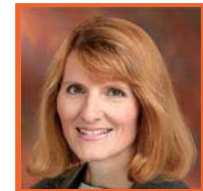


Visualizing Data With Charts

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@DeborahKurata



pluralsight
hardcore dev and IT training



Analyzing Profit Margin

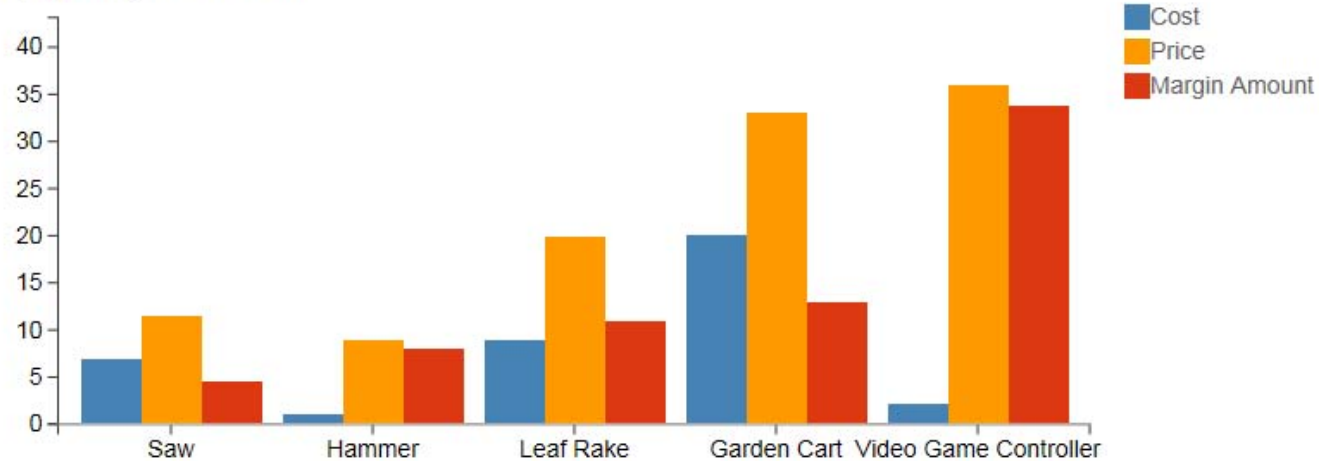
Price List

Name	Code	Cost	Price	Margin %	Filter ▼
Video Game Controller	GMG-0042	2.22	35.95	94	
Hammer	TBX-0048	1.00	8.99	89	
Leaf Rake	GDN-0011	9.00	19.95	55	
Saw	TBX-0022	6.95	11.55	40	
Garden Cart	GDN-0023	20.00	32.99	39	

