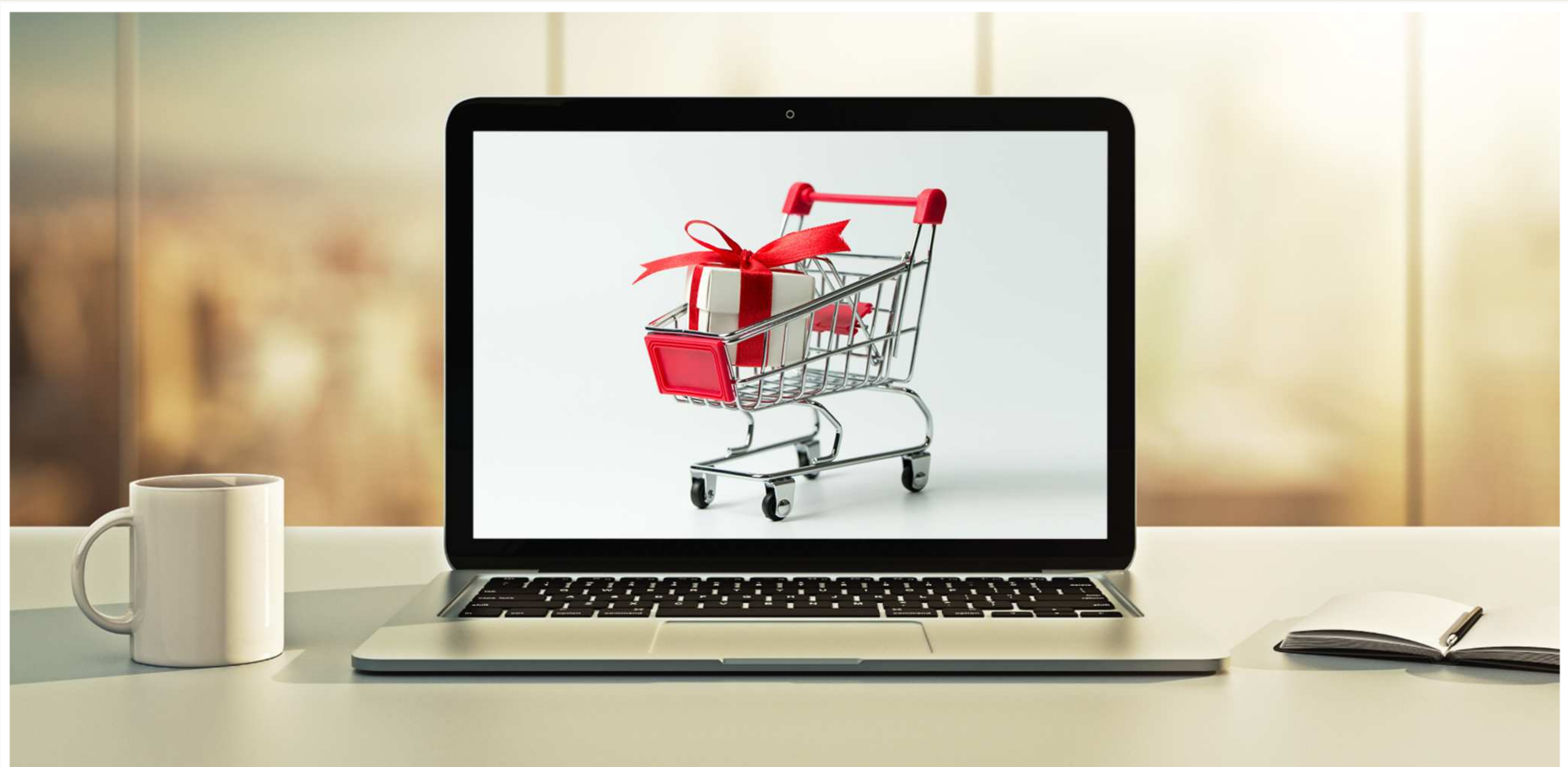
- Angular Overview
- Set up Development Environment
- TypeScript Crash Course
- Angular Crash Course
- Build Real-time eCommerce App
 - Create Angular front-end
 - Develop Spring Boot back-end



Full-Stack



Angular Overview



What is Angular?

