



CERTIFICATE IN FULL-STACK DEVELOPMENT- React

DURATION: 240 Hours

TOTAL CREDITS: 8

COURSE SYLLABUS

Objective

Certificate in Full-Stack Development- React aims to teach the core concepts of both the front-end and back-end programming, to get familiar with the latest web development technologies like React, React Native, learn all about SQL databases and use them as the back-end for React Applications

Exit Profile

- Expertise to develop web applications using classic React JS
- Expertise to develop mobile applications using React Native
- Expertise in Database Operations and MySQL

Career Path

- Full-Stack Web Developer - React
- Frontend developer -React
- Back-End Developer -React
- Mobile Application Developer

Course Outline

Course Name:	CERTIFICATE IN FULL-STACK DEVELOPMENT- REACT	Duration:	240 H
Module	Topic	Dur.	Total Dur.
MODULE -1	Introduction to UI/UX designing	6 H	120 H
	HTML	18 H	
	CSS	18 H	
	JavaScript	30 H	
	JQuery	30 H	
	Bootstrap	18 H	
MODULE -2	React JS	30 H	120 H
	Mobile Application Development using React Native	30 H	
	RDBMS - SQLITE	30 H	
	SQLite as Back-end for React Applications	18 H	
	Introduction to Cloud Computing, Git & GitHub	12 H	

Course in Detail

MODULE-1

INTRODUCTION TO UI/UX DESIGNING

- HTML
- CSS
- JavaScript
- JQuery
- Bootstrap
- Core Java Programming
- RDBMS -My SQL Server
- JDBC
- Servlets
- JSP
- Spring Frameworks
- Hibernate
- Introduction to Cloud Computing, GIT & GITHUB

HTML

- Introduction
- Building Blocks of Web Frontend
- Introduction To HTML
- Basic HTML TAGS
- Advanced HTML Tags & concepts.

CSS

- Introduction to CSS
- CSS Basics
- CSS Advanced

JAVASCRIPT

- Introduction to DHTML
- Javascript Basics
- Javascript Advanced
- Document Object Model
- Manipulating DOM using JS
- DOM Events

JQUERY

- JQuery Basics
 - What is JQuery?
 - Adding JQuery to a web page
 - JQuery Syntax
 - JQuery Selector
 - JQuery Events
- JQuery Advanced
 - HTML Manipulations
 - Effects
 - Traversing
 - Plugins

BOOTSTRAP

- What is Bootstrap?
- Adding bootstrap to your projects.
- Different predefined Element styles
- The Grid System
- Forms
- Templates

MODULE -2

REACT JS

- Introduction
- Basic Architecture
- Creating React Applications
- JSX
- Working With List and Conditionals
- Styling React Components & Elements
- Working With State and Props
- Debugging In React App
- Rendering Lists
- Event Handling In REACT
- Diving Deeper into Components & React Internals
- Working With Forms
- Routing With React Router
- Just REDUX
- Immutable for Immutable Data structures
- Reaching out to The Web (Http Ajax)
- React REDUX
- Unit Testing in REACT
- Server-Side Rendering with React

MOBILE APPLICATION DEVELOPMENT USING REACT NATIVE

- React Native Basics
- Environmental Setup
- Workflow
- Design
- Interaction
- Inclusion
- Performance
- Javascript Runtime

- Connectivity
- Native Modules
- Native Components

RDBMS - SQLITE

- Overview
- Installation
- Commands
- Syntax
- Data Types
- Database Operations
- Tables
- Inserting Data to Tables
- Queries
- Operators
- Expressions
- WHERE Clause
- AND & OR Clauses
- UPDATE Query
- DELETE Query
- LIKE Clause
- LIMIT Clause
- ORDER By Clause
- GROUP By Clause
- HAVING Clause
- DISTINCT Keyword
- Joins
- Constraints

SQLITE AS BACK-END FOR REACT APPLICATIONS

- Install React Native packages
- Implementing a datastore service
- Using the db service
- Loading data
- Adding an item
- Deleting an item
- Filtering data with WHERE and using variables
- Handling common SQLite errors in React Native

INTRODUCTION TO CLOUD COMPUTING, GIT & GITHUB

- What is cloud computing?
- Working of cloud Computing
- Advantages of Cloud Computing
- What is Git and Gitlab?
- Installing Git
- Git File Management
- Branching
- Pull Requests
- Common Workflows