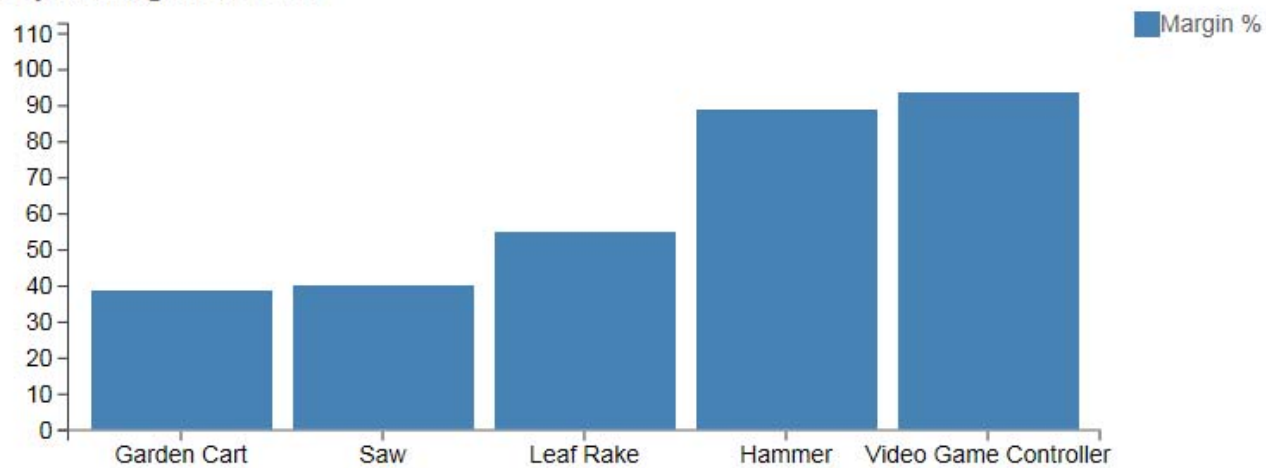
Analyzing Profit Margin

Price Analytics

Top \$ Margin Products



Top % Margin Products



Module Objectives

Download the charting component

Define a new route state

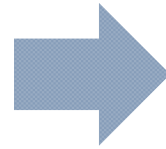
Define a new menu option

Build the view

Build the controller

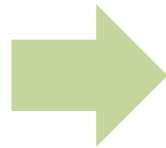
Angular Line of Business Applications

Business Requirements



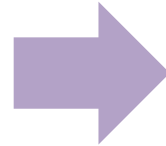
- Application Features
- Design Considerations
- Architecture

Layout and Navigation



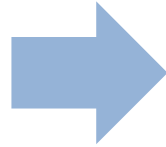
- Page Layout (View)
- Style (Bootstrap)
- Navigation (Routing)

Data Access



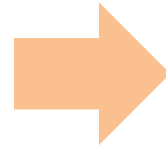
- Retrieving data
- Saving data

Data Entry Forms



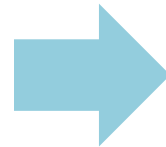
- Form layout
- Validation
- Submittal

Business Logic



- Services

Data Visualization



- Charts

D3.js



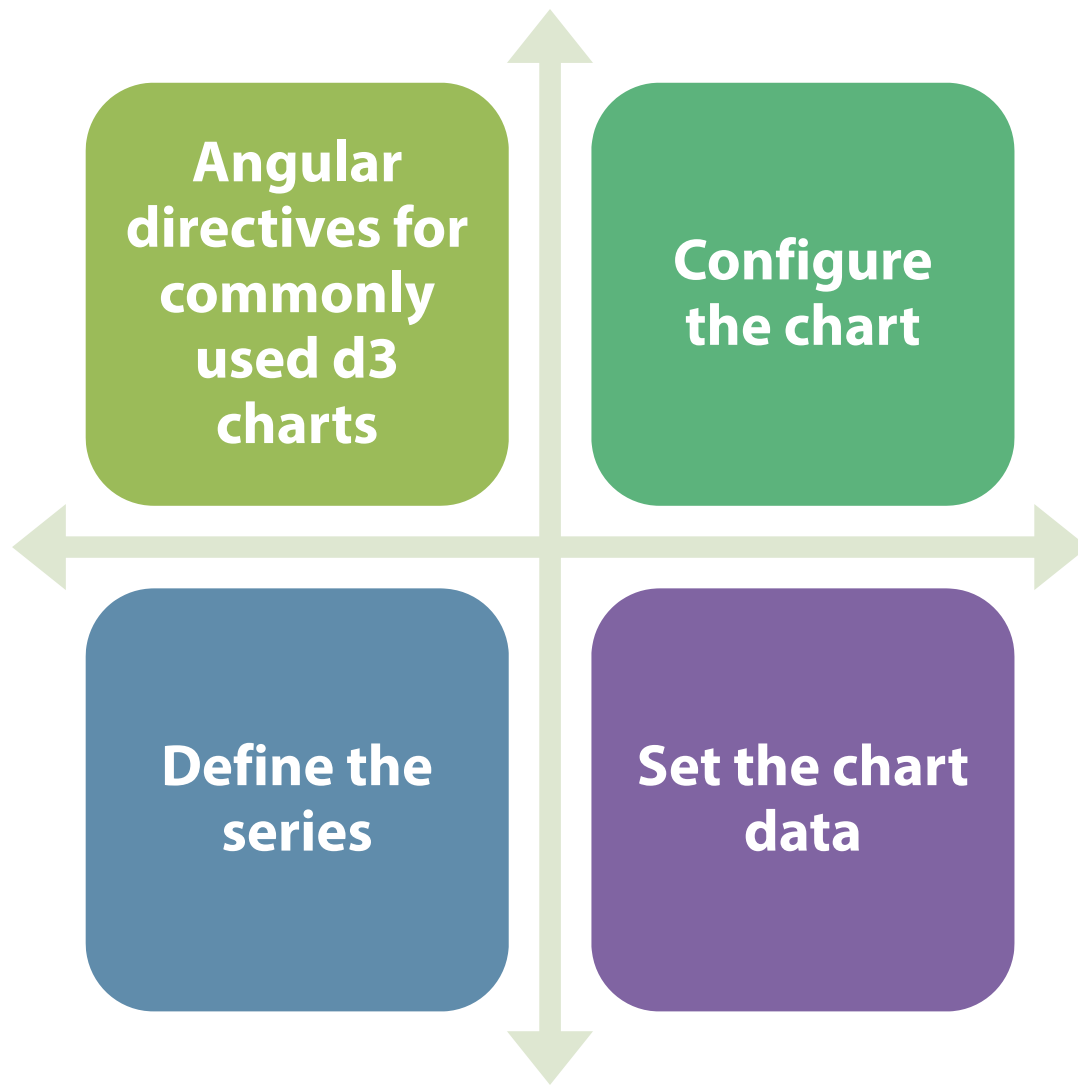
**JavaScript library
for manipulating documents
based on data**