- Angular is a framework for building modern single-page applications



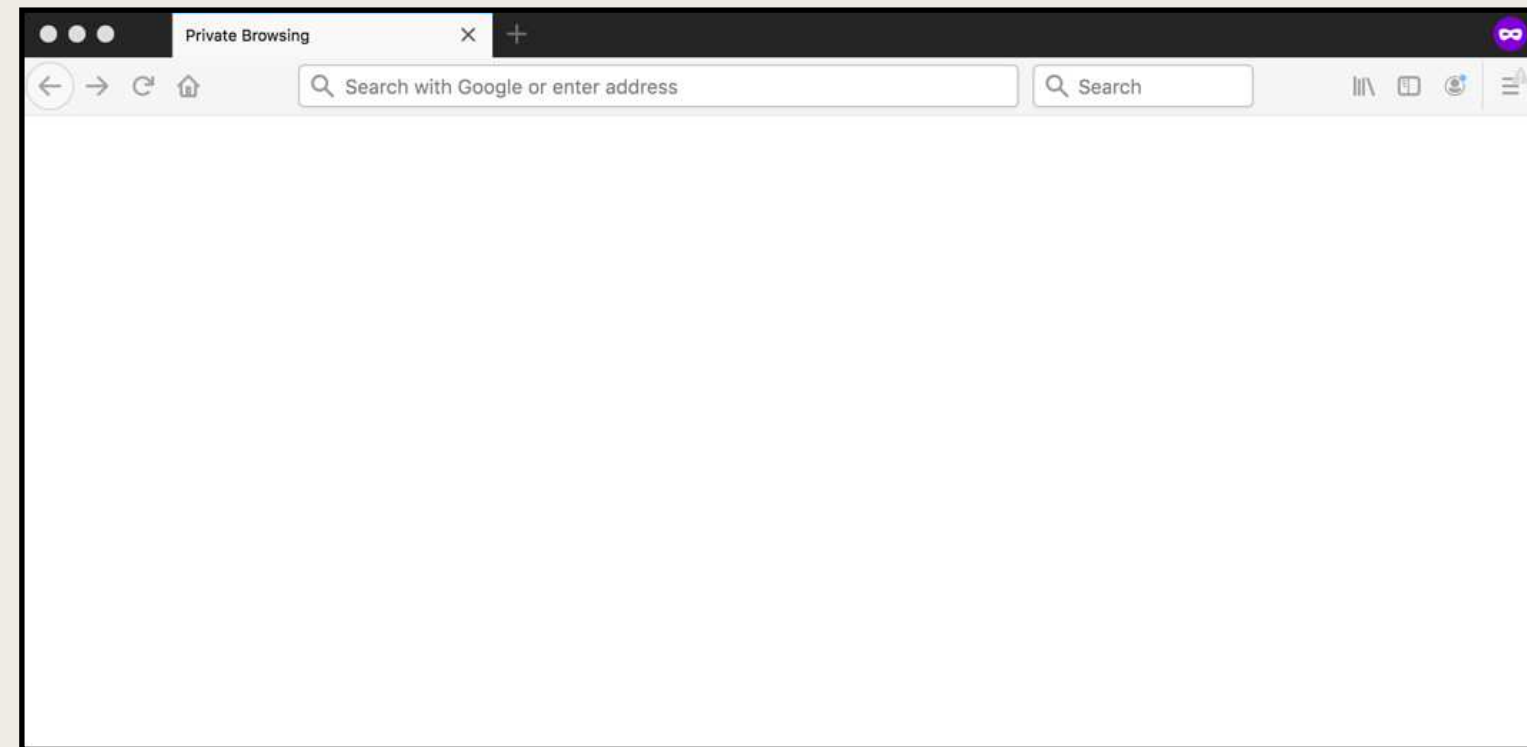
**Official docs
Tutorials**

www.angular.io

**How is Single-Page application
different than
Traditional application?**

Traditional Application

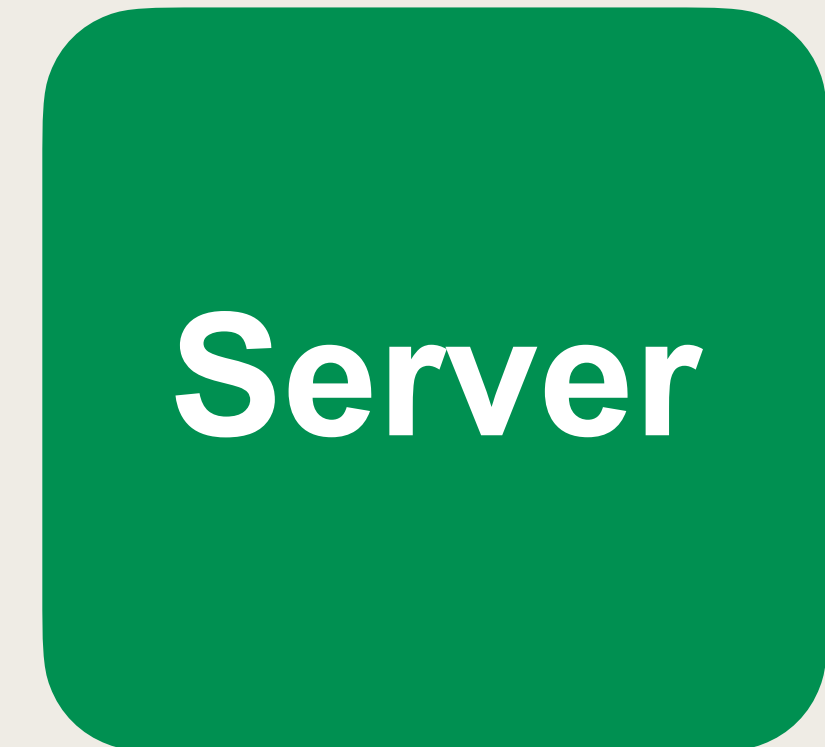
- Each user action results in a full HTML page load



