**AngularJS:**

1. A client side JS framework
2. Developed and being maintained by Google
3. **Goals:**
   1. Separate DOM manipulation from appln logic
   2. Separation of concerns(M-data,V-view,C-API)
   3. Make SPA dev
   4. Provide solid foundation for robust JS client side appln
   5. Extensibility & Customization

**High Level Overview – Angular Process**

1. Angular.js is included and executed
2. Ang module gets created
3. **Finds Template**
   1. **Template – Html with some ang markup**
      1. **Ng-\* => attributes(directives)**
      2. **Evaluating expressions**
      3. **Data binding markuo etc.**
4. **Process Template**
   1. Compiles Template(HTML Compilers) for errors
   2. Load template in memory
   3. Transform template with data
      1. Databinding
      2. Evaluate expressions
5. **Renters to DOM tree(View)**

**Controllers:**

1. R JS objs which contain appln logic
2. Allows us to send/receive data bw DOM(View) and appln logic
3. Attached using ng-controller directive
4. Used to share the data for Views

DB🡺 Web Services 🡺 Module(Controllers…)[generate model]🡺 Markup(Views..)

**Scope:**

Send info from controller to view and vice versa

Intermediator

**Controller 🡸🡺 Scope 🡸🡺 View**

**Root Scope:**

Whenever we are adding <<ng-app>>,$rootscope will be automatically created.

1. Run will be executed once module is created.
2. Rootscope can be added for module(run) and any controller.

**DataBinding:**

1. Synchronize the data bw UI and business logic/Data/Model(View to controller and vice versa).
2. One way,Two way,One time

**One Way:**

1. Data flows from controller(scope) to view.
2. If any data modification happens, propagate and reflect that immediately to view
3. No propagation happens for view to scope.
4. Done using ng-bind or evaluation expressions

**Two way:**

1. Data flows from controller(scope) to view and vice versa.
2. If any data modification happens in controller, propagate and reflect that immediately to view
3. If any data modification happens in view, propagate and reflect that immediately to scope
4. Done using ng-model

**One-Time:**

1. View receives the result from scope only once that too at very beginning.
2. Data flows from scope to view only
3. No propagation will happen If any modification is occurring
4. Usually performed using :: as part of evaluation expression

**AJAX:**

1. Communication across browser and server withour a full page response
2. Usually achived through JS
3. User can still interact with UI,While the communication happens behind the scenes(Asynchronous)

Can show spinner while communication is in progress

1. The AJAX response can be JSON,XML or HTML
2. If response is HTML,We can replace existing elements/DOM with response
3. If the respond is JSON,We have to parse using JS and place it in respective place.

**CORS: (Cross Origin Resource Sharing)**

Before accessing other domains(domain2),U have to enable the cors.

AJAX:$http(used to establish network conn)

Ways to comm with server from Ang JS

1)$http from Ang JS

2)Jquery ajax($ajax,$get,$post)

Using any server side tech(WCF REST,ASP.NET Web API,Node.JS),get result(JSON/XML)

$http({

Options to connect to server,URL,Method(GET/POST),Headers

})

.then(

Function(resp){

//Success

},

Function(resp){

//failure

}

);