**Filters**

In AngularJS, a filter provides a way to format the data we display to the user. Angular gives us

Several built-in filters as well as an easy way to create our own.

Filter can be used in view templates, controllers or services and it is easy to define your own custom filter.

We invoke filters in our HTML with the **| (pipe)** character inside the template binding characters {{

}}.

Example:-

{{ Value goes here | Filter name goes here }}

**Build in filter in angularjs**

|  |  |
| --- | --- |
| **Name** | **Description** |
| [filter](https://docs.angularjs.org/api/ng/filter/filter) | Selects a subset of items from array and returns it as a new array. |
| [currency](https://docs.angularjs.org/api/ng/filter/currency) | Formats a number as a currency (ie $1,234.56). When no currency symbol is provided, default symbol for current locale is used. |
| [number](https://docs.angularjs.org/api/ng/filter/number) | Formats a number as text. |
| [date](https://docs.angularjs.org/api/ng/filter/date) | Formats date to a string based on the requested format. |
| [json](https://docs.angularjs.org/api/ng/filter/json) | Allows you to convert a JavaScript object into JSON string. |
| [lowercase](https://docs.angularjs.org/api/ng/filter/lowercase) | Converts string to lowercase. |
| [uppercase](https://docs.angularjs.org/api/ng/filter/uppercase) | Converts string to uppercase. |
| [limitTo](https://docs.angularjs.org/api/ng/filter/limitTo) | Creates a new array or string containing only a specified number of elements. The elements are taken from either the beginning or the end of the source array, string or number, as specified by the value and sign (positive or negative) of limit. If a number is used as input, it is converted to a string. |
| [orderBy](https://docs.angularjs.org/api/ng/filter/orderBy) | Orders a specified array by the expression predicate. It is ordered alphabetically for strings and numerically for numbers. Note: if you notice numbers are not being sorted correctly, make sure they are actually being saved as numbers and not strings. |

**external.js**

//defining module

var app = angular.module('IG', [])

app.controller('FirstController', ['$scope', function ($scope) {

$scope.customers = [

{

name: 'David',

street: '1234 Anywhere St.'

},

{

name: 'Tina',

street: '1800 Crest St.'

},

{

name: 'Brajesh',

street: 'Noida'

},

{

name: 'Michelle',

street: '890 Main St.'

}

];

} ])

**Index.html**

<!DOCTYPE html>

<html ng-app="IG">

<head lang="en">

<meta charset="UTF-8">

<title>Filter in AngularJS</title>

<script

src="https://ajax.googleapis.com/ajax/libs/angularjs/1.2.6/angular.js">

</script>

<script src="Scripts/external.js"></script>

</head>

<body>

<div ng-controller="FirstController">

<input type="text" ng-model="SearchData" />

<ul>

<li ng-repeat="Cust in customers | filter:SearchData | orderBy:'name' | limitTo:2">

{{Cust.name}} - {{Cust.street}}

</li>

</ul>

<p>Filter uppercase ::- {{ "I am Done" | uppercase }}</p>

<p>Filter lowercase ::- {{ "Are you Done with your Work" | lowercase }}</p>

<p>Filter currency ::- {{'8794'|currency}}</p>

<p>Filter format Number ::- {{'871234'|number}}</p>

</div>

</body>

</html>

For instance, let’s say we want to capitalize our string. We can either change all the characters

In a string to be capitalized, or we can use a filter.

We can also use filters from within JavaScript by using the $filter service.

For instance, to use the lowercase JavaScript filter:

app.controller('DemoController', ['$scope', '$filter',

function ($scope, $filter) {

$scope.name = $filter('lowercase')('Ari');

}]);

**Making Our Own Filter**

As we saw above, it’s really easy to create our own custom filter. To create a filter, we put it under

Its own module. Let’s create one together: a filter that capitalizes the first character of a string.

First, we need to create it in a module that we’ll require in our app (this step is good practice):

//defining module

var app = angular.module('IG', [])

//define filter

app.filter('capitalize', function () {

return function (input) { }

});

//define filter using service as a dependent

app.filter('ReverseData', function (data) {

return function (Message) {

return Message.split("").reverse().join("") + data.Message;

};

})

Filters are just functions to which we pass input. In the function above, we simply take the input as

the string on which we are calling the filter. We can do some error checking inside the function:

//defining module

var app = angular.module('IG', [])

//define filter

app.filter('capitalize', function () {

return function (input) {

// input will be the string we pass in

if (input)

return input[0].toUpperCase() + input.slice(1);

}

});

Now, if we want to capitalize the first letter of a sentence, we can first lowercase the entire string and then capitalize the first letter with our filter:

<!-- Ginger loves dog treats -->

{{ 'ginger loves dog treats' | lowercase | capitalize }}

Custom Filter Example

Index.html

<!DOCTYPE html>

<html ng-app="IG">

<head lang="en">

<meta charset="UTF-8">

<title>Custom Filter in AngularJS</title>

<script

src="https://ajax.googleapis.com/ajax/libs/angularjs/1.2.6/angular.js">

</script>

<script src="Scripts/external.js"></script>

</head>

<body>

<div ng-controller="FirstController">

<p>{{name}}</p>

<p>{{"i am brajesh" | LabelMessage}}</p>

<p>{{"i am brajesh" | ReverseData}}</p>

<p>

{{Amount | changevalue:25:3}}

</p>

</div>

</body>

</html>

external.js

//defining module

var app = angular.module('IG', [])

app.controller('FirstController', ['$scope','$filter', function ($scope,$filter) {

$scope.name = $filter('uppercase')('I am done with Controller filter');

$scope.Amount = 8000.78;

}

]);

//Filter used for welcome Message

app.filter('LabelMessage', function () {

return function (input) {

if (input)

return "Welcome "+ input[0].toUpperCase() + input.slice(1);

}

});

//Filter is used to reverse string data

app.filter('ReverseData', function () {

return function (Message) {

return Message.split("").reverse().join("");

};

})

//Pass multiple value into Custom Filter

app.filter('changevalue', function () {

return function (value, discount, DP) {

var Amount = value;

value = Amount \* discount / 100;

return value.toFixed(DP);

};

});