Full HTML Page Loads

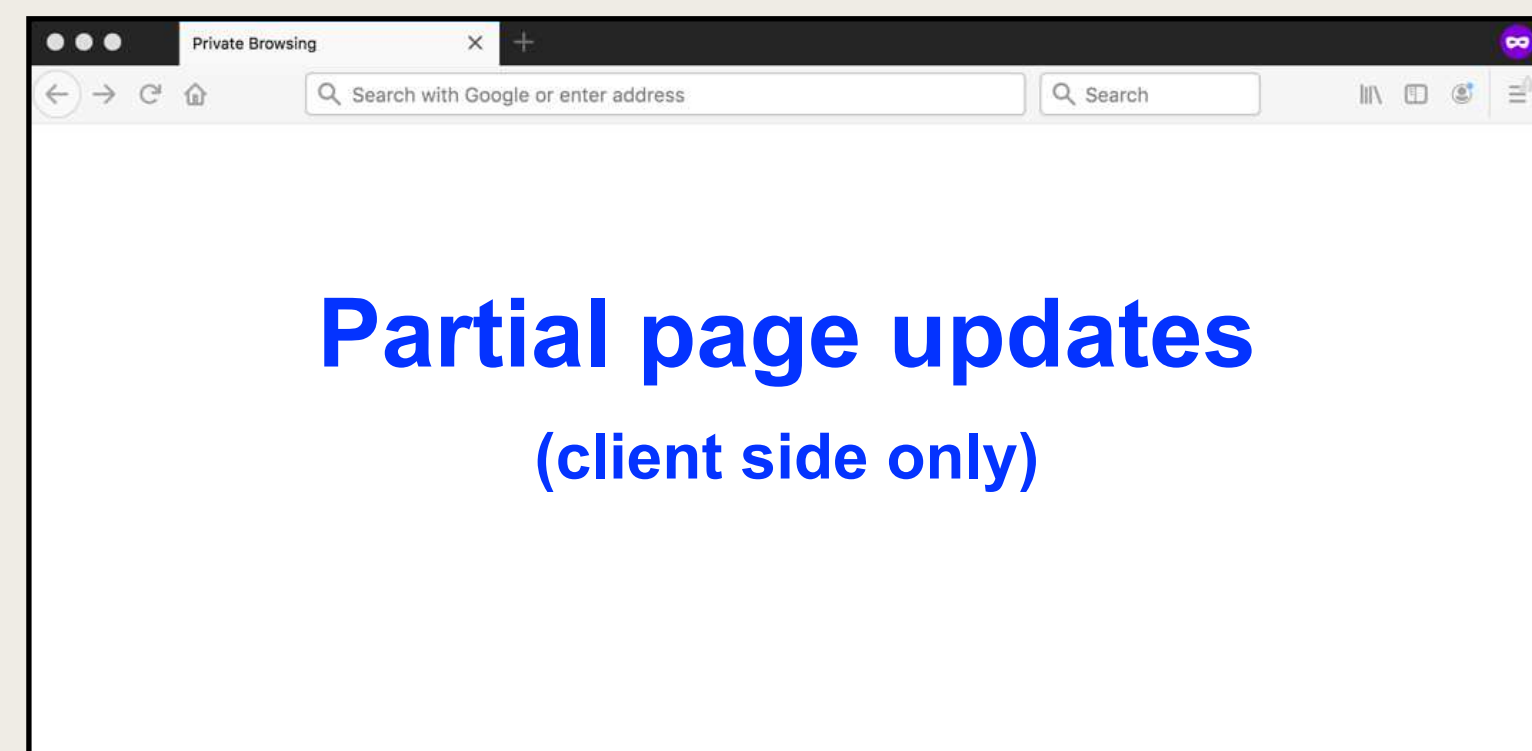


Server



Single-Page Application

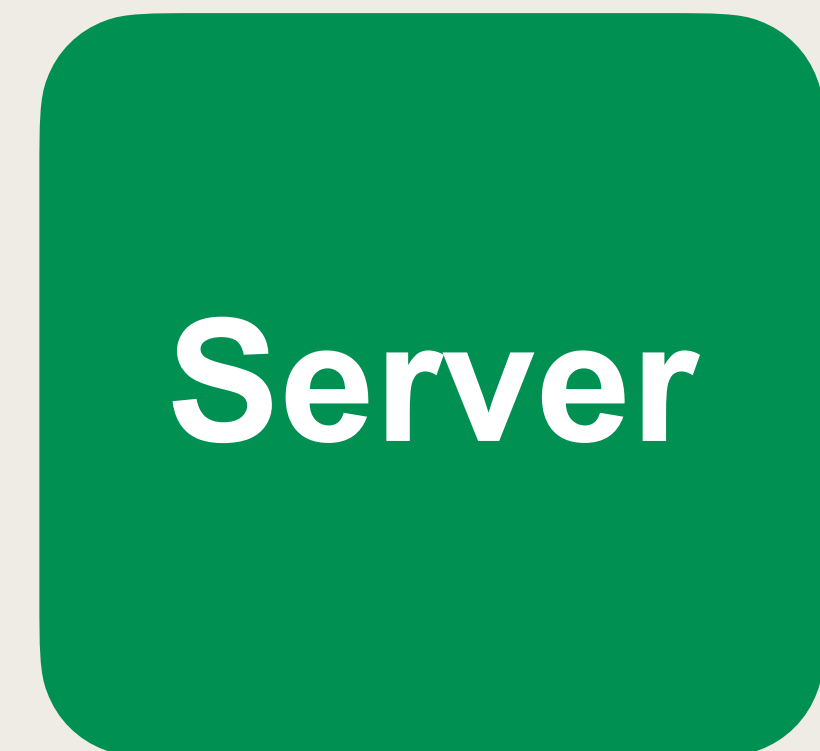
- A web application that is composed of a single page
- Based on user actions, the application page is updated
- Normally performs a partial update ... instead of full page load



