Angular Course

In this course you will get a hands-on of the major features of Angular

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23th January, 2018

Why Angular?

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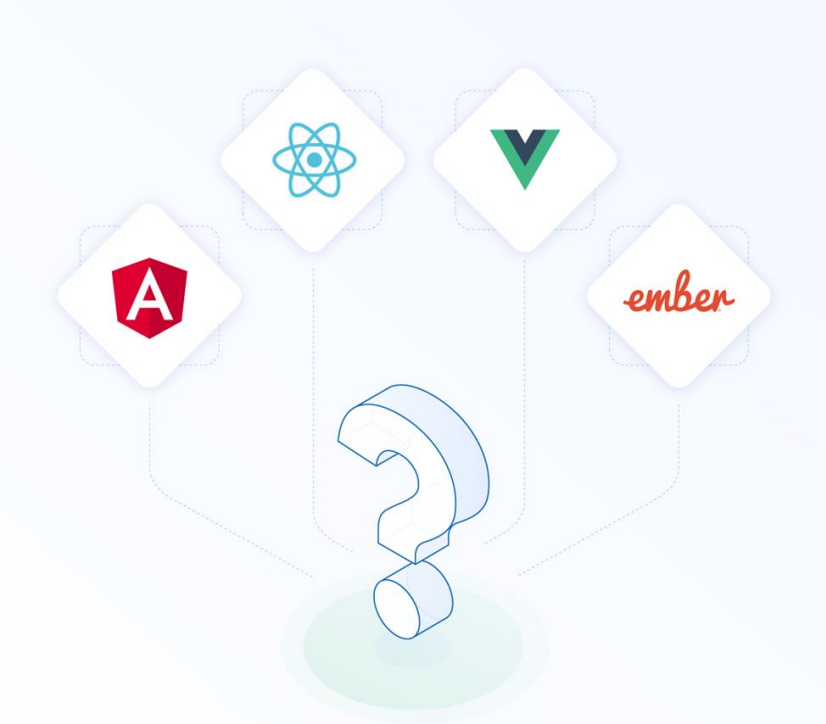
- Availability of Learning Resources
- Popularity
- Core Features
- Usability
- Ease of Integration (with Other Libraries)
- Outputs: Web, Mobile, Desktop



[https://thehappymindset.com/choose-best-front-end-framework/] toptal

Angular Basics

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- Components
- Forms
- Directives
- Pipes
- Services
- Routing
- Observables

Angular Non-Basics

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- App_Initializer
- Redux in Angular
- Unit Testing
- The mechanics of DOM updates in Angular (View encapsulation)
- Analyze an Angular App’s Bundle Size
- Etc.

TypeScript

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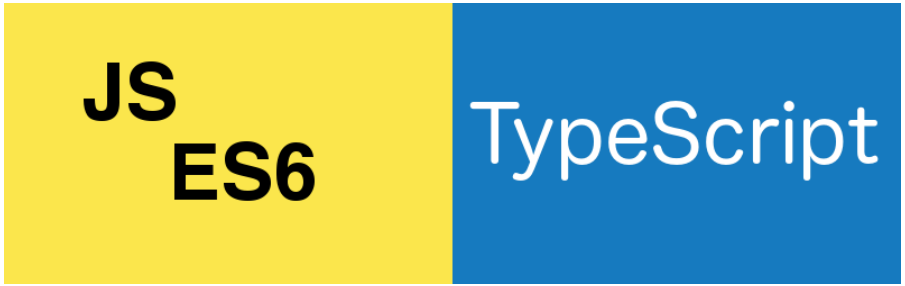
```
function doSomething(someData)
{
    // do something
}
```



Type and Properties of someData?

