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Discover Learning

Full Stack Developer Masters Program

Course Curriculum

masters programme

About Edureka

Edureka is a leading e-learning platform providing live instructor-led interactive online training. We cater to professionals and students across the globe in categories like Big Data & Hadoop, Business Analytics, NoSQL Databases, Java & Mobile Technologies, System Engineering, Project Management and Programming.

We have an easy and affordable learning solution that is accessible to millions of learners. With our students spread across countries like the US, India, UK, Canada, Singapore, Australia, Middle East, Brazil and many others, we have built a community of over 1 million learners across the globe.

About The Course

Edureka's Masters Program will provide you in-depth knowledge of front-end and back-end technologies including JavaScript, HTML, CSS, NodeJS, Python, AngularJS, MongoDB and many more thereby making you an expert full stack web developer. The program provides access to 200+ hours of interactive online learning, 10+ industry-based use cases, skills specific assessments and other resources. There are no prerequisites for enrollment to the Masters Program. It is designed and developed to accommodate

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dise professional backgrounds. Our Masters Program recommends the ideal path for becoming a Full Stack Developer, however, it is learner's preference to complete the courses in any order they intend to.

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Web Development Certification Training

Course Curriculum

About The Course

The Complete Web Developer Course - Build 5 Websites course at Edureka starts from the basics of web development like HTML elements, styling the HTML elements with CSS, using newly introduced features in HTML5 and CSS3 to deploying the websites on Amazon Simple Storage Service.

Module 1 : Deploying the first Website to Amazon S3

Learning Objectives

At the end of this Module, you will learn the basics of web development, deploy your first website on Amazon Simple Storage Service.

Topics

- ✅ Writing HTML code using Header Tags
- ✅ Creating an Amazon Web Services (AWS) account and how to deploy a static website to AWS Simple Storage Service (S3)
- ✅ Paragraphs, Ordered and Unordered ists, Forms , Links, Tables, Iframes, Images, Text Formatting, Image Maps

Module 2 : Creating web pages with HTML5

Learning Objectives

At the end of this Module, you will learn the use all elements in HTML5 and their features.

Topics

- Encoding URL
- Handling of multiple file upload using multiple attribute
- HTML5 Local Storage
- HTML5 web workers and server sent events
- Introduction to XHTML, Using HTML5 introduced features
- HTML5 form validate/no validate, HTML5 canvas, embedding audio and video in a webpage, drag and drop

Module 3 : Styling web pages using CSS

Learning Objectives

At the end of this Module, you will learn to define style the HTML elements, elaborate ways to write CSS like external, internal, inline.

Topics

- Styling of HTML elements-text, links, lists and tables
- Creating Navigation Bars
- Writing Media Rules, hide visibility of an element
- Different ways to write CSS e.g. external, internal, inline
- CSS Image Sprites and Gradients
- CSS Pseudo Classes and Pseudo Elements

Module 4 : CSS3 effects and animations

Learning Objectives

At the end of this Module, you will learn text Effects using different text fonts, creating 2D and 3D transformations, apply animations, transitions to HTML elements, discuss CSS3 resize UI and multiple columns feature.

Topics

- ✅ CSS3 Text Effects using different text fonts
- ✅ Applying animations, transitions to HTML elements
- ✅ Creating 2D and 3D transformations
- ✅ CSS3 resize UI and multiple columns feature

Module 5 : Handling events with JavaScript

Learning Objectives

At the end of this Module, you will learn the basics of JavaScript and how to manipulate DOM elements.

Topics

- ✅ Java Script datatypes, variables, arrays
- ✅ Defining and calling JavaScript functions on events
- ✅ Creating loops and writing if-else decision making statements
- ✅ Manipulating DOM elements

Module 6 : Twitter Bootstrap 3

Learning Objectives

At the end of this Module, you will learn CSS and JS framework Twitter Bootstrap 3, demonstrate Bootstrap in the project, apply Bootstrap features, fixed drop down menu carousel, text and image grids.