REST API for data

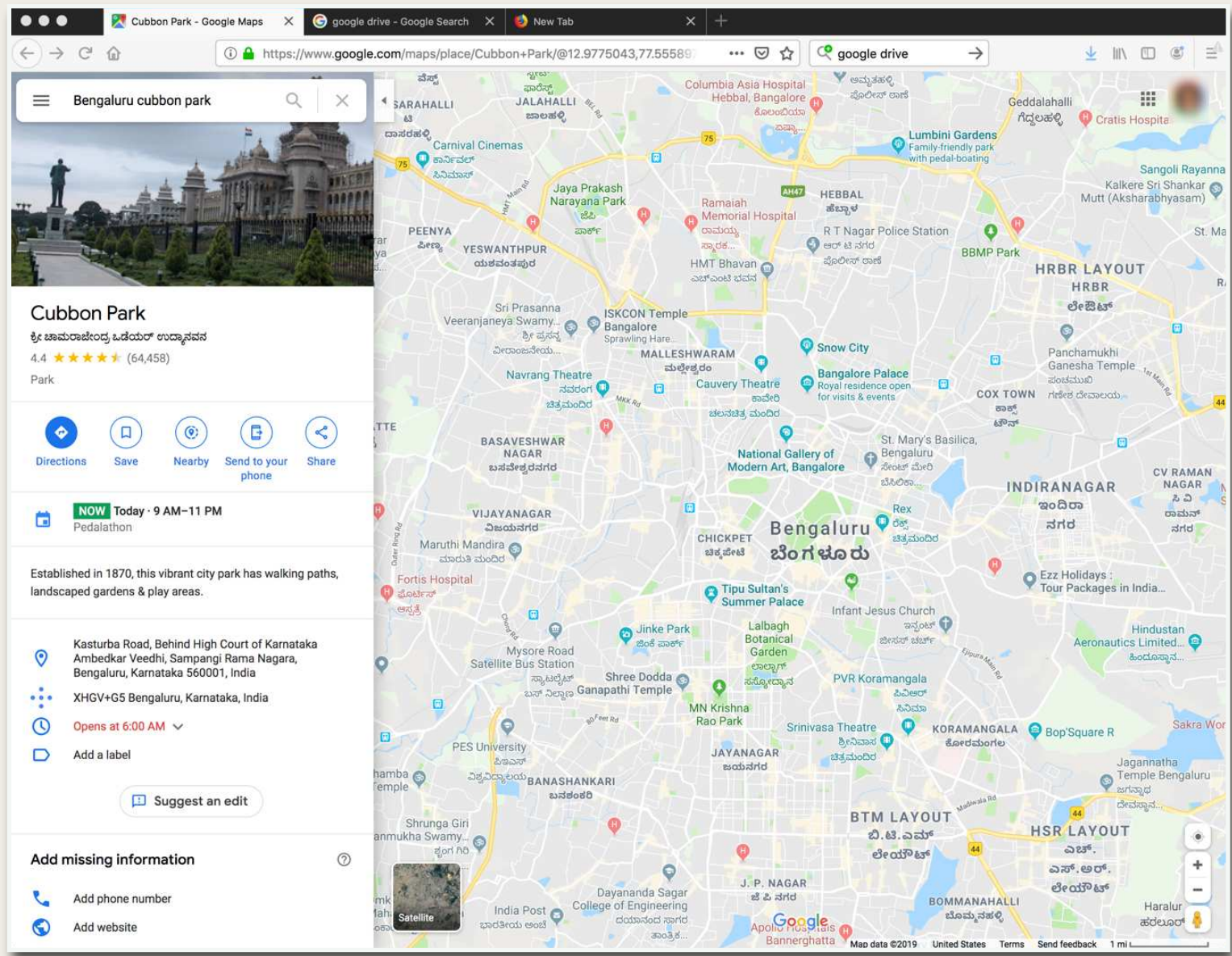


Server

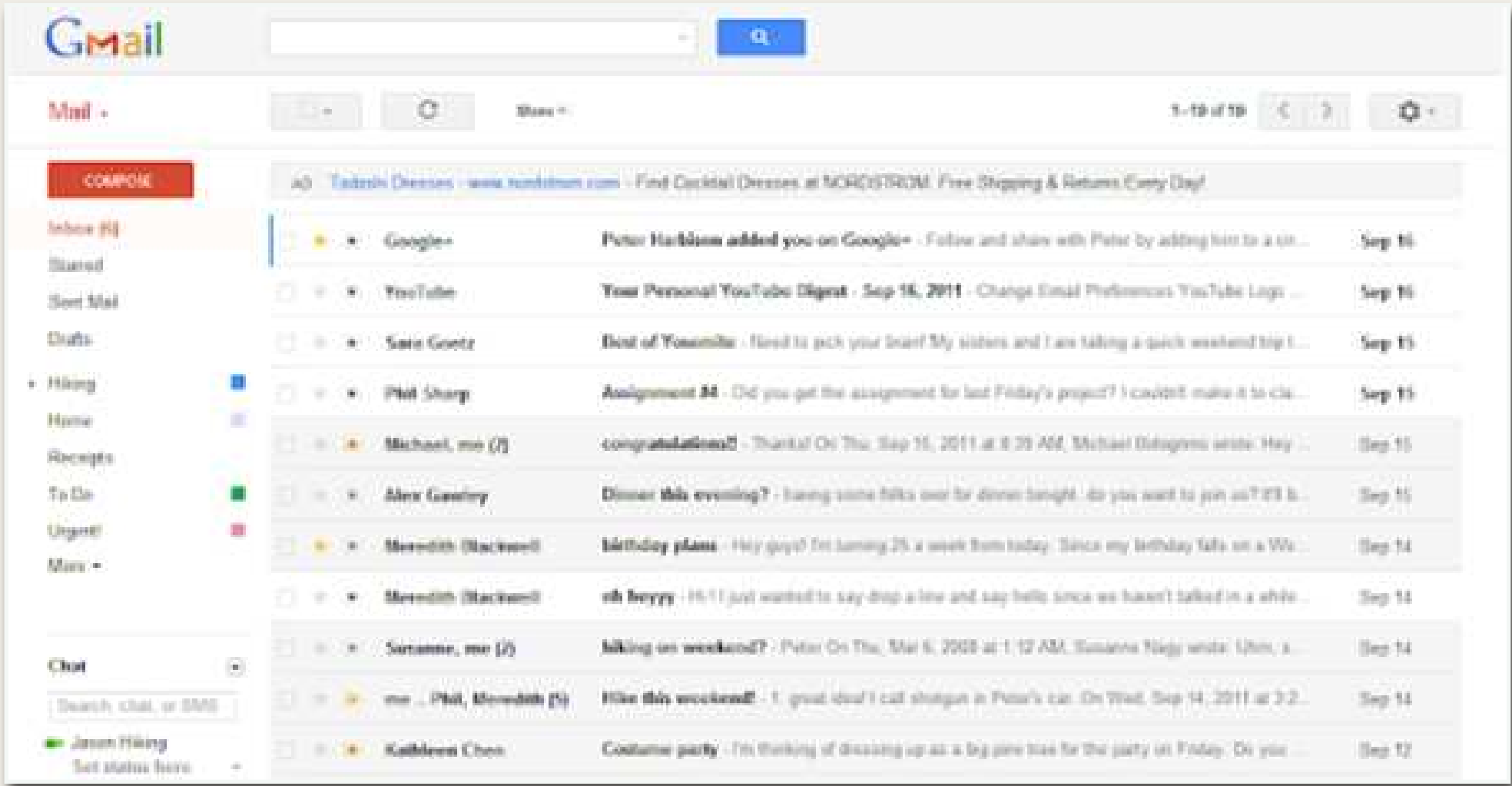


