MALAD KANDIVALI EDUCATION SOCIETY'S

NAGINDAS KHANDWALA COLLEGE OF COMMERCE, ARTS & MANAGEMENT STUDIES & SHANTABEN NAGINDAS KHANDWALA COLLEGE OF SCIENCE
MALAD [W], MUMBAI – 64
AUTONOMOUS INSTITUTION
(Affiliated To University Of Mumbai)
Reaccredited 'A' Grade by NAAC | ISO 9001:2015 Certified

<u>CERTIFICATE</u>

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Roll No: <u>398</u>   Programme: BSc IT/CS   Semester: III

This is certified to be a bonafide record of practical works done by the above student in the

college laboratory for the course **Hybrid Application Development (classcode: 2037UCSMD)** for the partial fulfilment of Third Semester of BSc IT/CS during the

academic year 2020-21.

The journal work is the original study work that has been duly approved in the year 2020-21

by the undersigned.

_____   _____

External Examiner   Mr. Gangashankar Singh
                                     (Subject-In-Charge)

Date of Examination: (College Stamp)

Class: S.Y. B.Sc. IT Sem- III   Roll No: 398
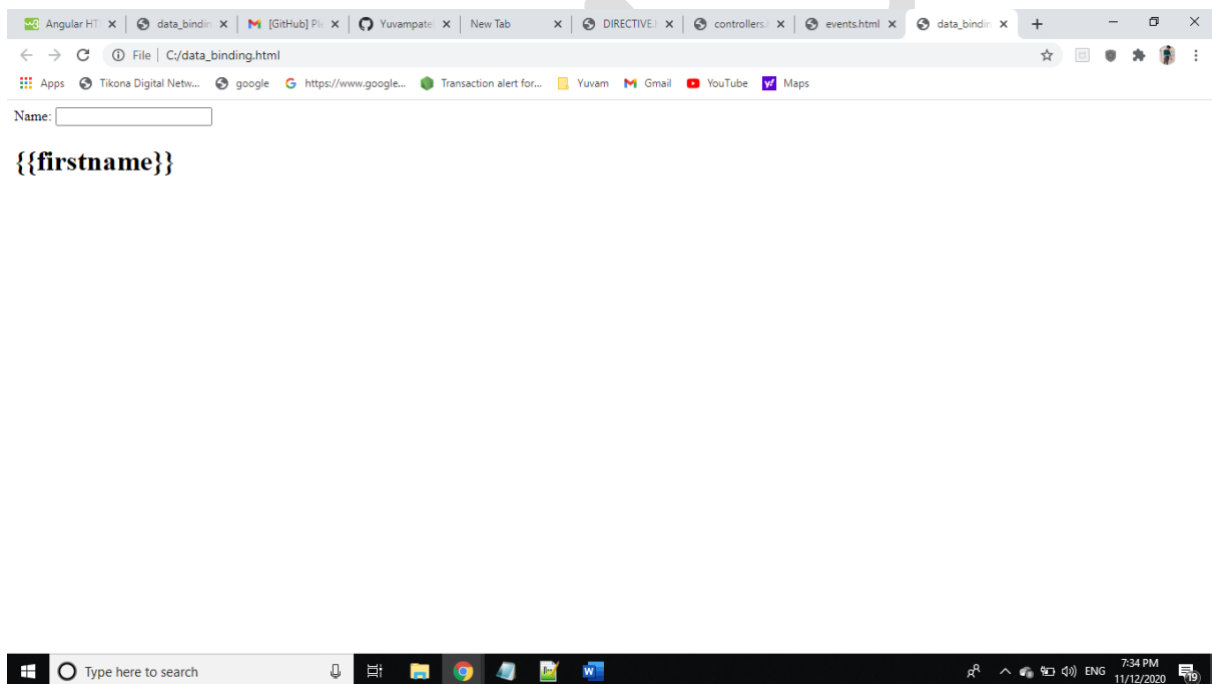
Subject: Hybrid Application Development

INDEX

Sr. No	Date	Topic	Sign
1	27/07/2020	AngularJS Data Binding	
2	7/08/2020	AngularJS Directives	
3	14/08/2020	AngularJS Controllers	
4	25/08/2020	AngularJS Events	
5	08/09/2020	Ionic Create and Build First Project	
6	12/09/2020	Ionic Adding Cordova Android Platform	
7	19/09/2020	Ionic Create, Generate and Add Pages	
8	29/09/2020	Ionic Use Tabs Starter Template	

1-DATA BINDING

➢ *Data-binding in AngularJS apps is the automatic synchronization of data between the model and view components.*

