



# View, Directives and Filters



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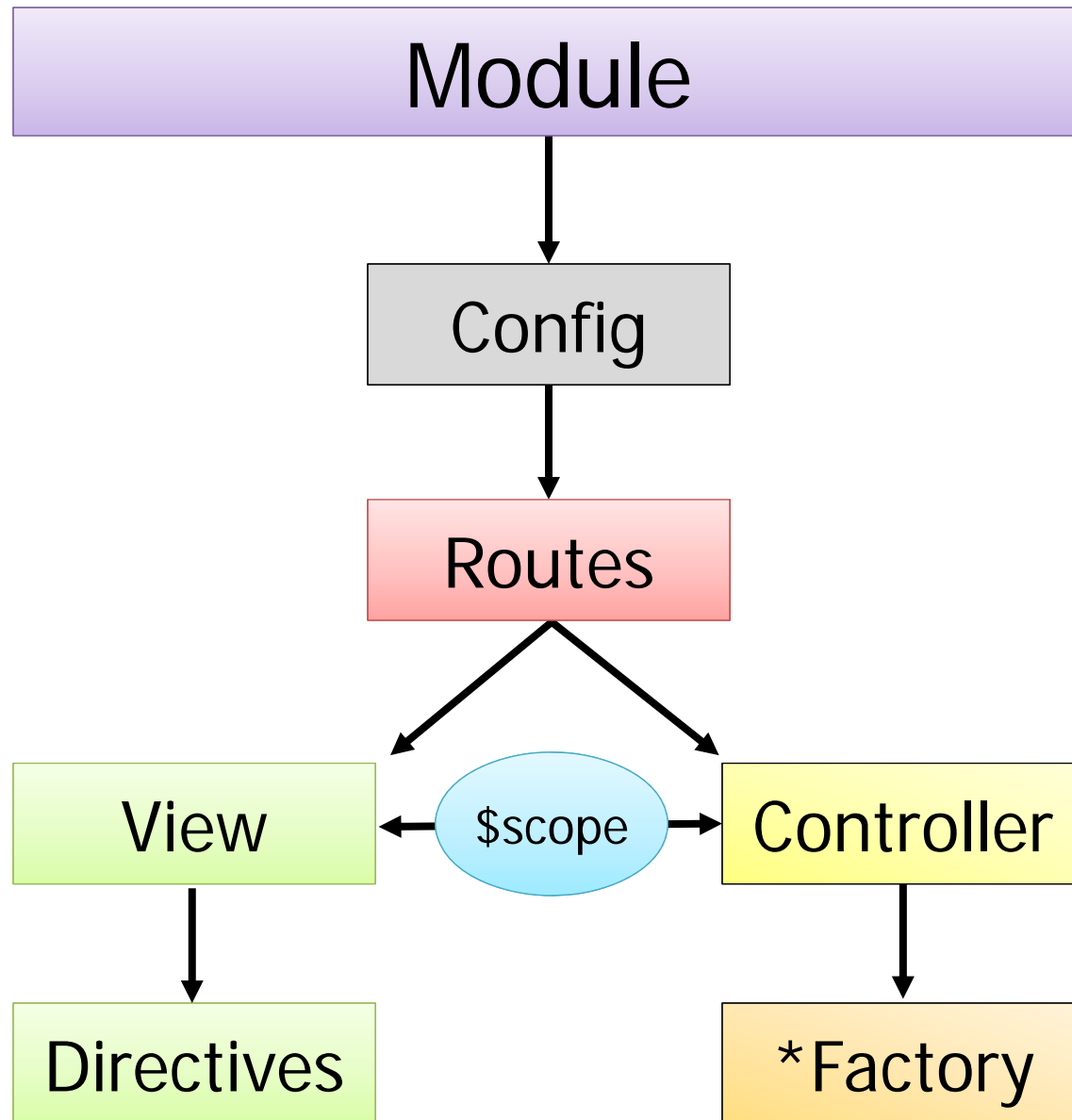
Data Binding Overview

