Digital Lync

EDUCATION - INNOVATION - INCUBATION

FULL STACK DEVELOPMENT

www.digital-lync.com

COURSE CURRICULUM

✓ Module 1 : HTML (5 hours)

Introduction to HTML

HTML Elements in Context

Creating HTML Documents

Marking Up Text

Grouping Content

Creating Sections

Table Elements

Working with Forms

Customizing the Input Element

Other Form Elements and

Input Validation

Embedding Content

✓ Module 2 : HTML 5

Working with Multimedia

Using the Canvas Element – Part I

Using the Canvas Element – Part II

Using Drag & Drop

Using Geolocation

Using Web Storage

`Creating Offline Web Applications

Module 3 : CSS (5 hours)

Cascading Style Sheets

CSS in Context

Using the CSS Selectors–Part I

Using the CSS Selectors–Part II

Using Borders and Backgrounds

Working with Text

Working with the Box Model

Margin

Padding

Border

Creating Layouts

Styling Text

Web fonts and external fonts

Module 4 : CSS 3

Working with Multimedia

Using the Canvas Element - Part I

Using the Canvas Element - Part II

Using Drag & Drop

Using Geolocation

Using Web Storage

Creating Offline Web Applications

Module 5 : JAVASCRIPT

- Introduction to javascript
- Javascript syntax.
- Javascript operators.
- Javascript statements.
- Anonymous Function, Callback Function &amp; Self Executable Function.
- JavaScript Objects
- String Object and Functions
- String Object and Functions.
- Number Object and Functions.
- Math Object and Functions.
- Date Functions.
- Array Functions and Property.
- JavaScript Error Handling
- DOM
  - Working with the Document Object
  - Working with the Window Object
  - Working with DOM Elements
  - Styling DOM Elements
- Using the Element-Specific Objects
- JavaScript Object Oriented Concepts.
- Using Ajax.
- JSON

ANGULAR JS

Module 6: Getting started with type script(2 hours)

Installing TypeScript

Compiling the code

Building a simple demo using hello world.

Module 7 : Understanding classes(2 hours)

Building a class

Adding properties

Demo of using classes in typescript

Module 8 : Understanding inheritance and interfaces

What is Inheritance

How to inherit the classes

Understanding interfaces

Module 9 : Working on modules(2 hours)

What are Modules in Typescript

When to use modules

Demo on building modules.

Module 10 : Generics

What are Modules in Typescript

When to use generics

Demo on working with generics.

Module 11 : Introduction to angular JS

What is AngularJS 2

Working with our build tool

Setting up out template

Module 12 : Introduction to basics

Creating a simple component

Using multiple modules

Understanding template types

Displaying data in our templates

Working with events

Using properties

Using two-way data binding

Adding CSS to our component

Module 13 : Architecture Overview

Components, Bootstrap, and the DOM

Directives and pipes

Data binding

Dependency injection

Services and other business logic

Data persistence

Module 14 : Creating a basic module

Using more complex data

Creating a subcomponent

Using multiple subcomponents

Cleaning up components

Filtering content through data pipes

Module 15 : Components

Component metadata

The component selector

The component template

Styling a component

Using other components in a component

Interpolation and the expression context

Property binding

Event binding

Getting data to the component with input

Subscribing to component events with output

Module 16 : Directives and Pipes

Structural directives–ng-if

Structural directives–ng-for

Attribute directives–built in

Attribute directives–custom

Using directive values

Working with events in directives

Angular pipes–built in

Module 17 : Forms

Angular forms

Template-driven forms

Model-driven forms

Validation--built in

Validation–custom

Error handling

Module 18 : Dependency injection and services

How Angular does dependency injection

Services in angular

Class constructor injection

Building a service

Provider registration at bootstrap

The inject decorator

The opaque token

Module 19 : HTTP

The angular 2 HTTP bundle

Using a mock backend for HTTP calls

Using HTTP for GET calls

Using Url Search Params

Using HTTP for POST, PUT and DELETE calls

Module 20 : Routing

Route configuration

Router outlets

Router

Using the router class to navigate

Module 21: Hackathon

CGI has entered into the e-commerce domain. We need to build an application where the users can display the list of products available.

Users can upload the products to the site. (Backend will be available to take the data.)

Product can be searched based on price, type and category. Users can also register for the site. We need to build a registration and login functionality for the site.

Application should have proper validations

NODE JS

Module 22 : Introduction to Node JS (10 hours)

Creating first Node JS app

Understanding NPM

Creating and locating Modules

Specifying dependencies with package. json

Understanding Events and Streems

Module 23 : Build App with Node and Express with MVC Architecture(7Hrs)

Creating a simple HTTP server

Understanding and installing Express JS

Creating a basic Express JS app

Understanding Routing in Express JS.

Connecting to Mongoose

Working with Mongodb

CRUD Operations

Search Operations

Working with Mongodb in Nodejs

Understanding Mongoose

Securing passwords and SSN by encryption.

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GACHIBOWLI | KUKATPALLY | SR NAGAR | GUNTUR

Module 24: Express js with middleware (8 Hours)

Error Handling by using logger

Handling sessions

Ejs templating engine.

Working with public and private content.

Passport Authentication

Local

Google

Facebook

Using parameterized routes

Rending view using Express JS

Session Handling

Working with Multer

Working with Morgan

Module 26 : Events and Streams

Understanding streams

Readable and Writable streams

Piping streams

Understanding Events

Demonstration of using Events

Module 27 : Sockets IO

Understanding Socket.IO

Creating a basic Socket.IO app

Creating a simple chat application using Socket.IO

Node Js best pratices

Challenges with Node Js.

Deployment scenarios