**Provides powerful data
visualization components**

Is commonly used to build charts

Has a steep learning curve

Angular-Charts



Setting Up

Download Angular-charts

<http://chinmaymk.github.io/angular-charts>

Download d3.js

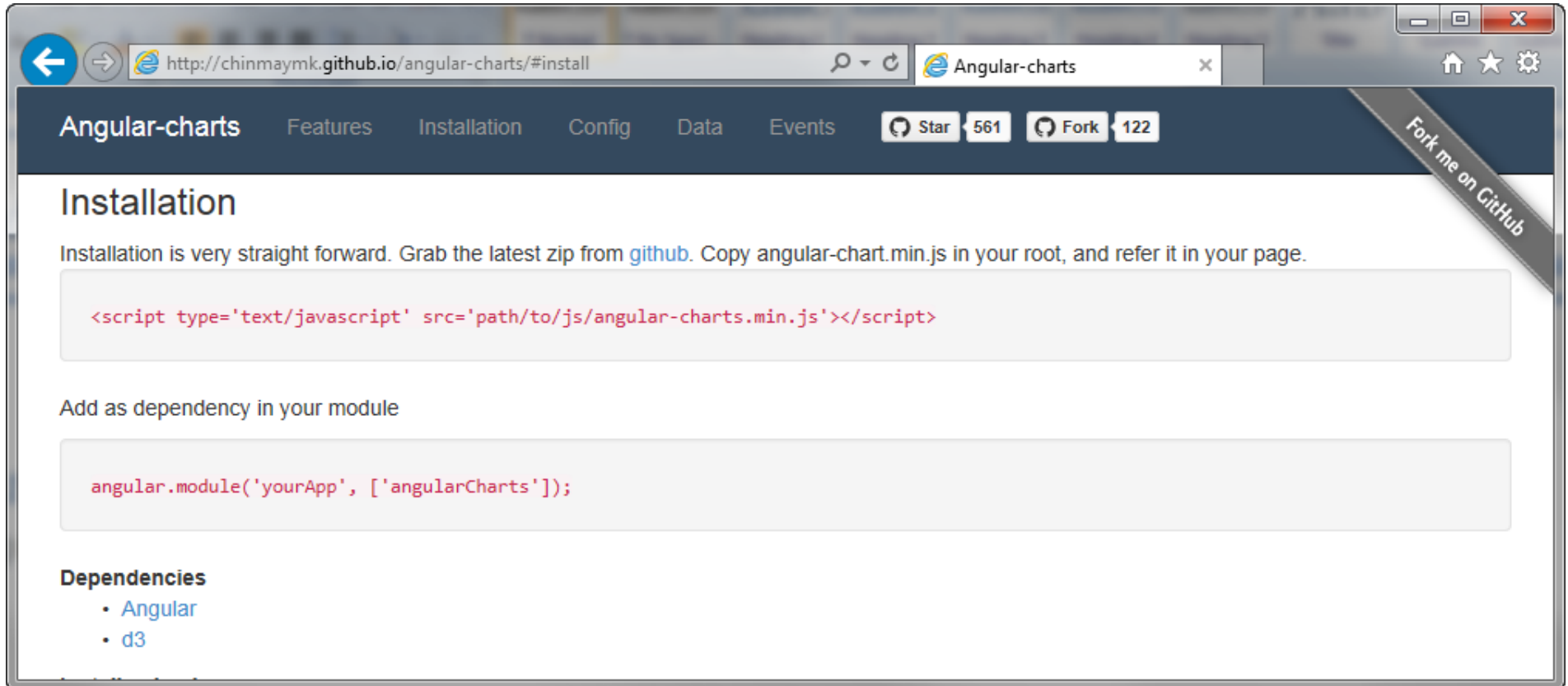
<http://d3js.org/>

Add the .js files to the js directory of the project

Add references to the .js files in index.html

Add a module dependency on angularCharts

Installation: Angular-charts



The screenshot shows a web browser window with the address bar displaying `http://chinmaymk.github.io/angular-charts/#install`. The page title is "Angular-charts". The navigation menu includes "Features", "Installation", "Config", "Data", and "Events". The "Installation" section