140IR5160 - AngularJS

UNIT 1 – Session 2

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Course Code/Title: 140IR5160 - Angular JS

➤ **Objective of the Course:**

   To make students understand web application architecture and its components and enable them to develop web pages and provide services based on requirements

➤ **Prerequisites:**

   Basic knowledge in web programming

➤ **Learning Outcomes:**

Students will be able to:

- Describe different methods for developing web pages: manually, scripted.
- Discuss the different components that are required for developing web based applications.
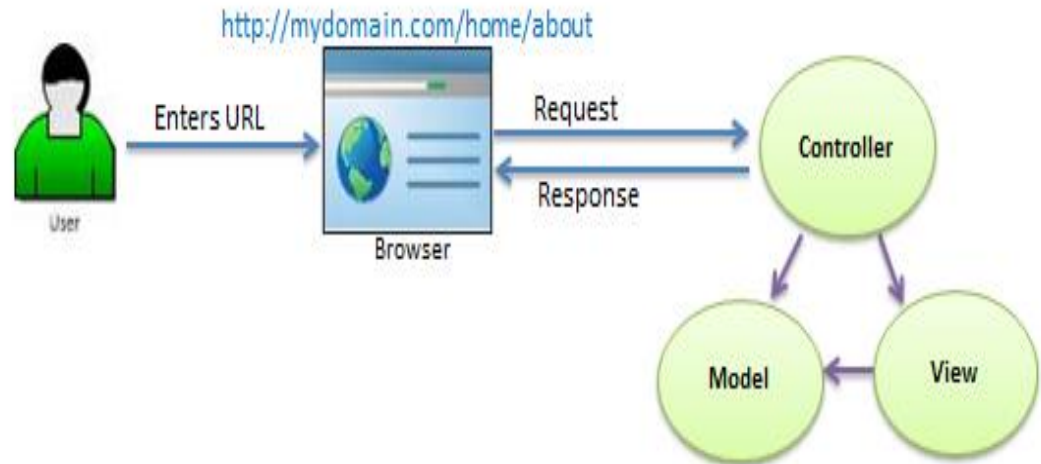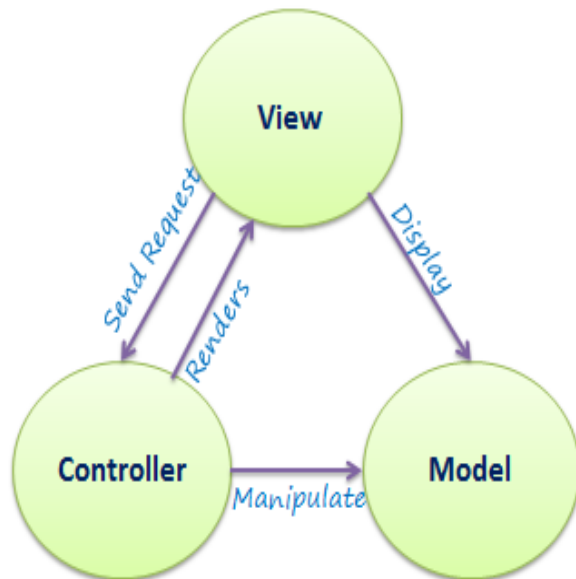
➤ **References:**

- Matt Frisbie "AngularJS Web Application Development Cookbook" Third Edition, Packt Publishing Ltd 2014.

➤ **Web References:**

- https://www.w3schools.com/angular/

AngularJS MVC Architecture

- MVC consists of

    - **Model** - responsible for maintaining application data and business logic.

    - **View** - The HTML page seen in the browser

    - **Controller** - handles user's requests and renders appropriate View with Model data.

What is MVC?

- **Model:** Model represents shape of the data and business logic. It maintains the data of the application. Model objects retrieve and store model state in a database.

<center>Model is a data and business logic.</center>

- **View:** View is a user interface. View display data using model to the user and also enables them to modify the data.

<center>View is a User Interface.</center>

- **Controller:** Controller handles the user request. Typically, user interact with View, which in-tern raises appropriate URL request, this request will be handled by a controller. The controller renders the appropriate view with the model data as a response.

<center>Controller is a request handler.</center>

Parts of AngularJS

➢ HTML Templates with Directives

- Directives - new HTML syntax for elements, Attributes, styles and comments

➢ Application Logic in Javascript

- Controllers - event processing and model updates

- Dependency Injection of Javascript modules

➢ Data Binding - Two way

- View to Model

- Model to View

Hello Angular

➢ Demo

Hello Angular Code

```html
<html>
        <head>
                <meta charset="utf-8">
                <title>Hello Angular</title>
        </head>
        <div ng-app="">
                <p>Enter something in the input box:</p>
                <p>Name : <input type="text" ng-model="who" placeholder="Enter name here"></p>
                <h1>Hello {{who}}</h1>
        </div>
        <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.0/angular.min.js">
        </script>

</html>
```

Hello Angular Part

➤ Insert the AngularJS script file

  <script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.0/angular.min.js">

➤ Directives

- ng-app : To indicate the Angular app

- ng-model : Specify a model (data) with a name (who)

➤ Template

- {{who}} : handle-bar style replace the model(data) here

➤ No controller or application logic here

➤ Angular manages the 2 way data binding

- From textbox to model variable "who"

- And from variable to the template in the view

Thank you