Topics

- Getting started with Twitter Bootstrap 3
- Using Font Awesome Icons
- Bootstrap features like fixed drop down menu, carousel, text and image grids, custom thumbnails, bootstrap modal

Module 7 : Twitter Bootstrap 3 Project

Learning Objectives

At the end of this Module, you will be able to create a complete website using Twitter Bootstrap 3 features.

Topics

- Building a real world website using Twitter Bootstrap 3 features e.g. bootstrap fixed dropdown menu, carousel, bootstrap modal, font awesome icons, custom thumbnails, text and image grids
- Accordions, signing/signup form and jumbotron

Module 8 : Bootstrap Scroll Spy, jQuery and jQuery UI

Learning Objectives

At the end of this Module, you will learn how to build a website using Bootstrap Scroll Spy feature, explain jQuery, use jQuery UI components (E.g.) Date picker into your HTML pages, create a Countdown timer using one of the jQuery timer API which can be used to create a timer for an upcoming event.

Topics

- ✅ Bootstrap Scroll Spy, Including jQuery in HTML pages

- ✅ Creating a Countdown timer using jQuery timer API

- ✅ Using jQuery UI components e.g. Date picker into your HTML pages

Module 9 : Ajax, Google APIs, Social Plugins

Learning Objectives

At the end of this Module, you will learn how to define JavaScript and XML popularly known as AJAX, create ajax calls to Google APIs and process the response, develop social plugins on your web page provided by LinkedIn, Facebook, Quora and Twitter.

Topics

- ✅ AJAX XML Http Request object, making an AJAX call and retrieving the response.

- ✅ Working with Google APIs Adding social plugins on your web page provided by LinkedIn, Facebook, Quora and Twitter

Module 10 : Project - Building Website Tourt

Learning Objectives

At the end of this Module, we will integrate tour feature in the website using Bootstrap tour JavaScript.

Topics

✅ Integrating Bootstrap tour into website, starting and stopping the tour

Project Work

Problem Statement:

Build a web application with Bootstrap which includes following features:

1. Google Charts API to show Pie Charts (i.e. popularity of programming languages)

2. Google Maps API to include Maps on web pages

3. Bootstrap Carousel

4. Use the Lobster font on web pages (http://www.fontsquirrel.com/fonts/Lobster)

5. Deploy the web application on Amazon S3

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JQuery UI Development

Course Curriculum

About The Course

The jQuery UI training course is designed to provide knowledge and skills to become a successful UI Developer. It starts with the fundamental concepts of jQuery DOM Traversing, jQuery Events API, jQuery Effects to advance topics of jQuery UI Widgets, jQuery Mobile etc. Participants will also get to implement one real-time UI Project to a web application and mobile app.

Module 1 : Introducing jQuery

Learning Objectives

In this module, you will understand about jQuery and overview of what jQuery does for web pages. You will also learn Basics of HTML & CSS and how jQuery is used to manipulate your DOM & CSS Selectors.

Topics

- Intro to jQuery & History
- Basic DOM HTML Document/Page Types
- The jQuery Object($)
- CSS Selectors

- ✓ IDE's for jQuery
- ✓ Selectors
- ✓ jQuery CDN & Installation
- ✓ jQuery Functions
- ✓ DOM Traversing

- ✓ Querying DOM
- ✓ Traversing the DOM. jQuery Selectors
- ✓ jQuery Basic Functions

Module 2 : DOM Manipulation & jQuery Effects

Learning Objectives

In this module, you will learn how jQuery is used manipulate DOM easily, Also you will learn about readily available jQuery effects that can be applied to web page to make Rich Interactive Websites.

Topics

- ✓ Adding and Removing DOM elements
- ✓ DOM elements
- ✓ jQuery Filters
- ✓ Hide/Show
- ✓ Fading methods
- ✓ Animate Function

- ✓ Iterating with each()
- ✓ Modifying Properties and Attributes
- ✓ jQuery Effects
- ✓ Chaining

Module 3 : jQuery Forms & Events

Learning Objectives

In this module, you will learn jQuery Event, event delegation and various events type in.