Directives and Expressions

Iterating Over Data

Sorting and Formatting Data

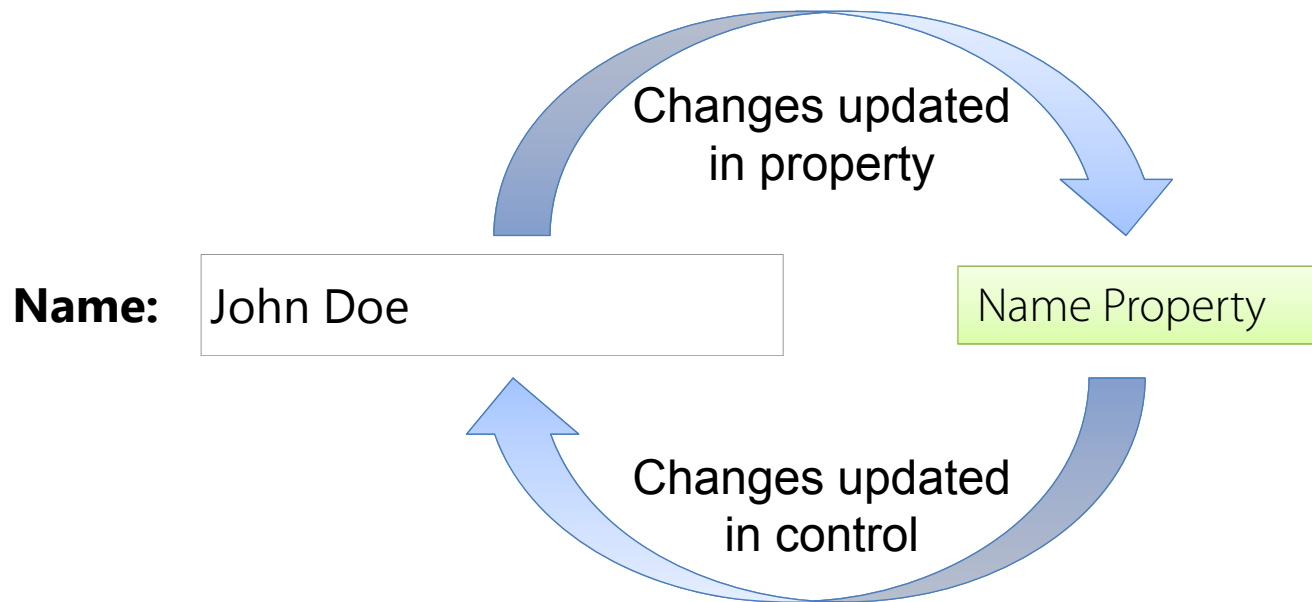
# The Big Picture



# Data Binding Overview

# Data Binding

- JavaScript doesn't provide native support for data binding
- Two-way data binding can lead to significant reductions in code



# **Control-Oriented versus Data-Oriented**

# Control-Oriented Development Workflow

**Name:**

1. Code assigns value to a textbox

```
document.getElementById('name').value = 'John Doe';
```

2. User modifies data

3. User clicks a button

4. Code pulls the value out of the textbox

```
var name = document.getElementById('name').value;
```

# Data-Oriented Development Workflow

**Name:**

1. Property is bound to a textbox

```
<input type="text" bindProperty="name" />
```

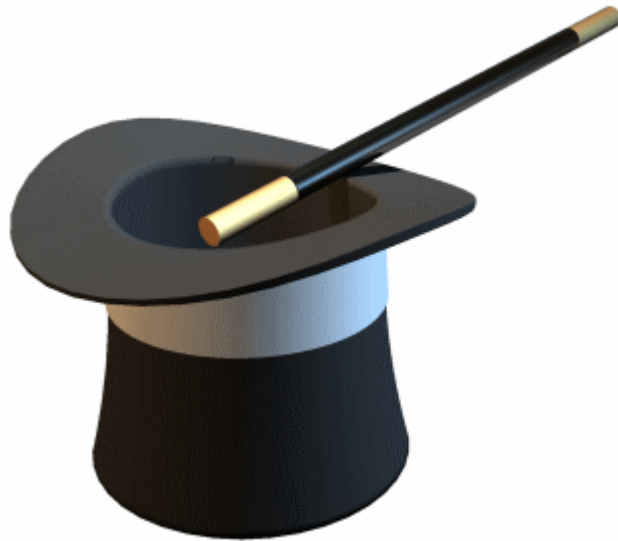
2. User modifies data
3. Property value is automatically updated!



# Directives and Expressions

# What are Directives?

Directives teach HTML new tricks!