➢ *The way that AngularJS implements data-binding lets you treat the model as the single-source-of-truth in your application.*

➢ *The view is a projection of the model at all times. When the model changes, the view reflects the change, and vice versa.*
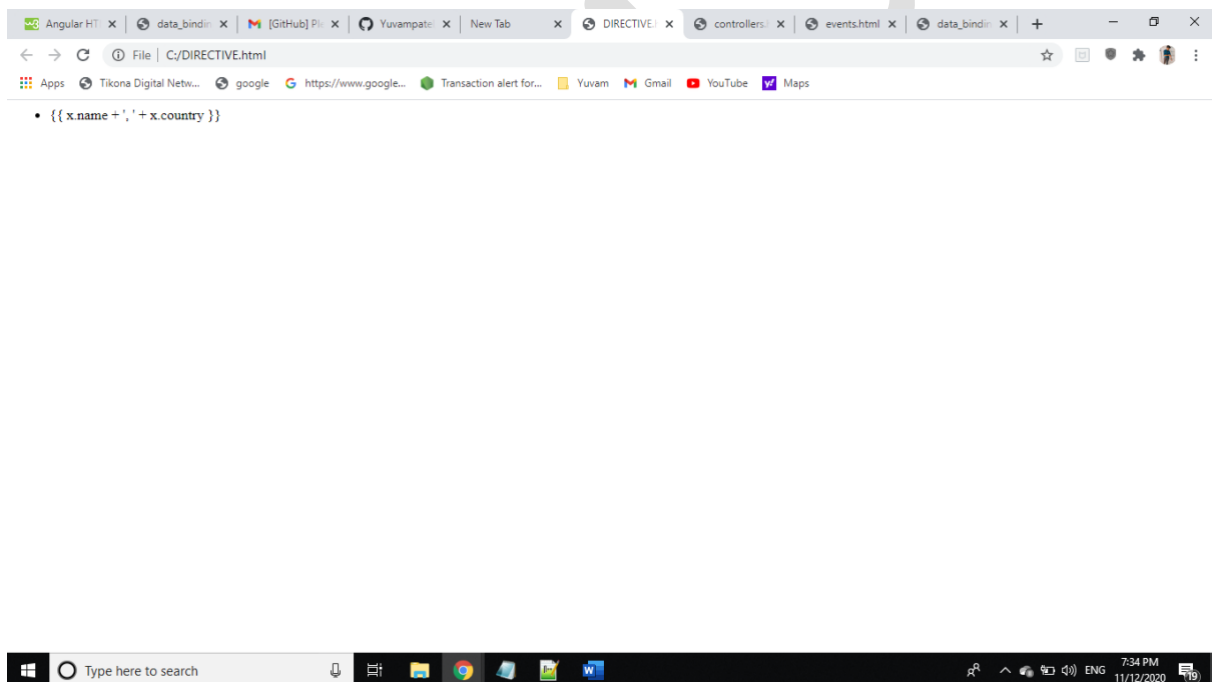
OUTPUT:

Name:

{{firstname}}

2-ANGULARJS DIRECTIVES

➢ *AngularJS comes with a set of these directives built-in, like ngBind, ngModel, and ngClass. Much like you create controllers and services, you can create your own directives for AngularJS to use.*

➢ *When AngularJS bootstraps your application, the HTML compiler traverses the DOM matching directives against the DOM elements.*
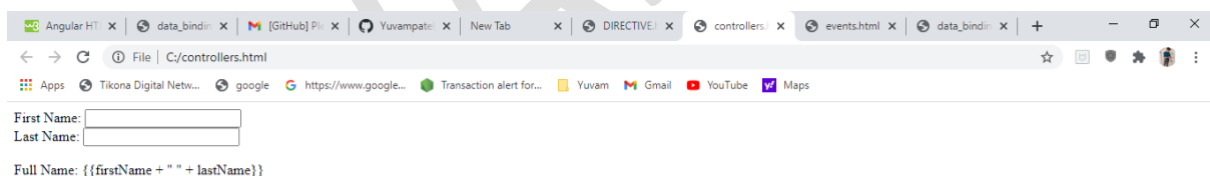
OUTPUT:

• {{ x.name + ', ' + x.country }}

3-ANGULARJS CONTROLLERS

➢ In AngularJS, a Controller is defined by a JavaScript **constructor function** that is used to augment the AngularJS Scope.

➢ Controllers can be attached to the DOM in different ways. For each of them, AngularJS will instantiate a new Controller object, using the specified Controller's constructor function:

a) The ngController directive. A new child scope will be created and made available as an injectable parameter to the Controller's constructor function as $scope.

b) A route controller in a $route definition.

c) The controller of a regular directive, or a component directive.