Topics

- jQuery Form Selectors
- Form Submission, Events
- jQuery on() & off()
- Form Validation
- Event Handling
- Custom Events and Triggers

Module 4 : jQuery AJAX & Utilities

Learning Objectives

In this module, you will learn about AJAX and how you can communicate with server using jQuery inbuilt functions and other jQuery utilities.

Topics

- AJAX using jQuery
- PHP and $.each and Templating
- Deferreds
- Interacting with Server-Side
- Twitter/Github API

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Module 5 : jQuery Plugins

Learning Objectives

In this module, you will learn about jQuery plugins, how to use them into your web projects and basic plugin development.

Topics

- ✅ jQuery 3rd party plugins
- ✅ Plugin Development
- ✅ Plugin Implementation

Module 6 : jQuery UIt

Learning Objectives

In this module, you will learn about jQuery UI and single UI Component. We will look through the APIs of each Component.

Topics

- ✅ Accordion Widget
- ✅ Tooltip Widget
- ✅ Widget
- ✅ jQuery Mobile
- ✅ Tabs Widget
- ✅ Menu Widget
- ✅ Datepicker Widget

Module 7 : jQuery Mobile Introduction

Learning Objectives

In this module, you will learn about Basics of jQuery Mobile. And also various UI components available in jQuery Mobile.

Topics

- ✔ jQuery Mobile CSS Framework
- ✔ Mobile Widgets
- ✔ jQuery Mobile Events

Module 8 : Project

Project 1 : Developing Admin for Content Management System.

Type : CMS (Web Application)

Data : You will developing a real time UI Web pages and UI Components for a Content Management System.

Project 2 : jQuery Mobile App

Type : Corp Event

Data : You will developing a Event Mobile App using jQuery Mobile.

Angular Certification Training

Course Curriculum

About The Course

Angular is a JavaScript framework which is used to create scalable, enterprise, and performant client side web applications. It provides an ecosystem for development of client side web applications. The ecosystem for development may include external tools or libraries as well. The ecosystem process includes project bootstrapping, development operations/tools, testing, and build support.

One of the best features of Angular framework is that it is quite flexible when it comes to usage of external libraries apart from the scalability it provides. With Angular framework adoption being high, performance management of the application is community driven indirectly driving better job opportunities. The Angular Certification Training aims at covering all these new concepts around Enterprise Application Development.

Module 1 : Introduction to JavaScript MVC Framework & Angular

Learning Objectives

At the end of this Module, you should be able to compare JavaScript design patterns - MVC, explain client side SPA, libraries, and frameworks, demonstrate typescript, setup angular project.

Topics

- JavaScript MVC, SPA Intro
- NodeJS Intro (NPM)
- Typescript Introduction
  (When to use types / When not)

- Angular Hello World Demo
- Companion Objects

Module 2 : Components and DOM Interactions

Learning Objectives

At the end of this Module, you should be able to express how angular works , describe components and creation, work with multiple components,DOM manipulation API.

Topics

- Components and Metadata
- Multiple Components and Metadatat

- Data Passing in Components
- DOM Manipulation (View, Content Access)

Module 3 : Components and Dependency Injection

Learning Objectives

At the end of this Module, you should be able to express how describe dependency injection, describe creation and working with Injectable dependencies, express change detection and emulation strategies, work with application lifecycle hooks.

Topics

- Component creation strategies
- Angular lifecycle hookst
- Introduction to Dependency Injection
- Sharing data between components

Module 4 : Routes, Inbuilt Directives and Pipes

Learning Objectives

At the end of this Module, you should be able to analyze application cleanliness and angular modules, work with SPA routes, inbuilt directives and forms, inbuilt pipes.