# What can Directives Do?

DOM Manipulation

View Loading

Data Binding

CSS

Controllers/  
Modules

Events



# Examples of AngularJS Directives

## DOM Manipulation

**ng-hide**  
**ng-repeat**  
**ng-show**  
**ng-view**

## Modules/Controllers

**ng-app**  
**ng-controller**

## Data Binding

**ng-bind**  
**ng-init**  
**ng-model**

## Events

**ng-click**  
**ng-keypress**  
**ng-mouseenter**

# Defining Directives

- Directives can be defined multiple ways:

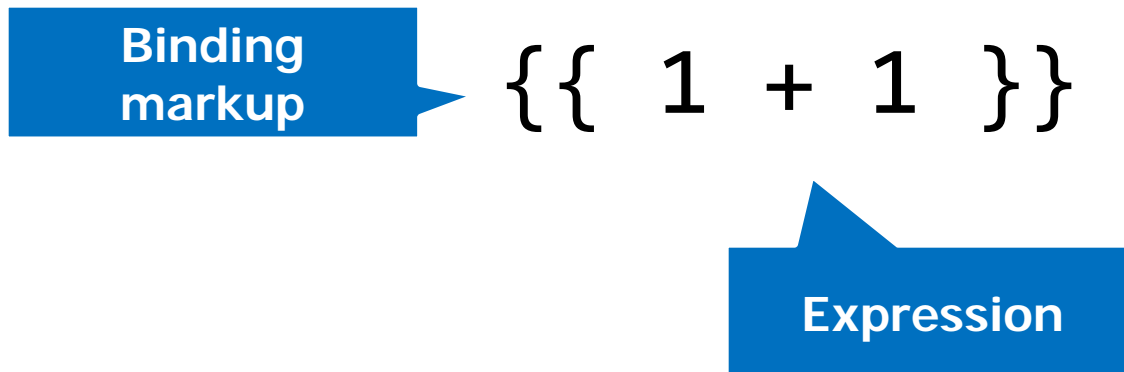
```
<div ng-hide="isHidden">
```

```
<div data-ng-hide="isHidden">
```

```
<ng-view></ng-view>
```

# AngularJS Expressions

Expressions are code snippets placed in binding markup:



# Iterating Over Data

# Iterating with the ng-repeat Directive

```
<html ng-app>
```

```
...
```

Provides initial data

```
<div ng-init="names=['Dave','Jeff','Heedy','Danny']">
```

```
<h3>Iterating through data with ng-repeat</h3>
```

```
<ul>
```

```
<li ng-repeat="name in names">{{ name }}</li>
```

```
</ul>
```

```
</div>
```

Iterate through  
names

```
...
```

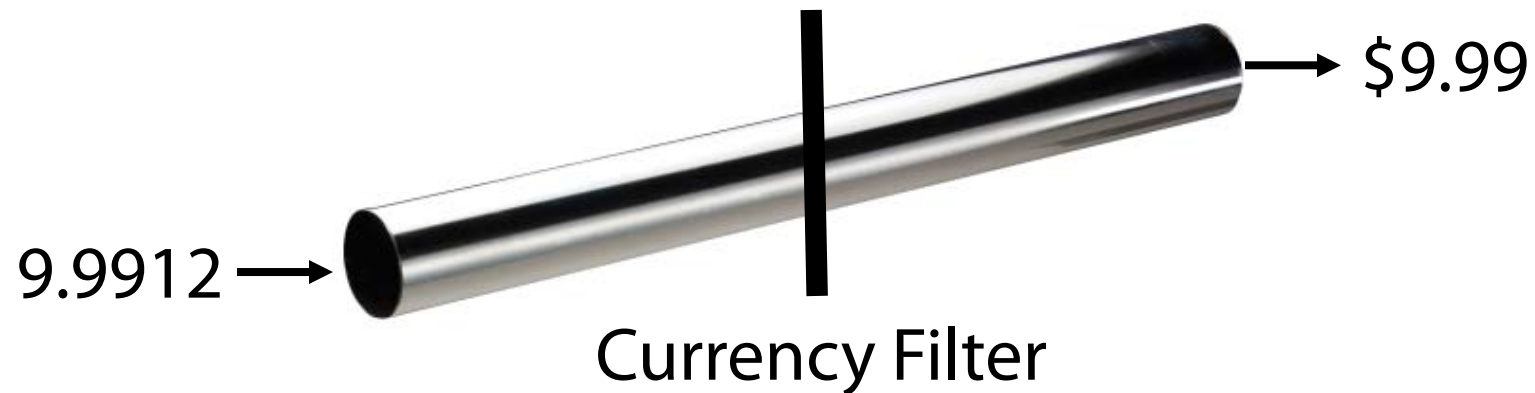
```
</html>
```



# Sorting and Formatting Data

## Filters and Pipes

- AngularJS can "pipe" data through filtering, formatting, and sorting functions
- Uses the | character



# Key AngularJS Filters

 **currency**

 **date**

 **filter**

 **json**

 **limitTo**

 **lowercase**

 **number**

 **orderBy**

 **uppercase**

# Sorting and Formatting Data

```
<ul>  
  <li data-ng-repeat="cust in customers | orderBy:'name'">  
    {{ cust.orderTotal | currency }}  
  </li>  
</ul>
```