OUTPUT:

4-ANGULARJS EVENTS

➢ AngularJS includes certain directives which can be used to provide custom behavior on various DOM events, such as click, dblclick, mouseenter etc.

➢ You can add AngularJS event listeners to your HTML elements by using one or more of these directives:

- ng-blur
- ng-change
- ng-click
- ng-dblclick
- ng-focus
- ng-keydown
- ng-keyup
- ng-keypress
- ng-mousedown
- ng-mouseenter
- ng-mouseleave
- ng-mousemove
- ng-mouseover
- ng-mouseup

Result Size: 668 x 508

Mouse Over Me!

4

5-IONIC CREATE AND BUILD FIRST PROJEC

How to create and ionic web app:

The requirement for creating an Ionic web app is:

Node Js

NPM

Run the below commands in the command prompt or terminal

Steps for creating Ionic Web app:

1. Install ionic using npm install -g ionic

2. Get ionic info using ionic info

3. To create an ionic app type ionic start <app name>

4. Then it will ask to choose a framework if you want to make it in angular   choose angular

5. Then to start running the ionic web page in the server type ionic serve.

6. To access the web page go on http://localhost:8100

OUTPUT:


```
Windows PowerShell                                                          —    □    ×

Microsoft Windows [Version 10.0.19041.508]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\simra>cd hello_world

C:\Users\simra\hello_world>ionic serve
> ng.cmd run app:serve --host=localhost --port=8100
[ng] chunk {} 0.js, 0.js.map () 31.2 kB  [rendered]
[ng] WARNING in C:\Users\simra\hello_world\src\test.ts is part of the TypeScript compilation but it's unused.
[ng] Add only entry points to the 'files' or 'include' properties in your tsconfig.
[ng] WARNING in C:\Users\simra\hello_world\src\environments\environment.prod.ts is part of the TypeScript compilation bu
t it's unused.
[ng] Add only entry points to the 'files' or 'include' properties in your tsconfig.
[ng] chunk {common} common.js, common.js.map (common) 14.7 kB  [rendered]
[ng] chunk {focus-visible-15ada7f7-js} focus-visible-15ada7f7-js.js, focus-visible-15ada7f7-js.js.map (focus-visible-15a
da7f7-js) 2.11 kB  [rendered]
[ng] chunk {home-home-module} home-home-module.js, home-home-module.js.map (home-home-module) 7.8 kB  [rendered]
[ng] chunk {input-shims-4f0dbb39-js} input-shims-4f0dbb39-js.js, input-shims-4f0dbb39-js.js.map (input-shims-4f0dbb39-js
) 16.3 kB  [rendered]
[ng] chunk {keyboard-dd970efc-js} keyboard-dd970efc-js.js, keyboard-dd970efc-js.js.map (keyboard-dd970efc-js) 6.16 kB  [
rendered]
[ng] chunk {main} main.js, main.js.map (main) 19.7 kB [initial] [rendered]
[ng] chunk {polyfills} polyfills.js, polyfills.js.map (polyfills) 268 kB [initial] [rendered]
[ng] chunk {polyfills-core-js} polyfills-core-js.js, polyfills-core-js.js.map (polyfills-core-js) 92.4 kB  [rendered]
[ng] chunk {polyfills-css-shim} polyfills-css-shim.js, polyfills-css-shim.js.map (polyfills-css-shim) 10.5 kB  [rendered
]
[ng] chunk {polyfills-dom} polyfills-dom.js, polyfills-dom.js.map (polyfills-dom) 38.5 kB  [rendered]
[ng] chunk {runtime} runtime.js, runtime.js.map (runtime) 9.53 kB [entry] [rendered]
[ng] chunk {shadow-css-c63963b5-js} shadow-css-c63963b5-js.js, shadow-css-c63963b5-js.js.map (shadow-css-c63963b5-js) 15
.9 kB  [rendered]
```