is active, showing instructions for installing the library. It includes a code block for the script tag and a code block for adding the library as a dependency in an Angular module. The dependencies listed are "Angular" and "d3". A "Fork me on GitHub" banner is visible in the top right corner.

Angular-charts Features Installation Config Data Events Star 561 Fork 122

Installation

Installation is very straight forward. Grab the latest zip from [github](#). Copy angular-chart.min.js in your root, and refer it in your page.

```
<script type='text/javascript' src='path/to/js/angular-charts.min.js'></script>
```

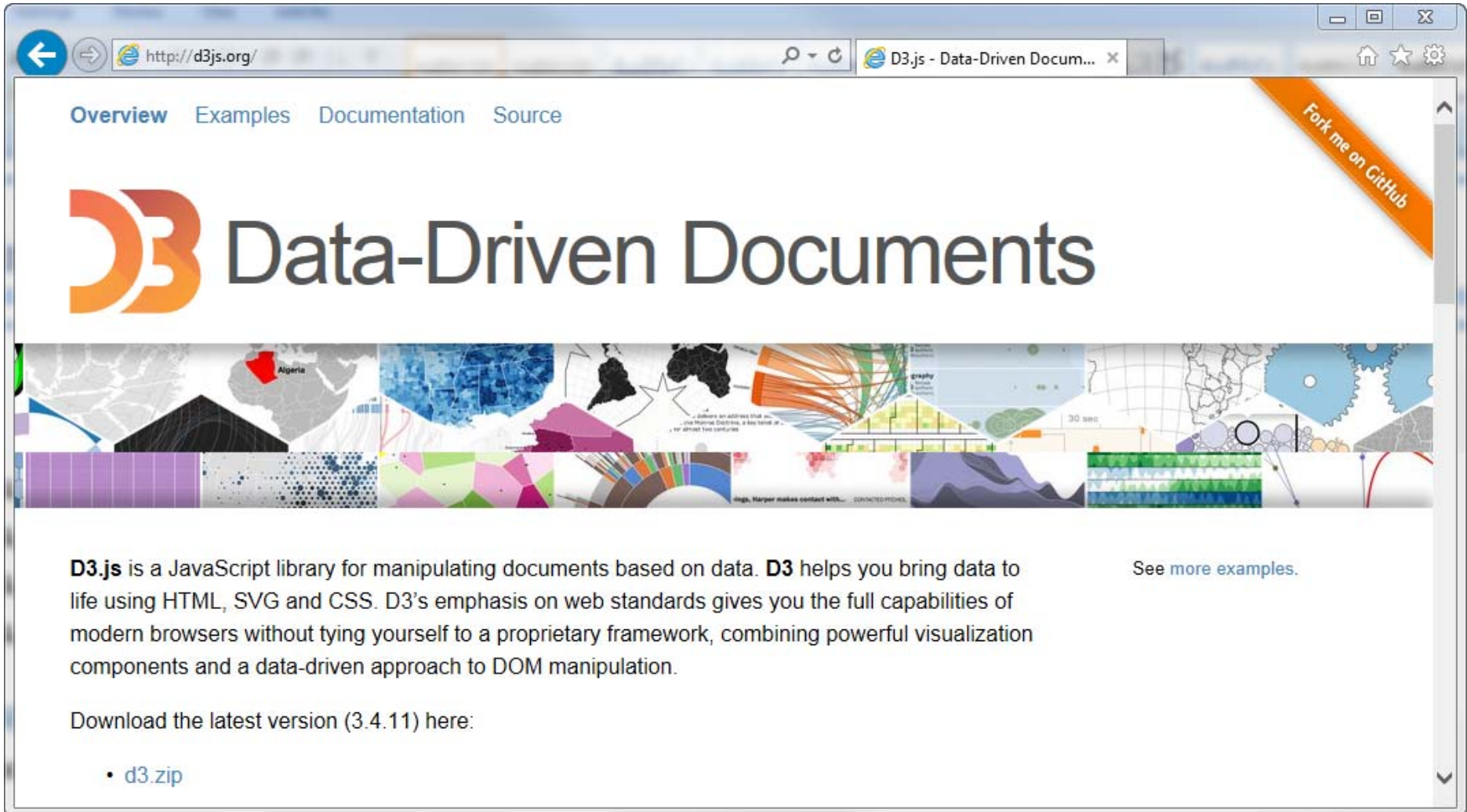
Add as dependency in your module

```
angular.module('yourApp', ['angularCharts']);
```

Dependencies

- [Angular](#)
- [d3](#)

Installation: d3.js



The screenshot shows a web browser window with the address bar displaying `http://d3js.org/`. The page has a navigation bar with links: [Overview](#), [Examples](#), [Documentation](#), and [Source](#). The main heading is "Data-Driven Documents" with a large orange "D3" logo. Below the heading is a horizontal banner featuring various data visualizations, including maps, charts, and network diagrams. A diagonal orange banner in the top right corner says "Fork me on GitHub". The main text describes D3.js as a JavaScript library for manipulating documents based on data, emphasizing its use of HTML, SVG, and CSS. It also provides a link to "See more examples." and a download link for the latest version (3.4.11) as [d3.zip](#).

[Overview](#) [Examples](#) [Documentation](#) [Source](#)

D3 Data-Driven Documents

[Fork me on GitHub](#)

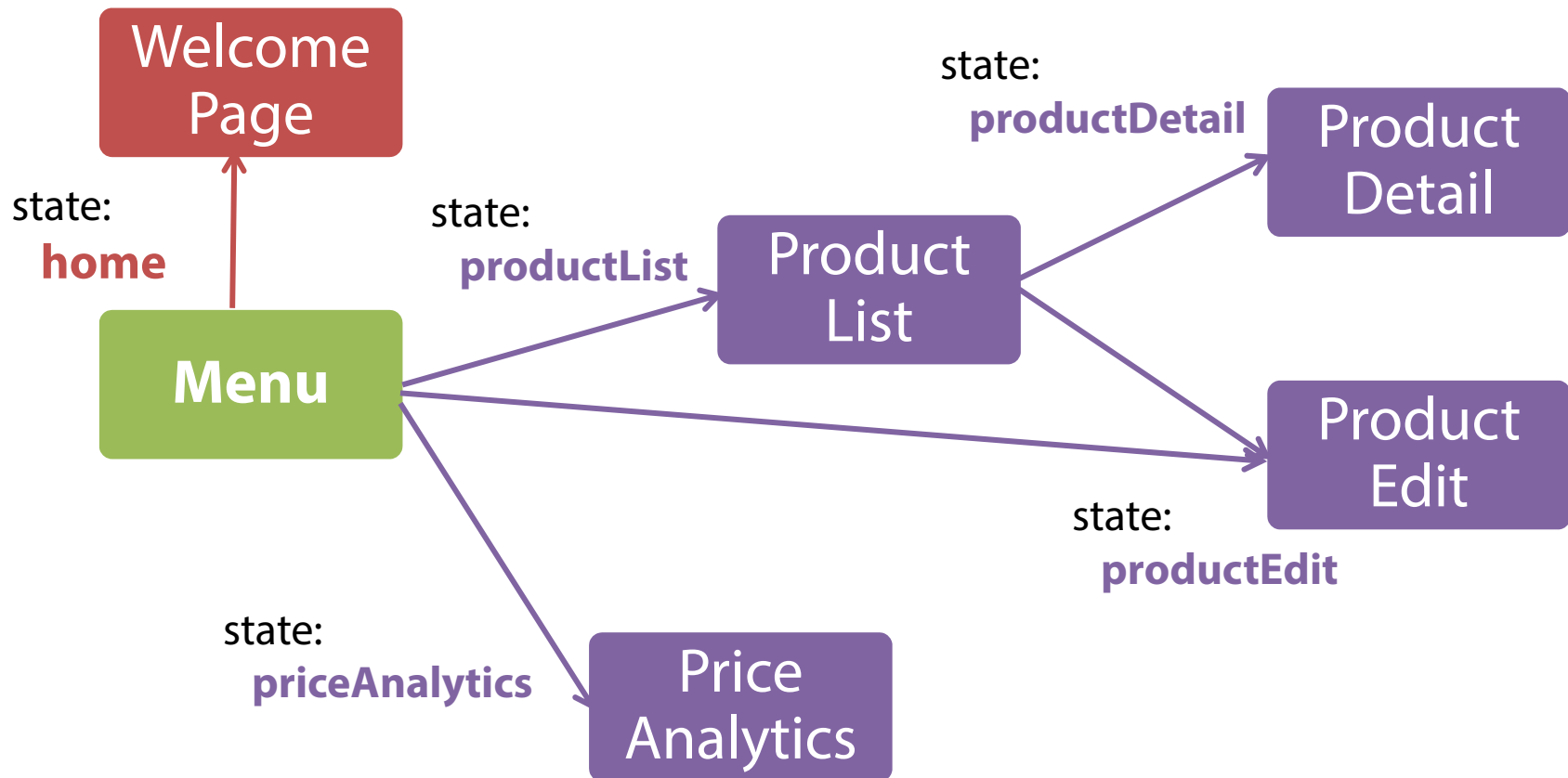
D3.js is a JavaScript library for manipulating documents based on data. D3 helps you bring data to life using HTML, SVG and CSS. D3's emphasis on web standards gives you the full capabilities of modern browsers without tying yourself to a proprietary framework, combining powerful visualization components and a data-driven approach to DOM manipulation.