Topics

- Angular Modules
- Routes (Simple and Nested)
- Inbuilt Directive
- Inbuilt Pipes

Module 5 : Custom Directives and Pipes

Learning Objectives

At the end of this Module, you should be able to work with custom directives, custom pipes, HTTP features, describe how promises and observables work.

Topics

- Custom Directives
- Custom Pipes
- Inbuilt Features - HTTP Request

Module 6 : Third-party Library Integration, Other APIs

Learning Objectives

At the end of this Module, you should be able to work with external / third party libraries like JQuery / Socket.IO, discuss and work with other APIs, analyze options available for upgrading from 1.x, discuss the concept of Internationalization and Localization.

Topics

- Integrating JQuery / Socket.io
- Introduction to Third party library integration
- Touch Angular 1.x to 2.x (or Higher usage) - Do's and Don'ts

- Introduction to i18n and l10n
- Introduction to SystemJS/CommonJS
- Other APIs

Module 7 : Unit Testing and Angular-CLI

Learning Objectives

At the end of this Module, you should be able to describe unit testing and TDD concepts, work with Jasmine Framework, Angular-CLI, angular-CLI for test environment setup, other angular application development tools, work on real-time Angular application (EVS).

Topics

- Unit Testing, related Tools, and TDD
- Introduction to Angular CLI
- Unit Test Environment and set up using Angular CLI

- Introduction to Jasmine Framework
- Other Tools

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Module 8 : Project/Use-Cases

Learning Objectives

At the end of this Module, you should be able develop Angular Applications and work with Data.

Project / Use-Cases:

- ✅ Simple Employee Management
- ✅ Grocery list Management

- ✅ Top Movies
- ✅ Project – Shopping Cart Application

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Node.js Certification Training

Course Curriculum

About The Course

Node.js Certification Training helps you develop applications using Express and deploying them to Heroku. You will learn how to use EJS/Jade/Handlebars, build applications backed by MongoDB, write realtime chat application using Socket IO. You will also learn to use Grunt and Gulp, test with Mocha and Chai. Learn which framework suits your needs by knowing Hapi and Meteor.

Module 1 : Getting started with Node.js and ExpressJS

Learning Objectives

At the end of this Module, you should be able to understand what is Node.js and what makes Node.js so popular, learn how to use Node Package Manager (NPM) and ExpressJS Framework, create a ExpressJS application and deploy it to Heroku, learn how to use Nodemon.

Topics

- What is NodeJS?
- Node Package Manager (NPM)
- Pushing code to GitHub
- Building first Node App using Express
- Installing NodeJS
- ExpressJS Framework
- Deploying application to Heroku
- Using Nodemon

Module 2 : Building application with EJS Template

Learning Objectives

At the end of this Module, you should be able to master templating engines specifically EJS, master templating engines specifically EJS, learn how to use Bootstrap framework, create an express app using EJS template and deploy it to Heroku.

Topics

- JavaScript Templating Engines
- Twitter Bootstrap
- How to modularize code by separating routes
- Creating project using EJS template
- How to use EJS partials
- Deploy code to Heroku

Module 3 : Building Application using Jade and Handlebars template

Learning Objectives

At the end of this Module, you should be able to work with different templating engines, Jade and Handlebars template engines, build applications using Jade and Handlebars and deploy it to Heroku.

Topics

- Jade Templating Engine
- Using Jade to create a web app
- Deploying Jade application to Heroku
- Deploying Handlebars application to Heroku.
- Getting started with Jade
- Handlebars Templating Engine
- Handlebars templates and partials
- Using Handlebars to create a web app

Module 4 : Build Web Applications using ExpressJS & MongoDB

Learning Objectives

At the end of this Module, you should be able to handle story creation app by adding note editor, save user stories and Generate a slug for each story, handle 404 and 500 errors, use MongoLabs hosted MongoDB as your database, deploy the applicatoion to Heroku, buy Domain and setup custom domain for Heroku application.

