



IDM TECHPARK
GUIDE'S FOR PERFECT CAREER PATHWAY



Angular js Course Syllabus



N.S.D.C.
National
Skill Development
Corporation



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About Us

IDMTECHPARK global retail & corporate training solutions provider in Coimbatore, Erode, Trichy & Salem that offers a comprehensive range of training and placement services for both fresher's and professionals seeking new opportunities. The company commenced its IT training business in 2016. A pioneer in IT education, over the years, we have trained over 50k students. Idmtechpark has a wide range of courses, maintains education standards & provides placement assistance.

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About IDMTECHpark Education Quality

IDMTECHPARK is managed and developed by industry specialists with more than 8 years of expertise in the field. IDMTECHPARK offers a staff of highly skilled professional trainers who deliver effective IT training in a friendly setting, concentrating on the needs of each individual to help them succeed in a demanding work world. In the book of career and success, our staff never leaves a page unturned.

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IDMTECHPARK's versatile instructor-led training class rooms and lower-class sizes enable people to engage more easily and absorb knowledge, resulting in remarkable results for both themselves and the organizations for which they work. Our training programmes are adaptable and customizable to ensure that each participant gets the most out of their time with us. IDMTECHPARK focuses in providing hands-on IT training in over 30 different courses.

- We teach in-demand courses
- We provide impactful learning material
- Our teachers are well-selected & trained
- We follow world-class teaching methods
- Our courses include E-Projects
- We conduct technical workshops
- Exams are held and based on Exams providing Certification
- Certificates are recognized the world over
- Our course timings are flexible



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Our Recent Placement

Idmtechpark assists students in getting job placements on successful completion of their courses. Idmtechpark also provides recruitment assistance to organizations. Idmtechpark students are shortlisted based on the organization's requirement. To make students job-ready, Idmtechpark conducts workshops e.g. How to do Group Discussions, how to behave in a Personal Interview. From time to time, job fairs & campus recruitments are conducted. Workplace skills such as time management, making effective presentations and communication skills are also provided. All this helps students find appropriate jobs in the IT industry while also helping save companies recruitment costs.

Krishnaveni M

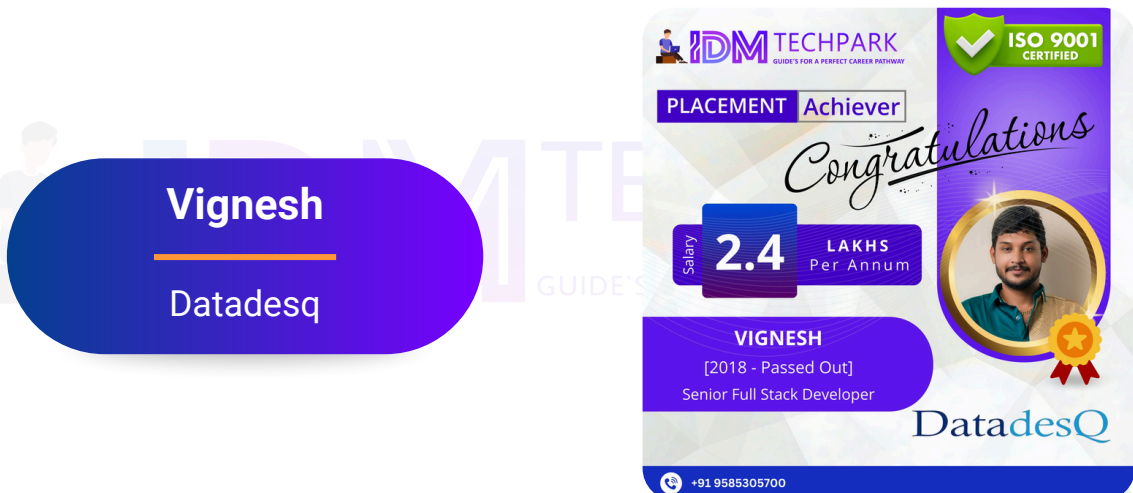
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Vel Info Tech