See [more examples](#).

Download the latest version (3.4.11) here:

- [d3.zip](#)

Route States



Menu Option

Acme Product Management

Product List

+ Add Product

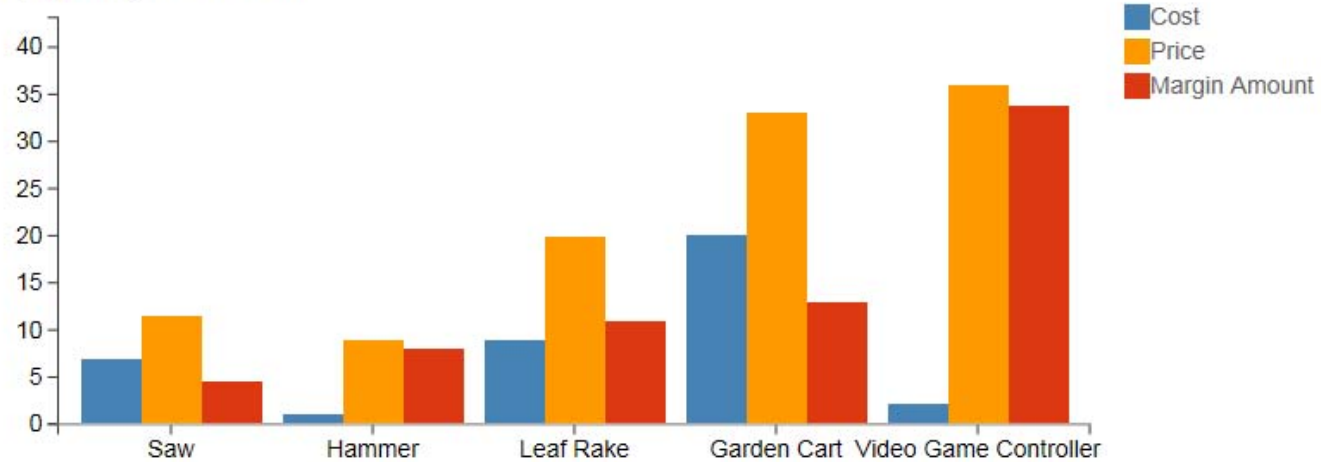
Price Analytics

Acme Product Management

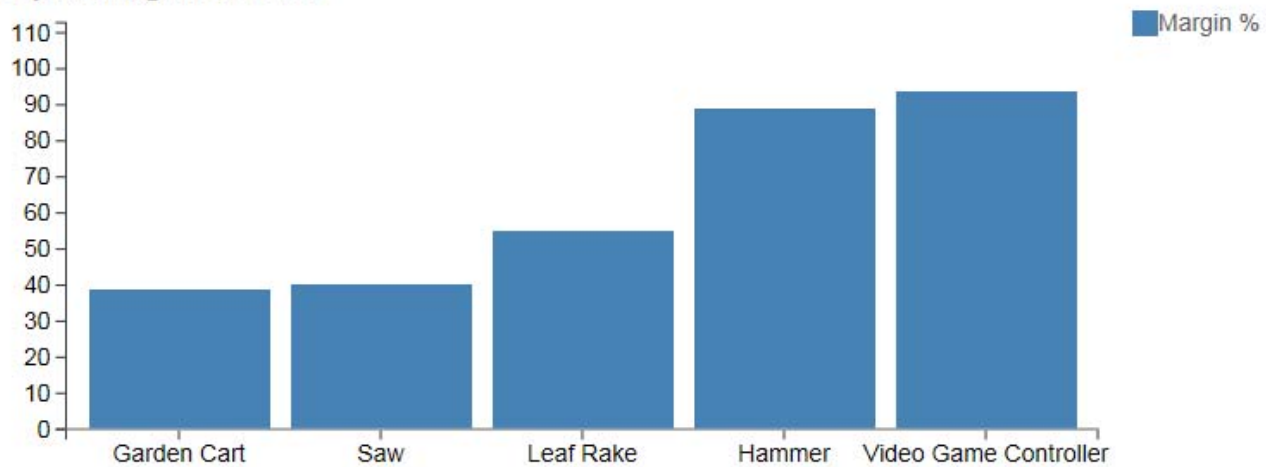
Chart View

Price Analytics

Top \$ Margin Products



Top % Margin Products



Charting Directives

```
<div ac-chart="' bar' "  
      ac-data="dataAmount"  
      ac-configuration="configurationAmount"  
      class="chart">  
</div>
```

Chart Controller

Retrieve the Data

Filter the Data

**Format the Data
for the Chart**

