

Integrated Mobile Applications Development

Lab 3 Services

NOTES

- When creating an Ionic App for each of the questions in this lab use:
`ionic start appName blank`
- Controllers should be in controllers.js, not app.js. To do this do the following:
 - If your app is called starter (`angular.module('starter',)`) then the first line of controllers.js should be something like:
`angular.module('starter.controllers', [])`
 - Now you can write your Controller as normal in controllers.js e.g.
`angular.module('starter.controllers', [])
 .controller('shoppingListCtrl', function($scope) {`
 - Inject the dependency you created in controllers.js (`'starter.controllers'`) into app.js as follows:
`angular.module('starter', ['ionic',
 'starter.controllers'])`
 - Add controllers.js to index.html as follows:
`<script src="js/controllers.js"></script>`

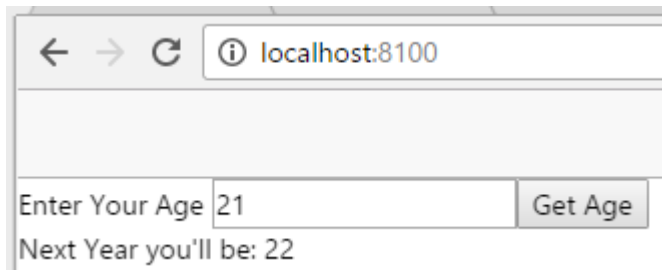
- Services should be in services.js, not app.js. To do this do the following:
 - If your app is called starter (`angular.module('starter',)`) then the first line of services.js should be something like:
`angular.module('starter.services', [])`
 - Now you can write your Service as normal in services.js e.g.
`angular.module('starter.services', [])
.service('ageService', function() {`
 - Inject the dependency you created in services.js (`'starter.controllers'`) into app.js as follows:
`angular.module('starter', ['ionic',
'starter.Controllers', 'starter.services'])`
 - Inject the Service you created in services.js (`'ageService'`) into any Controller that will be using the service as follows:
`.controller('MainController', function($scope,
ageService) {`
 - Add services.js to index.html as follows:
`<script src="js/services.js"></script>`

Part 1 - Services

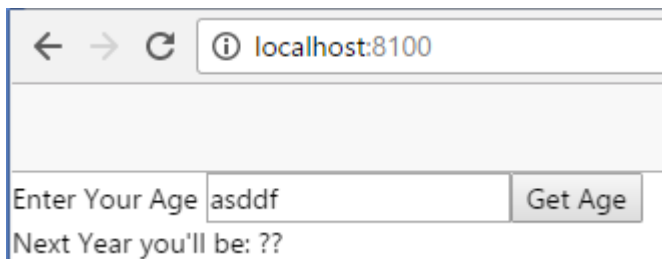
1. Write an Ionic Application that asks a user to enter his/her age and has a button that when pressed, will show his/her age next year.

If the age entered is invalid (less than 0, or not a valid integer) the age next year should be shown as '??'

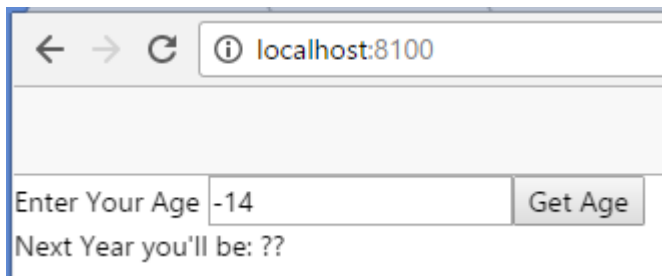
The application should use a Service to calculate the age next year.



A screenshot of a web browser window at localhost:8100. The page has a header with navigation icons and the address bar. Below the header is a large empty box. The main content area contains the text "Enter Your Age" followed by an input field containing the number "21". To the right of the input field is a button labeled "Get Age". Below the input field, the text "Next Year you'll be: 22" is displayed.



A screenshot of the same web browser window. The input field now contains the text "asddf". After clicking the "Get Age" button, the text below the input field has changed to "Next Year you'll be: ??".



A screenshot of the same web browser window. The input field now contains the number "-14". After clicking the "Get Age" button, the text below the input field has changed to "Next Year you'll be: ??".

2. Write an Ionic Application consisting of a Controller called StudentController that has only one \$scope variable called students.

The StudentController should use the Object Constructor method to create four new students which have the following properties:

	Name	Address	DOB
Student 1	Tom	Galway	November 19 th 1995
Student 2	John	Tuam	August 11 th 1996
Student 3	Mary	Ballinasloe	September 1 st 1995
Student 4	Fred	Athenry	August 11 th 1994

Another Controller called GMITController should have only one \$scope variable called GMIT which is an Object (defined using the Object Literal Notation) with the following properties:

	Name	Address	Founded
GMIT	Galway-Mayo Institute of Technology	Galway, Letterfrack, Mountbellew, Castlebar	September 18 th 1972

In the View the Students Details should be displayed under the following headings using a [grid](#):

- Name
- Address
- DOB
- Age

A separate div element should display details of GMIT as shown, including its age.

The Age should be calculated in a Service called AgeService which returns the current age of whatever is passed to it and both the StudentController and the GMITController should use this service to calculate respective ages.

Students

Name	Address	DOB	Age
Tom	Galway	Nov 19, 1995	21
John	Tuam	Aug 11, 1996	20
Mary	Ballinasloe	Sep 1, 1995	21
Fred	Athenry	Aug 11, 1994	22

GMIT

Name: Galway-Mayo Institute of Technology
Address: Galway, Letterfrack, Mountbellew, Castlebar
Founded: September 1972
Age: 44

3. Write an Ionic Application that uses a Service to get a list of U.S. presidents from the following site: <https://api.myjson.com/bins/po22>.

The details should be displayed as follows:



The screenshot shows a web browser window with the address bar displaying 'localhost:8100'. The page title is 'Services Exercise 3 - Presidents'. Below the title is a table with five columns: President, Party, Start of Presidency, End of Presidency, and Vice President. The table contains five rows of data for different U.S. Presidents.

President	Party	Start of Presidency	End of Presidency	Vice President
Barack Obama	DEM	20 Jan 2009	20 Jan 2017	Joe Biden
George W. Bush	REP	20 Jan 2001	20 Jan 2009	Dick Cheney
Bill Clinton	DEM	20 Jan 1993	20 Jan 2001	Al Gore
George H. W. Bush	REP	20 Jan 1989	20 Jan 1993	Dan Quayle
Ronald Reagan	REP	20 Jan 1981	20 Jan 1989	George H. W. Bush

For the purpose of the portfolio I have reworked the lab to work in a browser without the need for you to install Ionic.