Node JS + NPM

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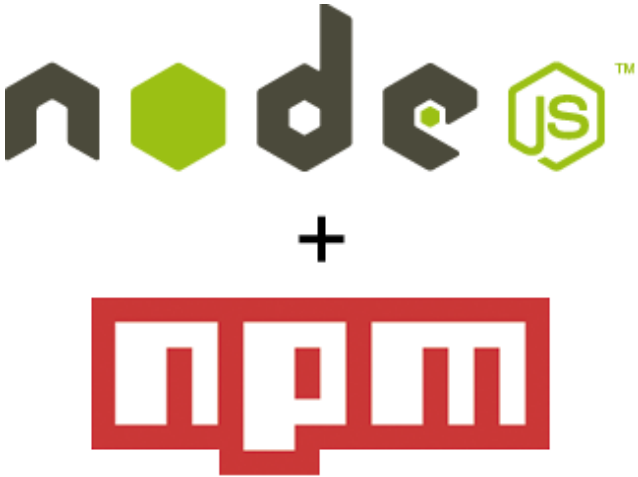
Node JS

Node.js® is a JavaScript runtime built on Chrome's V8 JavaScript engine. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient.



NPM

Node.js' package ecosystem, npm, is the largest ecosystem of open source libraries in the world.

Webpack

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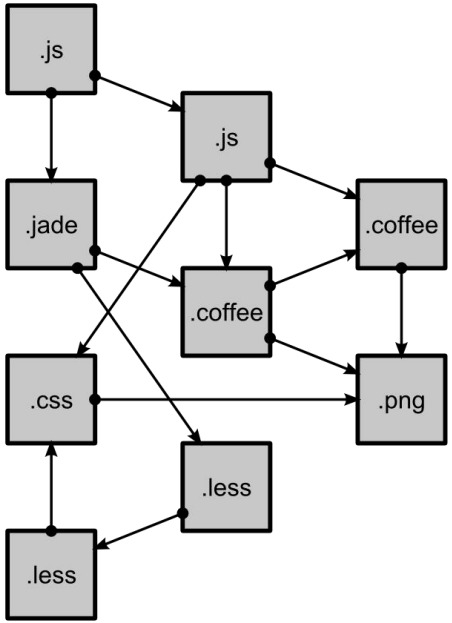
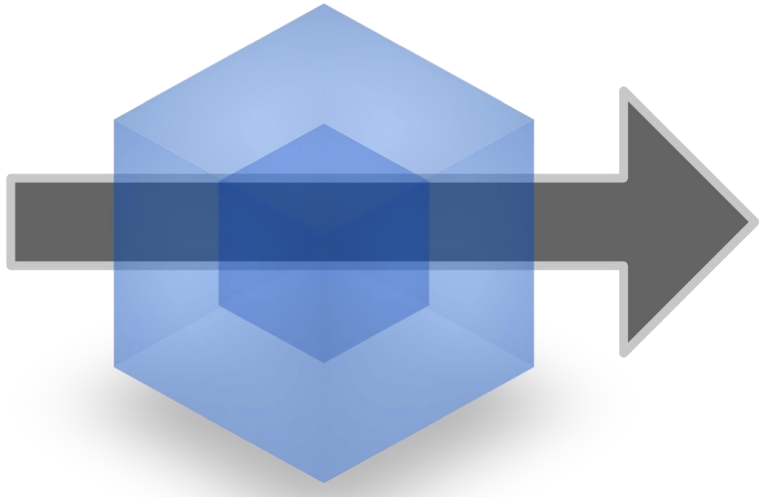
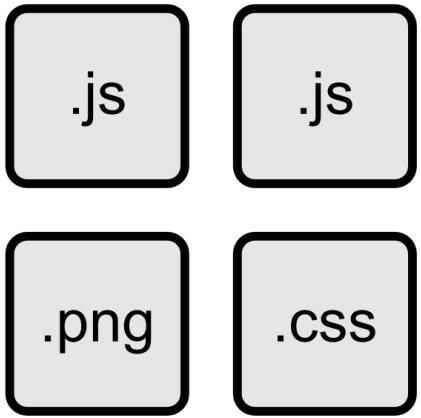


modules
with dependencies



webpack
MODULE BUNDLER



static
assets

Angular CLI

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The Angular CLI is a tool to initialize, develop, scaffold and maintain Angular applications

npm install -g @angular/cli

ng new hccpt
cd hccpt
ng serve

Navigate to http://localhost:4200/.
The app will automatically reload if you change any of the source files.

