Part I

Introduction

Chapter 1

Introduction

The *Tour of Heroes* tutorial covers the fundamentals of Angular. In this tutorial we will build an app that helps a staffing agency manage its stable of heroes.

This basic app has many of the features we'd expect to find a data-driven application. It acquires and displays a list of heroes, edits a select hero's detail, and navigates among different views of heroic data.

By the end of the tutorial we will be able to do the following:

- Use built-in Angular directives to show and hide elements and display lists of hero data.
- Create Angular components to display hero details and show an array of heroes
- Use one-way data binding for read-only data
- Add editable fields to update a model with two-way data binding
- Bind component methods to user events, like keystrokes and clicks
- Enable users to select a hero from a master list and edit that hero in the details view
- Format data with pipes
- Create a shared service to assemble the heroes
- Use routing to navigate among different views and their components.

Part II

The Application Shell

Chapter 2

The Application Shell

2.1 Install the Angular CLI

In your command line, after installing node.js and getting npm updated (see its website), install Angular by using the following command:

$npminstall - g@angular/cli$

2.2 Create a new application

Create a new project named angular-tour-of-heroes with the following CLI command, in the folder in which you want to create the app directory:

ng new angular-tour-of-heroes

The Angular CLI generated a new project with a default application and supporting files.

2.3 Serve the application

Go to the project directory in your CLI and launch the application:

- cd [project-directory]
- ng serve –open

The ng serve command build the app, starts the development server, watches the source files, and rebuilds the app as we make changes to those files. The –open flag opens a browser at localhost:4200/

2.4 Angular components

The page we see is the application shell. This shell is controlled by an Angular component named AppComponent.

Components are the fundamental building blocks of angular applications. They display data on the screen, listen for user input, and take action based on that input.

2.5 Change the application title

Open the project in your favourite editor or IDE and navigate to the src/app folder. You'll find an implementation of the shell AppComponent distributed over three files@

1. app.component.ts - the component class code, written in TypeScript
2. app.component.html - the component template, written in HTML
3. app.component.css - the component's private CSS styles

Open the component class file (app.component.ts) and change the value of the title property to 'Tour of Heroes'.

```
    title = 'Tour of Heroes';
```

Open the component template file (app.component.html) and delete the default template generated by the Angular CLI. Replace it with the following line of HTML:

```
    <h1>{{title}}</h1>
```

The double curly braces are Angular's *interpolationbinding* syntax. This interpolation binding presents the component's title property value inside the HTML header tag. The browser refreshes and displays the new application title.

2.6 Add application styles

Most apps strive for a consistent look across the application. The CLI generated an empty styles.css for this purpose. There is where we shall put our application-wide styles.

Here's an exceprt from the styles.css for the *TourofHeroes* sample app:

```
    /* Application-wide Styles */
    h1{
        color: #369;
        font-family: Arial, Helvetica, sans-serif;
        font-size: 250%;
    }
    h2, h3{
        color: #444;
        font-family: Arial, Helvetica, sans-serif;
        font-weight: ligther;
    }
    body{
        margin: 2em;
    }
    body, input[text], button{
        color: #888;
        font-family: Cambria, Georgia;
    }
    /* everywhere else */
    *{
        font-family: Arial, Helvetica, sans-serif;
    }
```

2.7 Final code review

The source code for this tutorial and the complete *TourofHeroes* global styles are available in the download example.

2.8 Summary

- We created the initial application structure using the Angular CLI
- We learned that Angular components display data
- We used the double curly braces of interpolation to display the app title.