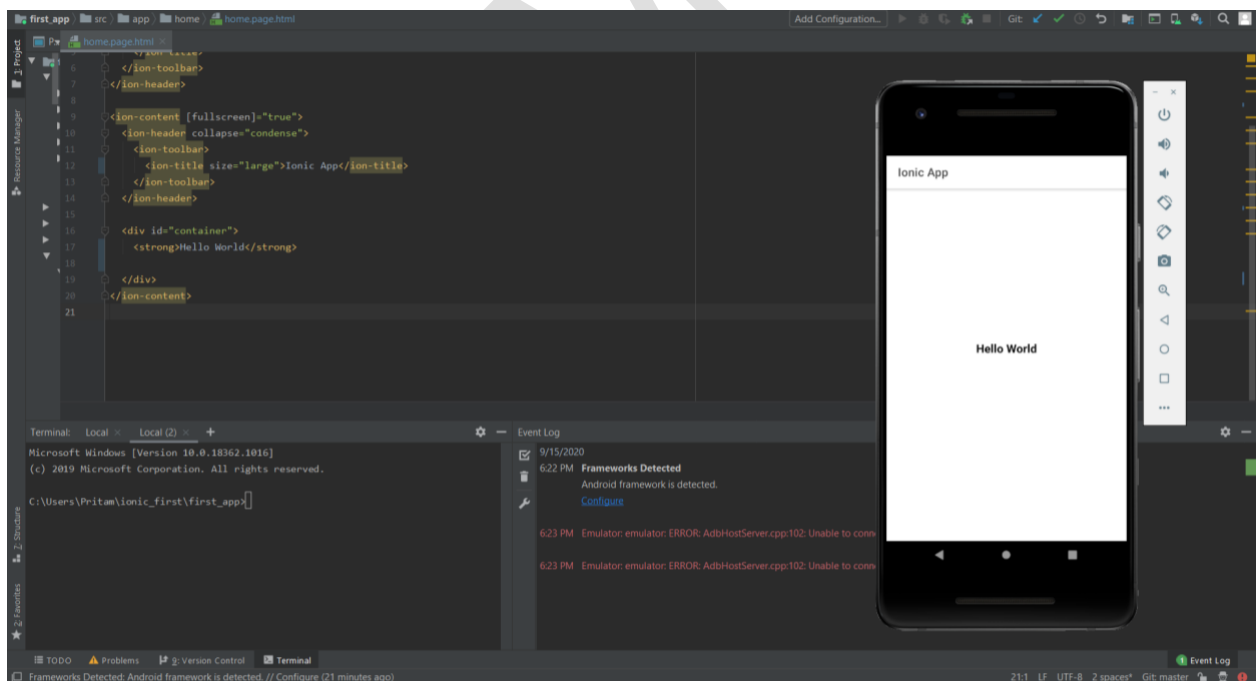← → C ⌂ ⓘ localhost:8100/home

Ionic Project

Hello World

6-IONIC ADDING CORDOVA ANDROID PLATFORM

How to create and Ionic Android app:

Steps to create an ionic android app:

1. After you have built the web app next command you should type is ionic cordova platform add android .This will add and android platform to your web app directory.

2. Now type ionic cordova build android to start building your android app.

3. Now type ionic cordova run android , If you have connect your machine to a phone and turned on USB debugging the app will export to your pc and if you are running an emulator the out will be like this.

OUTPUT:

7-IONIC CREATE, GENERATE AND ADD PAGES

- Ionic generate uses the Angular CLI to generate features such as pages, components, directives, services, etc.

- For a full list of available types, use npx ng g --help
- For a list of options for a types, use npx ng g <type> --help

You can specify a path to nest your feature within any number of subdirectories. For example, specify a name of "pages/New Page" to generate page files at src/app/pages/new-page/.

OUTPUT:

```
C:\Users\Smit\helloworld>ionic generate page contact
> ng.cmd generate page contact
CREATE src/app/contact/contact-routing.module.ts (351 bytes)
CREATE src/app/contact/contact.module.ts (479 bytes)
CREATE src/app/contact/contact.page.html (126 bytes)
CREATE src/app/contact/contact.page.spec.ts (654 bytes)
CREATE src/app/contact/contact.page.ts (260 bytes)
CREATE src/app/contact/contact.page.scss (0 bytes)
UPDATE src/app/app-routing.module.ts (616 bytes)
[OK] Generated page!

C:\Users\Smit\helloworld>ionic generate component contact
> ng.cmd generate component contact
CREATE src/app/contact/contact.component.html (26 bytes)
CREATE src/app/contact/contact.component.spec.ts (689 bytes)
CREATE src/app/contact/contact.component.ts (272 bytes)
CREATE src/app/contact/contact.component.scss (0 bytes)
[OK] Generated component!

C:\Users\Smit\helloworld>
```

8-IONIC USE TABS STARTER TEMPLATE

To start a new app, open your **terminal/command prompt** and run:

```
ionic start MyIonicProject tabs --type=ionic-angular
```

- `start` will tell the CLI create a new app.
- `MyIonicProject` will be the directory name and the app name from your project.
- `tabs` will be the starter template for your project.

OUTPUT: