

# Week 3

 [coursera.org/learn/single-page-web-apps-with-angularjs/discussions/weeks/3/threads/2bmK4QtKEepAAp3RBDGpA](https://coursera.org/learn/single-page-web-apps-with-angularjs/discussions/weeks/3/threads/2bmK4QtKEepAAp3RBDGpA)

Always watch the lectures before reading these reviews. The lectures are richer in details and full of examples. The reviews are just reminders. Feel welcome to contribute or ask questions if you would like to do so.

## Review on Week 3 - Part 1:

1) A **promise** is an object that holds references to the outcome of asynchronous behavior. Its **.then** function is used to extract the results (first argument) or handle the error (second argument), and can be chained with another **.then()** because itself returns another promise.

2) The **\$q** service is the Angular implementation of Promise API and can resolve multiple promises asynchronously through the use of its **.all** method:

```
$q.all([promise1, promise2]).then( function(successResponse) {  
    ...  
}).catch( function(errorResponse) {  
    ...  
});
```

3) The **\$http** service, based on the promise exposed by **\$q**, takes one object parameter (which only requires the URL property) and returns a promise to be resolved with **.then** function. The **response.data** property holds the server data response (the response body or response payload):

```
$http({ url: "https://someUrl" }).then(function (successResponse) {  
    $scope.message = successResponse.data;  
}, function (errorResponse) {  
    console.log(errorResponse);  
});
```

Example:

```
(...)

var items = [];

service.getMatchedItems = function (searchTerm) {

    items = [];

    searchTerm = searchTerm.trim().toLowerCase();

    $http({url: ("https://someURL.com/items.json")})

    .then(function (response) {

        for ( var i = 0 ; i < response.data.items.length ; i++ ) {

            if ( ( response.data.items[i].name.toLowerCase().indexOf

                (searchTerm) !== -1 ) {

                items.push( response.data.items[i] );

            }

        }

    }).catch(function (error) {

        console.log("Error while retrieving the data.");

    });

    return items;

};

(...)
```

(note: if the original response.data is JSON, it's automatically converted into a JS object to be used in our code.)

4) Angular .module's special **.constant** function: defines a constant to be used for the duration of your application. For example, a base URL ("basePath") to be injected to functions and passed to different services:

```
angular.module("MyApp", [])

.constant('BasePath', "https://someUrl.com");

MyService.$inject = ['$http', 'BasePath']

function MyService($http, BasePath) {

    var service = this;

    service.getCategories = function() {

        return $http({ url: (BasePath + "/categories.json") });

    };

    service.getCategoryItems = function(categoryName) {

        return $http({ url: (BasePath + "/categoryItems.json"),

            params: {category: categoryName}

        });

    };

};

}
```