Topics

- Introduction to MongoDB
- Understanding Mongoose Schema and Model
- Using chalk to differentiate log messages
- Performing Authentication using MongoDB

- Getting started with Mongoose
- Using body-parser and express session modules
- Hashing passwords with bcrypt
- Implementing SignUp, Login, Logout features.

Module 5 : Build Web Applications using ExpressJS & MongoDB - Part 2

Learning Objectives

At the end of this Module, you should be able to handle story creation app by adding Summernote editor, save user stories and Generate a slug for each story, handle 404 and 500 errors, use MongoLabs hosted MongoDB as your database, deploy the applicatoion to Heroku, buy Domain and setup custom domain for Heroku application.

Topics

- Summernote editor
- Generating a slug for each story
- Using MongoLabs hosted MongoDB as our database
- Buying Domain and setting custom domain for Heroku application

- Saving user stories
- Handling 404 and 500 errors
- Deploying the applicatoion to Heroku
- Implementing SignUp, Login, Logout features.

Module 6 : Building Realtime Chat Application using Socket.IO

Learning Objectives

At the end of this Module, you should be able to master WebSocket and Socket IO, handle events at server and client side, design the chat UI, handle private and public messages, deploy the chat application to Heroku.

Topics

- Introduction to WebSocket and Socket IO
- Handling events at server and client side
- Handling private and public messages

- Getting started with Socket IO
- Handling 404 and 500 errors
- Designing the chat UI
- Deploying the chat application to Heroku

Module 7 : Build Systems - Grunt and Gulp, Testing with Mocha and Chai

Learning Objectives

At the end of this Module, you should be able to learn what is a Build System and why we need a build system, create grunt tasks for CSS, JS minification and watch using Grunt, master Gulp by Writing gulp tasks for CSS, JS minification and watch, write test cases with Mocha and Chai.

Topics

- ✅ What is a Build System?
- ✅ Getting started with Grunt
- ✅ Writing gulp tasks for CSS, JS minification and watch
- ✅ Creating grunt tasks for CSS, JS minification and watch

- ✅ Why we need a build system?
- ✅ Handling 404 and 500 errors
- ✅ Getting started with Gulpt

Module 8 : Getting started with Hapi and Meteor

Learning Objectives

At the end of this Module, you should be able to master Hapi framework by writing a basic app with Hapi, use Amazon Relational Database Service (RDS) to host MySQL database, master Meteor by knowing how to choose a web framework from Express, Hapi and Meteor.

Topics

- ✅ Getting started with Hapi
- ✅ Using Amazon Relational Database Service (RDS) to host MySQL database
- ✅ How to choose a web framework from Express, Hapi and Meteor

- ✅ Writing a basic app with Hapit
- ✅ Getting started with Meteor

Project Work

Project 1: LeaveTheMarks Application http://www.leavethemarks.org

Project Description: LeaveTheMarks is a story sharing application where users share their stories. This application have the following features :-

1. Unregistered users will be able to create accounts

2. Registered users will be required to login to create a story, once login user can logout

3. A user is not required to login to read the stories

4. To leave comments on a story user will be required to Login

5. Application uses MongoDB to store authentication details (username, password, email) and user stories

6. Passwords are encrypted using bcrypt before storing them into MongoDB

7. User session is maintained once a user login

8. Application is deployed on Heroku and we set a custom domain for our Heroku app

9. Application uses Express framework and EJS template engine

10. Note that we use MongLab provided hosted MongoDB as our database in production

Project 2 : Socket IO Realtime Chat Application

https://awesome-socket-io.herokuapp.com Project Description: We will build a realtime chat application using Socket IO. This application have the following features :-

1. To join the chatroom you just require a shortname

2. If a shortname is already taken by an another user an error message is shown

3. Once a user joins a chatroom, user can broadcast messages to all the users that are currently logged in

4. Rather than broadcasting message to all the users, a user can also send a private message to a single user

5. If you try to send a private message to a user that is not currently online you will get an error message

6. Once a user joins the chatroom, the user can see all the users that are currently online

7. All the messages that a user sends are displayed on the chat window, note that private messages are displayed in a different way than broadcast messages