Format as currency

Order customers by  
name property

# Filtering Data

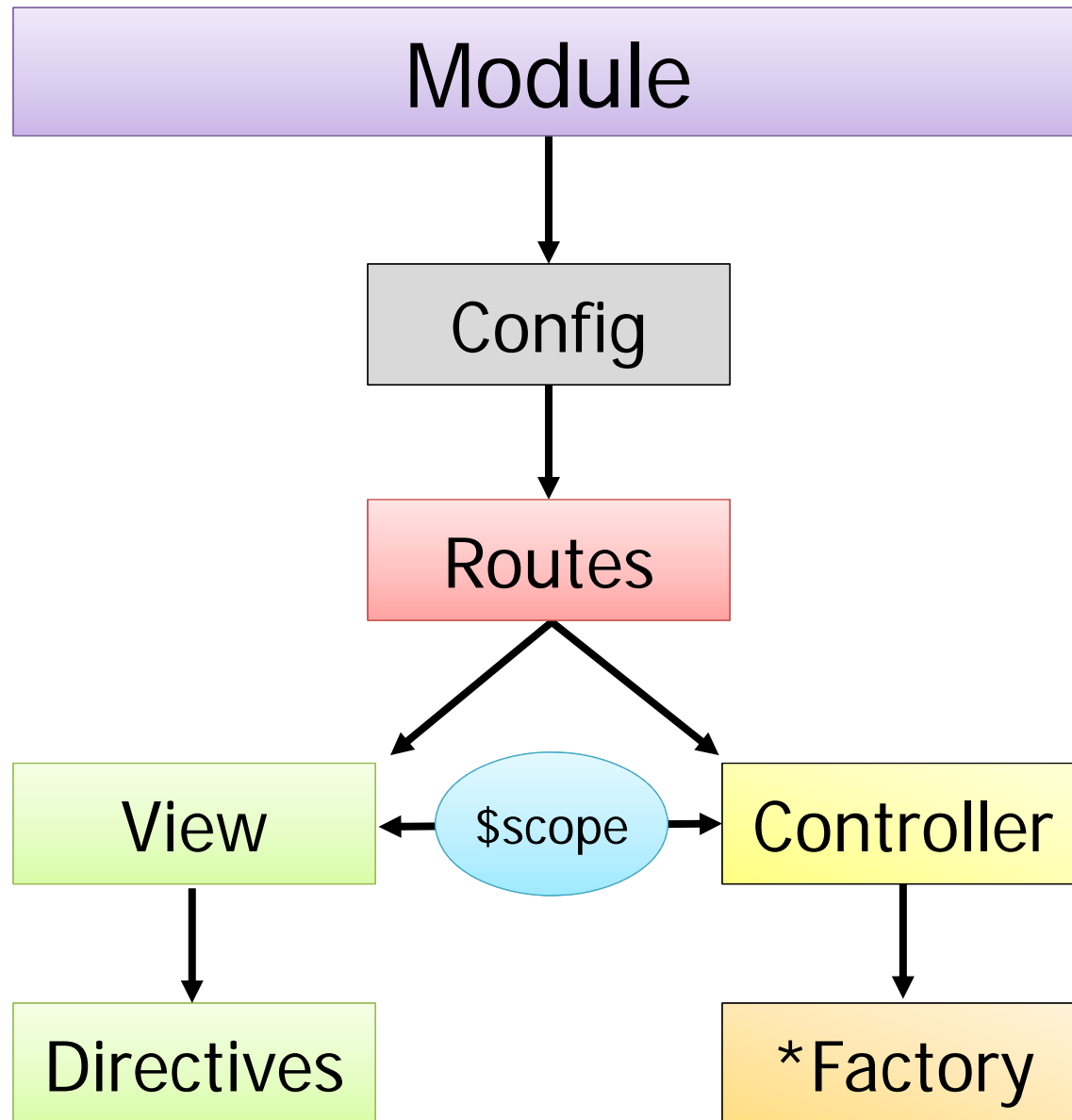
```
<input type="text" data-ng-model="nameText" />
<ul>
  <li data-ng-repeat="cust in customers | filter:nameText |
    orderBy:'name'">
    {{ cust.name }} - {{ cust.city }}</li>
</ul>
```



Filter customers by  
model value

# Summary

# The Big Picture



# Summary

- **Views handle UI functionality**
- **Directives enhance HTML:**
  - Manipulate the DOM
  - Used to reference model properties
  - Iterate over data and generate HTML
  - Much more..
- **Filters are used to format, sort, or filter data**