Examples of Single-Page Applications

Maps

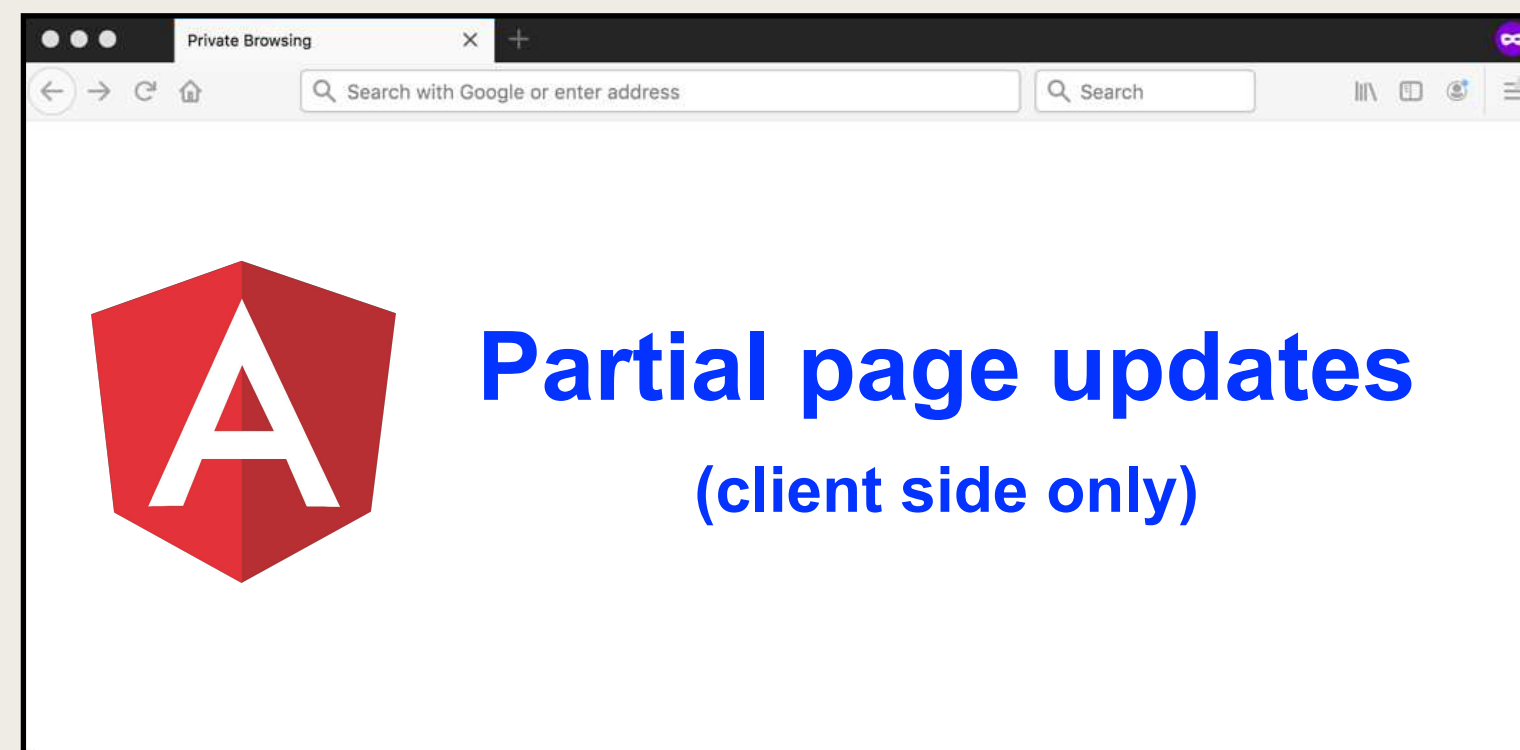


Email



Angular Solution