8. Note that we don't store chat messages into database so if a user reloads the application previous messages will not be shown

9. Chat messages are stored in sockets.

Project 3 : iLoveMyCity Application https://ilovemycity-ejs.herokuapp.com using EJS template engine Project Description: We will build a simple website with Express framework using EJS template engine. This application have the following features :-

1. Describes a city in a few pictures

2. How many pictures to show, is controlled by the data passed to views?

3. The common code is separated into EJS partials to allow code reusability

4. EJS partials are included in EJS views

Project 4 : iLoveMyCity Application http://ilovemycity-jade.herokuapp.com using Jade template engine Project Description: We build the same iLoveMyCity application with Express framework using Jade template engine. This application have the following features :-

1. Describes a city in a few pictures

2. Uses Jade template engine to create views

3. The common code is separated into Jade partials to allow code reusability

4. Jade partials are included into Jade views

Project 5 : iLoveMyCity Application https://ilovemycity-handlebars.herokuapp.com using Handlebars template engine Project Description: We build the same iLoveMyCity application with Express framework using Handlebars template engine. This application have the following features :-

1. Describes a city in a few pictures

2. Uses Handlebars template engine to create views

3. The common code is separated into Handlebars partials

4. Handlebars partials are included in Handlebars views

5. Templates are displayed using default layout

MongoDB Certification Training

About The Course

MongoDB® Training Certification course will help to master one of the most popular NoSQL databases. This course is designed to provide knowledge and skills to become a successful mongoDB® expert. The course covers a range of NoSQL and mongoDB® topics such as CRUD Operations, Schema Design and Data Modelling, Scalability etc.

Module 1 : Design Goals, Architecture and Installation

Learning Objectives

At the end of this Module, you should be able to understand Database Categories, Mongo DB Overview, design Goals for MongoDB Server and Database, Mongo DB Tools, introduction to JSON and BSON, installation of MongoDB on Windows, Linux, MAC OS etc., environment Setup for MongoDB.

Topics

- Understanding Base Concepts of Database

- Types of NoSQL Database, and NoSQ vs. SQL Comparison, ACID & Base Property

- Database Categories, What is NoSQL? Why NoSQL? Benefit over RDBMS,

- CAP Theorem, and Implementing NoSQL, What is MongoDB?

- ✓ Overview of MongoDB, Design Goals for MongoDB Server and Database, MongoDB Tools

- ✓ How to modularize code by separating routes

- ✓ Installation/Running MongoDB on various platforms Windows, Linux, MAC OS etc.

- ✓ Project: Problem Statement.

- ✓ Depth Understanding of Database, Collection, Documents and Key /Values etc.

- ✓ Introduction to JSON and BSON Documents

- ✓ Environment Setup (Live Hands on), Usage of various MongoDB Tools available with MongoDB Package,

Module 2 : CRUD Operations

Learning Objectives

At the end of this Module, you should be able to understand MongoDB's development and production architecture, read and write concepts of MongoDB, how Journaling works, Use mongo shell for CRUD operations, understand different mongoDB® data types.

Topics

- ✓ MongoDB Development Architecture

- ✓ MongoDB CRUD Introduction

- ✓ Concern Levels, Journalling etc.

- ✓ Distributed Read & Write Queries

- ✓ MongoDB Datatypes

- ✓ MongoDB Production Architecture

- ✓ MongoDB CRUD Concerns

- ✓ Cursor Query Optimizations, Query Behaviours in MongoDB

- ✓ MongoDB CRUD Syntax & Queries (Live Hands on)

Module 3 : Schema Design and Data Modelling

Learning Objectives

At the end of this Module, you should be able to understand different concepts of data modeling in MongoDB®, different types of data model, the challenges of designing data model in MongoDB®, apply the knowledge in a real world use case.