Angular Solution File Structure

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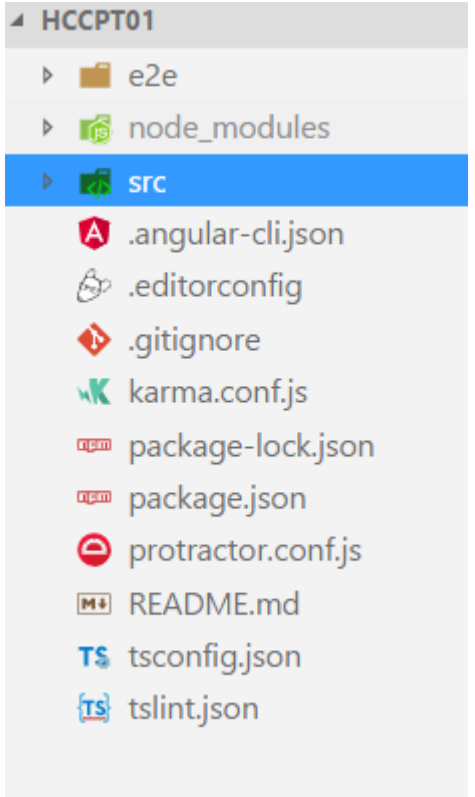

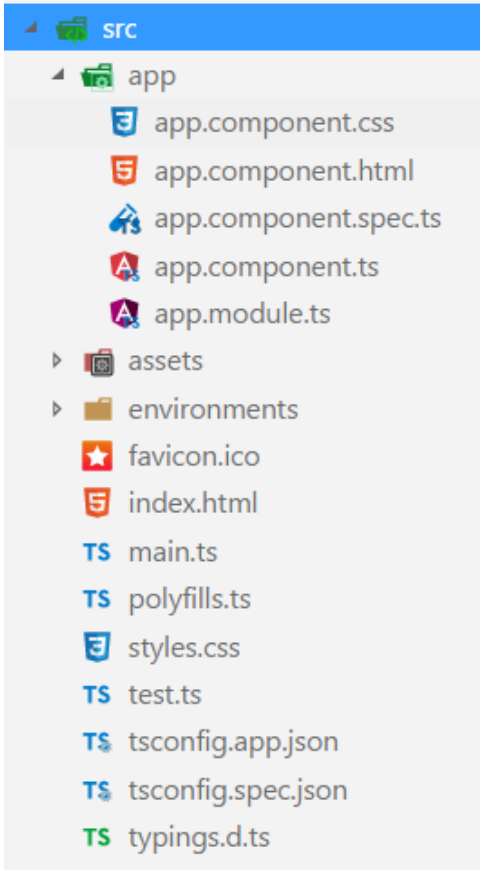

Angular Architecture Overview

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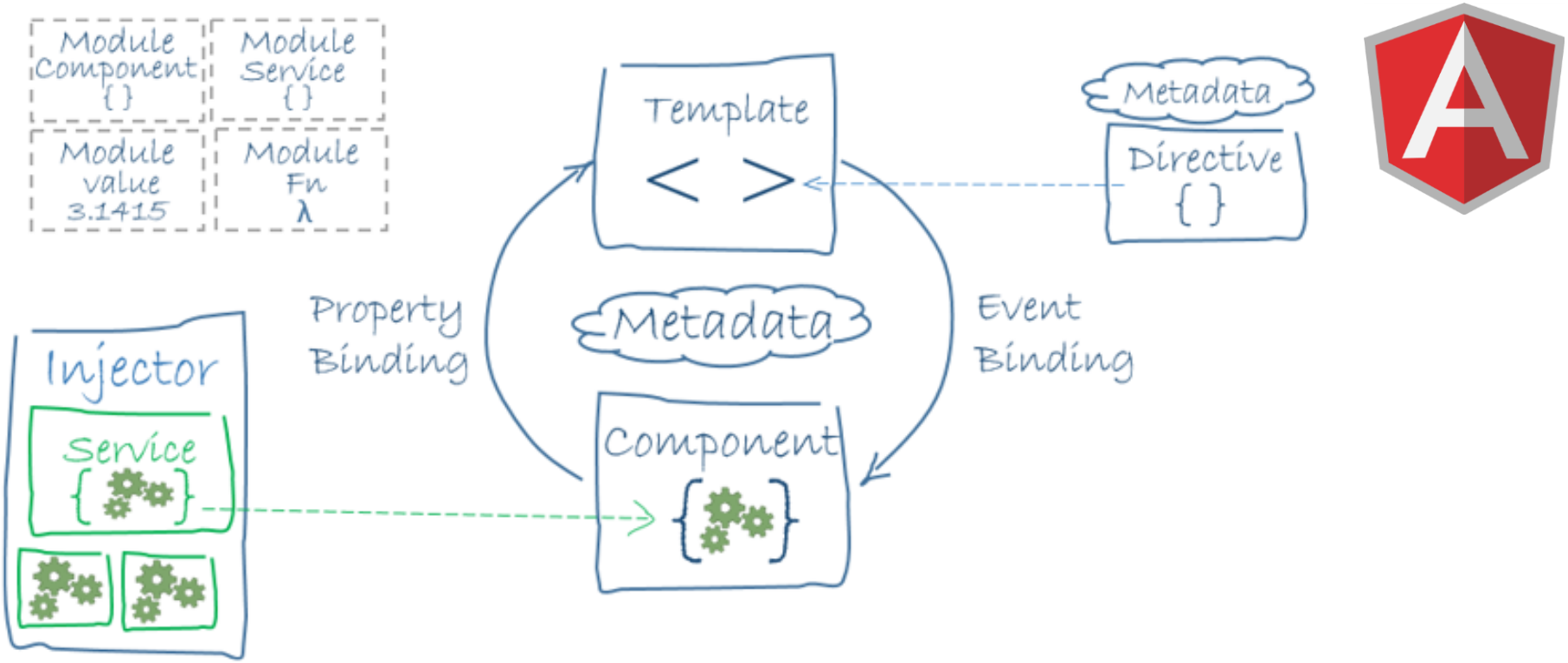

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Our App to build with Angular

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We will build an application to manage a Condominium Administration with the following features:

- Add/Edit Contacts (Owners and Suppliers)
- Add/Edit Payments
- Dashboard with Charts about Payments

Create Application

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https://github.com/davidoliveira/AngularCourse

ng new KondominioApp --routing --style=scss

cd KondominioApp

npm install bootstrap@next --save

npm install --save @ng-bootstrap/ng-bootstrap

ng serve

https://github.com/angular/angular-cli/wiki/generate

https://github.com/angular/angular-cli/wiki/stories

Angular Modules

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```
@NgModule({
  declarations: [
    AppComponent
  ],
  imports: [
    BrowserModule,
    AppRoutingModule,
    NgbModule.forRoot()
  ],
  providers: [],
  bootstrap: [AppComponent]
})
export class AppModule { }
```

https://angular.io/guide/ngmodules

https://angular.io/guide/ngmodule-vs-jsmodule

declarations—this application's lone component.

imports—import BrowserModule to have browser specific services such as DOM rendering, sanitization, and location.

providers—the service providers.

bootstrap—the *root* component that Angular creates and inserts into the index.html host web page.

A declarable can only belong to one module, so only declare it in one @NgModule. When you need it elsewhere, import the module that has the declarable you need in it.

Angular Modules

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ng g component Login

ng g module Contacts --routing

- ng g component Index
- ng g component Detail

ng g module Payments --routing

- ng g component Index
- ng g component Detail

Angular Routing

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https://angular.io/guide/router

https://angular.io/guide/lazy-loading-ngmodules

```
const routes: Routes = [
  { path: 'login', component: LoginComponent },
  {
    path: 'contacts',
    loadChildren: 'app/contacts/contacts.module#ContactsModule'
  },
  {
    path: 'payments',
    loadChildren: 'app/payments/payments.module#PaymentsModule'
  }
];

@NgModule({
  imports: [RouterModule.forRoot(routes)],
  exports: [RouterModule]
})
export class AppRoutingModule { }
```

Questions and Discussion

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