- Angular is a framework for building modern single-page applications



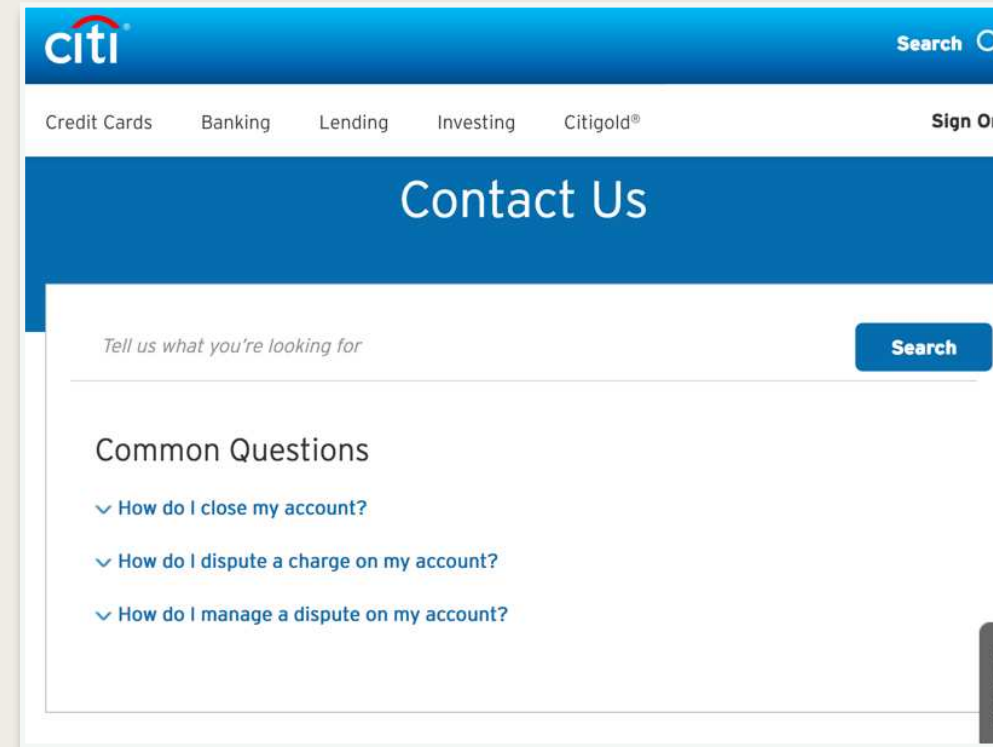
Who's Using Angular?