Topics

- Data Modelling Concepts

- Type of Data ModellingType of Data Modelling

- Data Model Examples and Patterns

- Model Tree Structures

- Model Relationships between Documents

- Use Case of Data modelling

- Type of Data Modelling

- Analogy between RDBMS & MongoDB Data Model, MongoDB Data Model (Embedding & Linking)

- Challenges for Data Modelling in MongoDB

- Model Specific Application Contexts

Module 4 : Administration

Learning Objectives

At the end of this Module, you should be able to take database backup and restore MongoDB®, export and import data from/to a MongoDB® instance, check server status, db status, monitor various resource utilization of a mongod instance, understand various optimization strategies, create capped collection, use TTL in MongoDB®.

Module 5 : Scalability and Availability

Learning Objectives

At the end of this Module, you should be able to understand the concepts of replica set, concept of sharing in MongoDB®, create a production like sharded cluster.

Topics

- Introduction to Replication
- What is Replica Set and Master Slave Replication?
- Introduction to Sharding
- Concepts around Sharding, What is shards, Key
- How to setup a Sharding

- Concepts around Replication
- Type of Replication in MongoDB
- How to setup a replicated cluster Managing Replica Sets etc.
- Config Server, Query Router etc.?
- Type of Sharding (Hash Based, Range Based etc.), and Managing Shards.

Module 6 : Indexing and Aggregation Framework

Learning Objectives

At the end of this Module, you should be able to use various type of indexes in MongoDB®, use hint, explain plan of a query, work with Geospatial indexes, aggregation Pipeline in MongoDB®, use MapReduce framework.

Topics

- Index Introduction
- Index Types
- Index Creation
- Aggregation to Introduction
- Type of Aggregation (Pipeline, MapReduce & Single Purpose)

- Index Concepts
- Index Properties
- Index Tutorial
- Indexing Reference
- Approach to Aggregation
- Performance Tuning

Module 7 : Application Engineering and MongoDB Tools

Learning Objectives

At the end of this Module, you should be able to use MongoDB® tools, understand Jaspersoft integration with MongoDB®, know other popular use case of MongoDB®, know various API drivers available for MongoDB®, run few query operators through http interface.

Topics

- MongoDB Package Components
- MongoDB Limits and Thresholds
- MMS (MongoDB Monitoring Service)
- HTTP and Rest Interface
- Integration of MongoDB with Hadoop and Data Migration MongoDB with Hadoop (MongoDB to Hive).

- Configuration File Options
- Connection String URI Format/ Integration of any compatible tool with MongoDB API and Drivers for MongoDB

Module 8 : Project, Additional Concepts and Case Studies

Learning Objectives

At the end of this Module, you should be able to know security concepts in MongoDB®, understand how Authentication and Authorization works, integrate MongoDB® with Java, integrate MongoDB® with Jaspersoft, apply MongoDB® in a real life project.

Topics

- Security Introduction
- Security Tutorial
- Integration of MongoDB with Pentaho
- Integration of MongoDB with Java
- Integration of MongoDB with GUI Tool Robomongo

- Security Concepts
- Integration of MongoDB with Jaspersof
- Integration of MongoDB with Hadoop/Hive
- Project on MongoDB and Java

Project Work

1. Design a HR schema and Perform All CRUD Operation
2. Setup a MongoDB on Windows/Linux and Perform Import and Export Activities
3. Monitor and Tune MongoDB Database Performance with Monitoring Tools
4. Take Backup and Restore
5. Setup a Replication, Load Some Data and Visualise Through All Replica
6. Setup a Sharding and Load Some Data and Visualise from All Shards
7. Create, Rebuild and Remove Indexes on a Collection

8. Perform all Aggregation Activities (Pipeline, MapReduce and General Purpose aggregation

9. Install a Robomongo GUI Tool and Explore All Schema and Data inside the MongoDB

10. Install a Jaspersoft (iReport) Reporting Tool and Generate Some Reports on MongoDB Data:4

11. Install JDK (Java) and Develop a Small Application to Perform CRUD Operation on MongoDB