OJET and Angular
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Overview:
This comprehensive course delves into the intricacies of Oracle JET and AngularJS, two powerful frameworks for building dynamic web applications. Participants will explore fundamental concepts, learn to leverage advanced features, and gain practical experience through hands-on exercises and projects.

This class is for (audience):
- Web developers aiming to enhance their skills in building modern web applications.
- Software engineers interested in learning Oracle JET and AngularJS for frontend development.
- System architects and designers seeking to incorporate Oracle JET and AngularJS into their projects.
- IT professionals looking to expand their knowledge of web development frameworks.

Prerequisites:
- Basic understanding of HTML, CSS, and JavaScript.
- Familiarity with frontend development concepts.
- Some experience with web development frameworks is beneficial but not required.

Duration: 5 days (40 hours)

Objectives:
- Gain a deep understanding of Oracle JET and AngularJS frameworks.
- Learn to design and develop dynamic web applications using Oracle JET and AngularJS.
- Explore advanced features and best practices for building scalable and maintainable web applications.
- Develop practical skills through hands-on exercises and projects.
- Acquire knowledge of deployment strategies and optimization techniques.
- Enhance problem-solving and debugging skills in web development.

What you will learn:

- Core concepts and architecture of Oracle JET and AngularJS frameworks.
- Building and configuring Oracle JET and AngularJS projects.
- Implementing routing, navigation, and data binding in applications.
- Creating custom components and extending framework functionalities.
- Integrating RESTful APIs and handling data in applications.
- Implementing authentication, authorization, and security measures.
- Deploying and optimizing web applications for production environments.
- Best practices for code organization, naming conventions, and project structure.
- Testing, debugging, and troubleshooting techniques for web applications.
- Exploring emerging trends and future directions in web development.

Module 1: Introduction to Oracle JET and AngularJS

- Overview of Oracle JET and AngularJS frameworks.
- Key features and advantages of Oracle JET and AngularJS.
- Comparison of architecture, components, and ecosystem of both frameworks.
- Setting up development environments for Oracle JET and AngularJS projects.
- Understanding the role of Oracle JET and AngularJS in modern web development.
- Exploring resources and documentation for learning Oracle JET and AngularJS.
- Introduction to sample projects and use cases for Oracle JET and AngularJS.
- Discussion on industry trends and adoption of Oracle JET and AngularJS.
- Differences in syntax, data binding, and component structure between Oracle JET and AngularJS.
- Understanding the community support and resources available for Oracle JET and AngularJS.

Module 2: Getting Started with Oracle JET

- Introduction to Oracle JET's modular architecture and component-based design.
- Setting up a basic Oracle JET project structure using the CLI or templates.
- Exploring Oracle JET's UI components library and its usage.
- Configuring routing and navigation in Oracle JET

applications.

- Working with Oracle JET's data binding features and observables.
- Understanding Oracle JET's support for responsive design and accessibility.
- Implementing layouts and templates in Oracle JET applications.
- Integrating Oracle JET with RESTful APIs for data retrieval and manipulation.
- Deploying Oracle JET applications to different environments (local, development, production).
- Troubleshooting common issues and debugging Oracle JET applications.

Module 3: AngularJS Essentials

- Understanding the fundamental concepts of AngularJS: modules, controllers, and directives.
- Implementing data binding and interpolation in AngularJS applications.
- Working with AngularJS services for sharing data and business logic.
- Introduction to AngularJS routing for building single-page applications.
- Utilizing AngularJS directives for creating reusable components.
- Handling user events and form submissions in AngularJS applications.
- Implementing dependency injection and managing application dependencies in AngularJS.
- Introduction to AngularJS filters for data formatting and manipulation.
- Integrating AngularJS applications with backend APIs using $http service.
- Testing AngularJS components using unit testing frameworks like Jasmine or Karma.

Module 4: Building Applications with Oracle JET

- Creating custom Oracle JET components and extending the framework's functionality.
- Implementing advanced routing and navigation patterns in Oracle JET applications.
- Utilizing Oracle JET's data visualization components for displaying charts and graphs.

- Implementing form validation and error handling in Oracle JET applications.
- Exploring Oracle JET's internationalization and localization features.
- Integrating third-party libraries and plugins into Oracle JET projects.
- Implementing authentication and authorization mechanisms in Oracle JET applications.
- Deploying Oracle JET applications to cloud platforms like Oracle Cloud Infrastructure or AWS.
- Implementing performance optimization techniques for Oracle JET applications.
- Implementing continuous integration and deployment pipelines for Oracle JET projects.

Module 5: Advanced Topics and Best Practices

- Exploring advanced data handling techniques such as lazy loading and pagination in Oracle JET.
- Implementing client-side caching strategies for improving performance in Oracle JET applications.
- Building responsive and mobile-friendly Oracle JET applications with adaptive design principles.
- Implementing real-time features using WebSockets or Server-Sent Events in Oracle JET.
- Implementing role-based access control and fine-grained permissions in Oracle JET applications.
- Implementing progressive web app (PWA) features in Oracle JET applications.
- Integrating Oracle JET applications with serverless architectures using Oracle Functions or AWS Lambda.
- Exploring best practices for code organization, naming conventions, and project structure in Oracle JET.
- Implementing error logging and monitoring solutions for Oracle JET applications.
- Exploring emerging trends and future directions in Oracle JET development.