- Companies around the world are using Angular

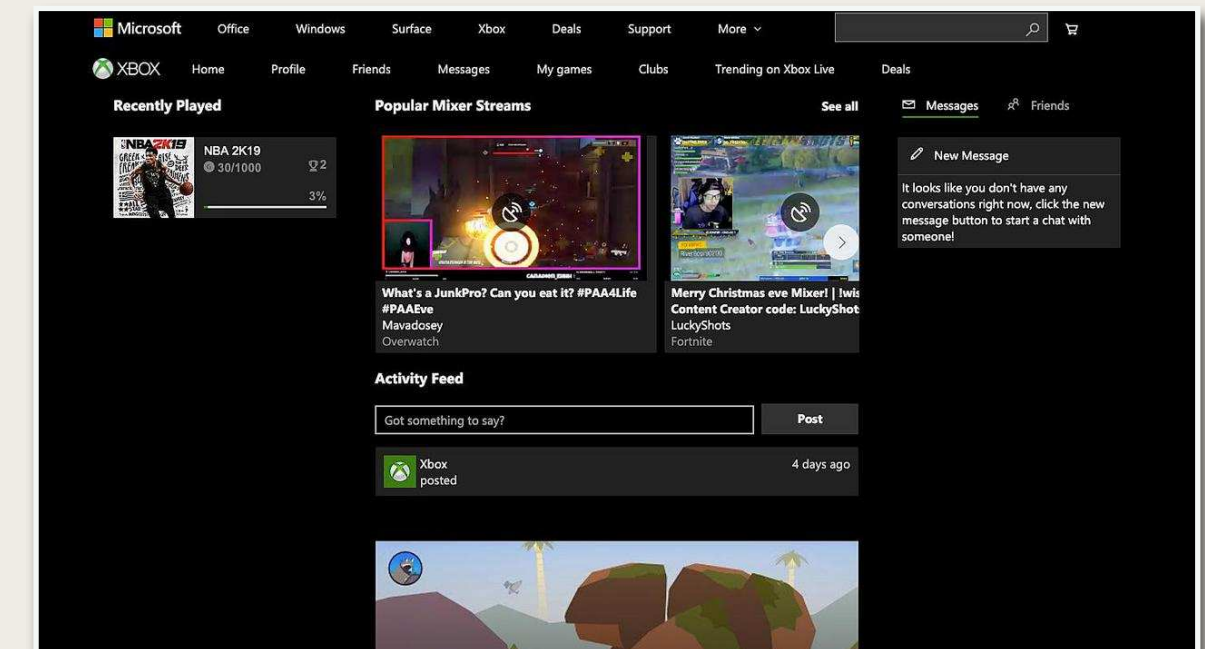
Australian Government Immigration



Citi Bank Customer Service

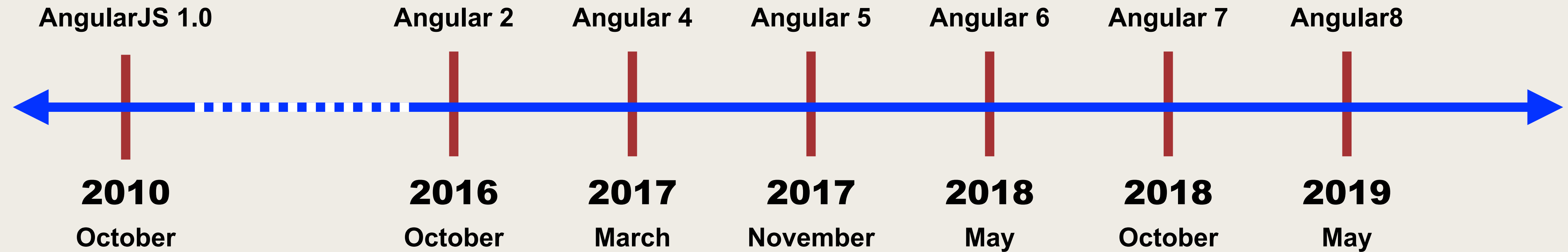


Microsoft Xbox



www.madewithangular.com

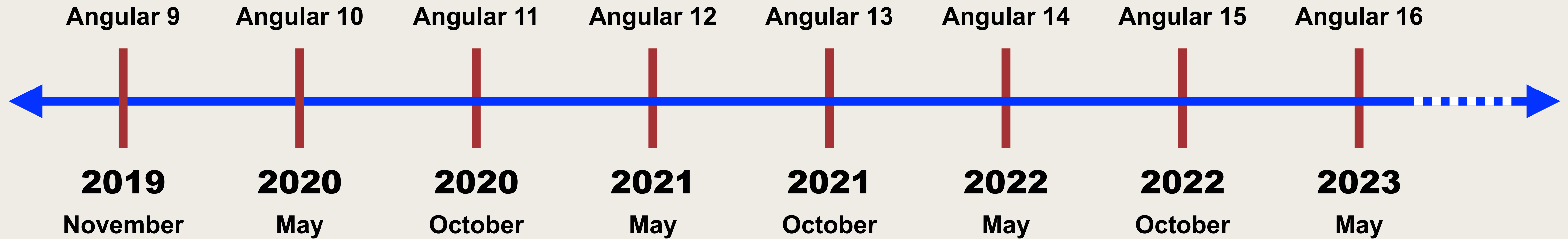
Angular History



Angular 2
was a complete rewrite of
AngularJS

Angular 2 and higher
follow same framework approach
(incremental improvements)

Angular History + Future



Major release every 6 months

Dates are general guidance from Angular team ...
may shift accordingly

What about Do-it-Yourself?

- **FAQ: Couldn't I just do it myself with JavaScript, jQuery, AJAX etc?**
- May work for small basic hobby apps
- For common features such as data binding, you may reinvent the wheel
- Hard to manage and maintain for enterprise real-time applications
- Main reason we have frameworks such **Angular, React.js, Vue.js, ...**

Set up Dev Environment