Poovitha

Gray Matter



Ramesh

TDT

Siva Sankar
 ST Cloudspark tech



Nabeel Hisham
 VTail



Kalayarasan
 Violet Infotech

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Our Alumni Working At



MODULE 1

Introduction to AngularJS

- Overview of AngularJS and Single Page Applications (SPA)
- MVC and MVVM Architectures in AngularJS
- Setting Up AngularJS Development Environment
- Introduction to AngularJS CLI (Command Line Interface)
- Introduction to AngularJS Framework and Core Concepts

MODULE 2

AngularJS Architecture and Structure

- Understanding AngularJS Architecture (Modules, Controllers, Views, Directives)
- The Role of Modules, Controllers, and Views in AngularJS
- Introduction to AngularJS Directives
- Understanding Scope and its Binding with Views
- Dependency Injection in AngularJS

MODULE 3

AngularJS Expressions and Data Binding

- Two-Way Data Binding in AngularJS
- Expressions vs. JavaScript Variables
- Types of Data Binding (String Interpolation, ng-model, ng-bind)
- One-Way and Two-Way Data Binding with ng-model
- Real-Time Data Binding and Its Benefits

MODULE 4

AngularJS Controllers and \$scope

- Introduction to AngularJS Controllers
- Using \$scope for Data Binding Between View and Controller
- Controller Methods and Properties
- Nested Controllers and Inheritance in \$scope
- Controller As Syntax and its Benefits

MODULE 5

AngularJS Directives

- Understanding Directives and Their Role in AngularJS
- Built-in Directives (e.g., ng-model, ng-repeat, ng-if, ng-show)
- Custom Directives in AngularJS
- Creating Reusable and Dynamic Directives
- Using link and controller Functions in Directives

MODULE 6

AngularJS Services and Factories

- Introduction to Services and Factories in AngularJS
- Creating and Using Custom Services
- AngularJS Built-in Services (\$http, \$location, \$timeout, etc.)
- Dependency Injection in Services
- Using Factories for Creating Services

MODULE 7

Routing and Navigation in AngularJS

- Introduction to AngularJS Routing and \$routeProvider
- Configuring Routes with ngRoute
- Setting Up Views and Templates in Routes
- Understanding URL Parameters and Query Strings
- Managing State and Nested Routes

MODULE 8

AngularJS Forms and Validation

- Working with Forms in AngularJS
- Using ng-model for Two-Way Data Binding with Forms
- Form Validation in AngularJS (Built-in Validators)
- Creating Custom Validators in AngularJS
- Handling Form Submission and Data Binding

MODULE 9

AngularJS Filters

- Introduction to Filters in AngularJS
- Using Built-In Filters (currency, date, uppercase, lowercase, etc.)
- Creating Custom Filters in AngularJS
- Chaining Filters for Complex Operations
- Using Filters in Views and Controllers

MODULE 10

AngularJS Events and Broadcasting

- Understanding Event Handling in AngularJS
- Using \$emit, \$broadcast, and \$on for Communication Between Components
- Propagation and Handling of Events in AngularJS
- Handling Custom Events and Data with Event Directives
- Working with Event Handlers and Views

MODULE 11

AngularJS Dependency Injection

- Introduction to Dependency Injection in AngularJS
- How Dependency Injection Works in AngularJS
- Using \$injector and \$provide
- Singleton and Factory Services in AngularJS
- Benefits and Challenges of Dependency Injection

MODULE 12

AngularJS AJAX and HTTP Requests

- Introduction to AJAX and HTTP Requests in AngularJS
- Using \$http Service to Send Requests
- Handling JSON Data with \$http
- Working with Promises and Asynchronous Data
- Handling Success and Error Responses in AJAX Calls