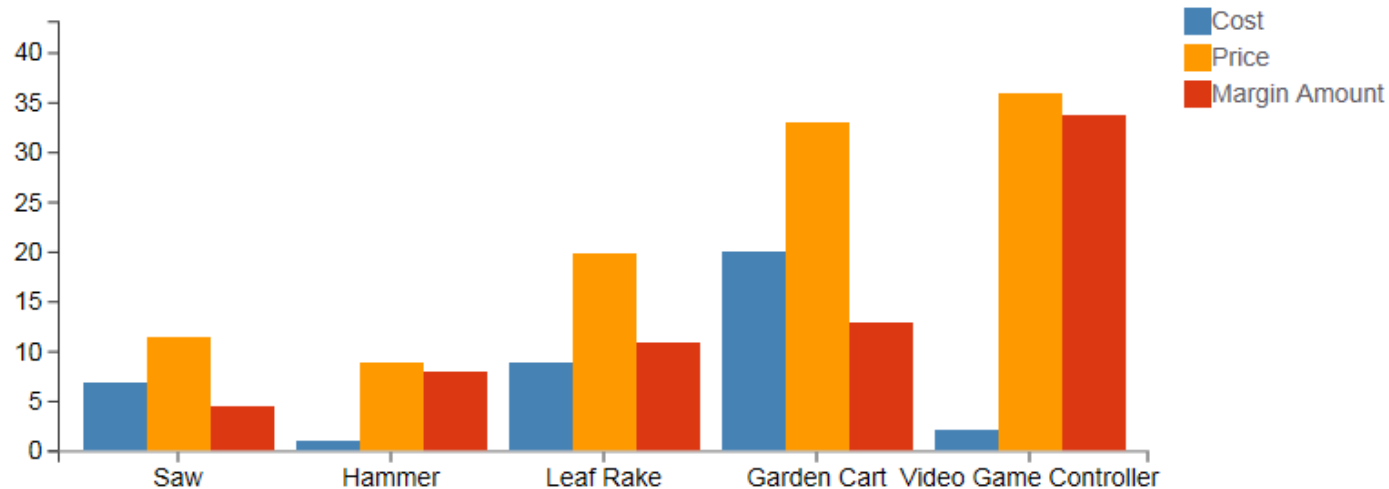
**Define the
ac-data variable
(series and data)**

**Configure the
chart with the
ac-config
variable**

Chart Data

```
var chartDataAmount = [];  
for (var i = 0; i < products.length; i++) {  
    chartDataAmount.push({  
        x: products[i].productName,  
        y: [products[i].cost,  
            products[i].price,  
            products[i].marginAmount]  
    });  
}
```

Top \$ Margin Products



Module Objectives



Download the charting component



Define a new route state



Define a new menu option



Build the view



Build the controller

Angular Line of Business Applications

