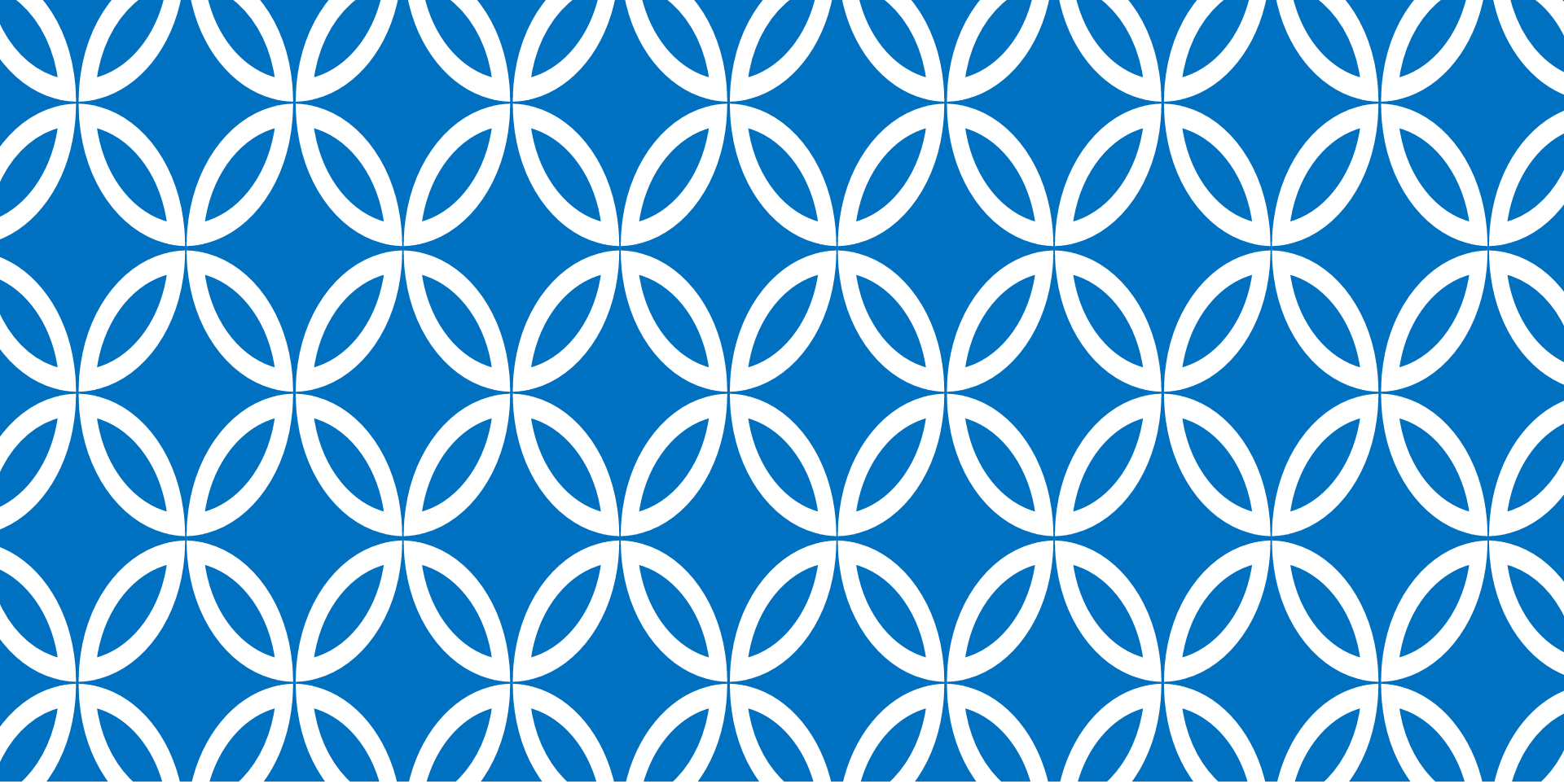
LEARN. DO. EARN

ACADGILD

FRONT END DEVELOPMENT (WITH ANGULARJS)

Website : http://www.acadgild.com
LinkedIn : https://www.linkedin.com/company/acadgild
Facebook : https://www.facebook.com/acadgild



Session 16 – AngularJS Service

Agenda – AngularJS Service

1. Introduction to AngularJS Service
2. AngularJS Service Types
3. Object - value
4. Function - factory
5. Object - service
6. provider
7. constant

Introduction to AngularJS Service

- In Angular a service is used to organize and share our code across application.
- It is the best place to put all our business logic.
- Service can be injected easily in another services or controller.

AngularJS Service Types

There are 5 different ways to create services in Angular:

1. Value
2. Factory
3. Service
4. Provider
5. Constant

Object - value

- **value** is simple JavaScript object.
- It is used to pass values to controller during config phase.

Example:

```
//define a module
var mainApp = angular.module("mainApp", []);
//create a value object as "defaultInput" and pass it a data.
mainApp.value("defaultInput", 5);
...
//inject the value in the controller using its name "defaultInput"
mainApp.controller('CalcController', function($scope, CalcService, defaultInput) {
    $scope.number = defaultInput;
    $scope.result = CalcService.square($scope.number);

    $scope.square = function() {
    $scope.result = CalcService.square($scope.number);
  }
});
```

Function - factory

- **factory** is a function which is used to return value.
- It creates value on demand whenever a service or controller requires.
- It normally uses a factory function to calculate and return the value

Example:

```
//define a module
var mainApp = angular.module("mainApp", []);
//create a factory "MathService" which provides a method multiply to return
//multiplication of two numbers
mainApp.factory('MathService', function() {
var factory = {};
factory.multiply = function(a, b) { return a * b }
 return factory; });
//inject the factory "MathService" in a service to utilize the multiply method of
factory.
mainApp.service('CalcService', function(MathService){
this.square = function(a) {
 return MathService.multiply(a,a); } });
```

Object - service

service is a singleton JavaScript object containing a set of functions to perform certain tasks.

Services are defined using **service()** functions and then injected into controllers.

```
//define a module
var mainApp = angular.module("mainApp", []);...

//create a service which defines a method square to return square of a number.
mainApp.service('CalcService', function(MathService){
this.square = function(a) {
return MathService.multiply(a,a);    }});

//inject the service "CalcService" into the controller
mainApp.controller('CalcController',    function($scope,    CalcService,    defaultInput)    {
$scope.number = defaultInput;
$scope.result = CalcService.square($scope.number);
 $scope.square = function() {
$scope.result = CalcService.square($scope.number);   }});
```

provider

- **provider** is used by AngularJS internally to create services, factory etc. during config phase(phase during which AngularJS bootstraps itself).
- Below mention script can be used to create MathService that we've created earlier. Provider is a special factory method with a method **get()** which is used to return the value/service/factory.

Example:

```
//define a module
var mainApp = angular.module("mainApp", []); ...
//create a service using provider which defines a method square to return square
//of a number.
mainApp.config(function($provide) {
$provide.provider('MathService', function() {
 this.$get = function() {
var factory = {}; factory.multiply = function(a, b) {
return a * b; }
return factory; }; }); });
```

constant

constants are used to pass values at config phase considering the fact that value can not be used to be passed during config phase.

Syntax:

```
mainApp.constant("configParam", "constant value");
```

Lets Discuss Assignments