MODULE 13

AngularJS Animations

- Introduction to Animations in AngularJS
- Using ngAnimate to Create Animations
- Adding Animations to DOM Elements with ng-show, ng-hide, ng-class
- Creating Custom Animations Using CSS and JavaScript
- Best Practices for Animations in AngularJS

MODULE 14

AngularJS Unit Testing and TDD

- Introduction to Unit Testing and Test-Driven Development (TDD) in AngularJS
- Using Jasmine for Unit Testing in AngularJS
- Writing Unit Tests for Controllers, Services, and Directives
- Understanding AngularJS Testing Framework (Karma)
- Running and Debugging Tests with Protractor

MODULE 15

Working with AngularJS and JSON

- Introduction to JSON (JavaScript Object Notation) and its Role in AngularJS

- Fetching and Parsing JSON with \$http

- Binding JSON Data to Views and Models

- Converting Data to JSON and Handling Errors

- Using JSON Data with Filters and Custom Logic

MODULE 16

AngularJS Custom Directives

- Introduction to Custom Directives
- Creating and Using Directives with Isolated Scope
- Working with restrict, template, and link Functions
- Using Custom Directives for Reusable UI Components
- Best Practices for Directives in AngularJS

MODULE 17

AngularJS \$watch and Digest Cycle

- Understanding the \$watch Function in AngularJS
- The Digest Cycle in AngularJS and Its Role in Data Binding
- Optimizing Performance with \$watch
- Manual Digest and \$apply Method
- Preventing \$watch from Repeating Calls

MODULE 18

Modularization in AngularJS

- Importance of Modularity in AngularJS Applications
- Structuring Large AngularJS Applications with Modules
- Organizing Controllers, Services, and Directives into Modules
- Lazy Loading and Module Dependencies
- Using `angular.module()` to Define and Manage Modules

MODULE 19

Debugging and Error Handling in AngularJS

- Debugging AngularJS Applications Using Browser Dev Tools
- Handling Errors in AngularJS Applications
- Common Error Patterns and Their Solutions
- Using ng-cordova for Debugging
- Logging and Debugging with \$log and console.log

MODULE 20

Performance Optimization in AngularJS

- Strategies for Optimizing AngularJS Applications
- Understanding \$digest and \$apply Performance Bottlenecks
- Lazy Loading and Asynchronous Data Loading
- Using track by in ng-repeat for Performance Gains
- Best Practices for Memory and CPU Optimization

MODULE 21

Routing and SPA in AngularJS

- Advanced Routing with Nested Views
- Understanding the Concept of Single Page Applications (SPA)
- Handling Multiple Views and Navigation in AngularJS
- Building Navigation with ng-view and ng-router
- State Management in SPAs with AngularJS

MODULE 22

AngularJS Application Architecture and Best Practices

- Structuring Large Scale Applications in AngularJS
- MVC vs MVVM in AngularJS Architecture
- Separation of Concerns in AngularJS Applications
- Best Practices for Code Reusability and Maintainability
- Using AngularJS CLI for Better Project Structure

MODULE 23

Integrating AngularJS with Backend (Node.js or PHP)

- Connecting AngularJS to a Backend API (Node.js, Express, PHP, etc.)
- Using RESTful APIs with AngularJS
- Handling JSON and XML Data with \$http
- Authentication and Authorization with AngularJS and Backend
- Real-Time Communication Between Frontend and Backend

MODULE 24

Upgrading and Migrating AngularJS Applications

- Understanding AngularJS vs Angular (2+)
- Strategies for Upgrading from AngularJS to Angular (Migration Tools)
- Incremental Upgrade Approach
- Handling Compatibility Between AngularJS and Angular (2+)
- Addressing Common Migration Challenges

MODULE 25

Advanced Topics in AngularJS

- Advanced Directive Patterns and Use Cases
- Creating and Using Custom Filters in AngularJS
- Working with WebSockets in AngularJS for Real-Time Apps
- Integrating Third-Party Libraries and Plugins with AngularJS
- Future of AngularJS: Transitioning to Angular (2+)

Thank You

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