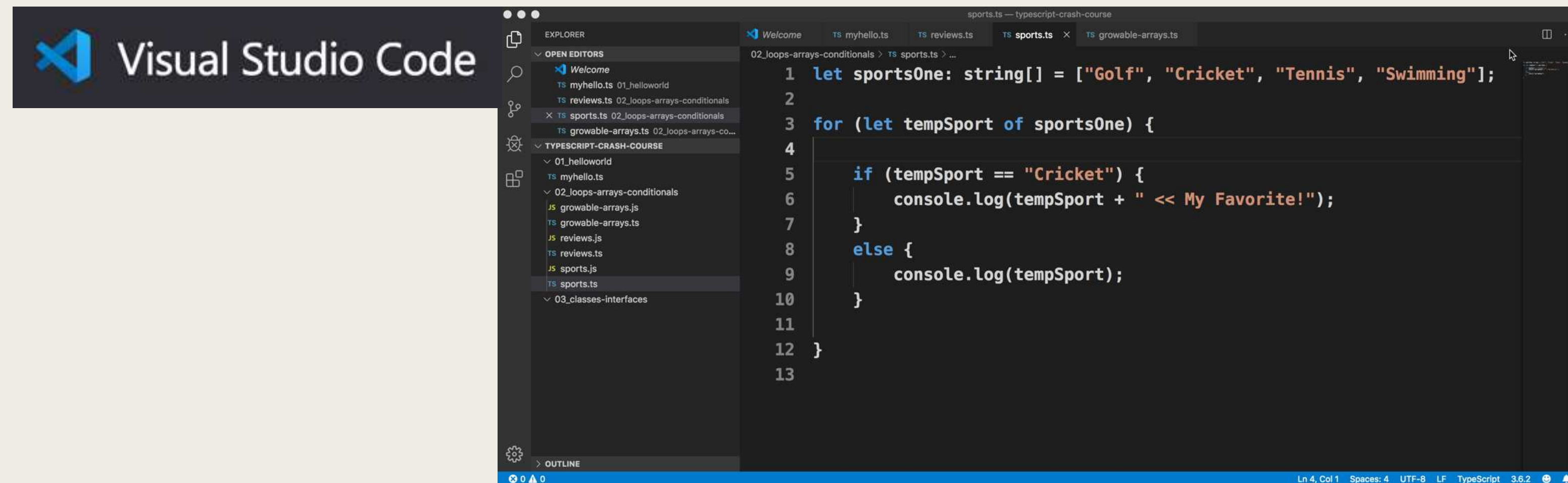
Angular Development Tools

More on TypeScript
in upcoming videos

- You can use any text editor or IDE
- Most Angular developers use the **TypeScript** language
 - Superset of JavaScript
 - Strongly-typed language with compile time checking and IDE support
- Command-line tools to compile code and create Angular apps

Visual Studio Code

- Free IDE that supports multiple programming languages
- Has built-in support for **TypeScript**
- IDE features such as IntelliSense, Debugging, etc ...



<http://code.visualstudio.com>

Command-Line Tools

| Tool | Purpose |
|------|---|
| node | For running JavaScript code from command-line |
| npm | Node Package Manager - Download new node packages and features. Similar to Maven |
| tsc | TypeScript Compiler |

Installation Instructions

- Install tools: Visual Studio Code, node, npm, tsc
- Step-by-step instructions for each operating system

MS Windows

Mac

Linux