THE GEEK
INSTITUTE OF CYBER SECURITY

THE
GEEK INSTITUTE
OF CYBER SECURITY

Full Stack Web Development (MERN)

Dear Esteemed Learner,

At The Geek Institute of Cyber Security, we recognize the profound impact we have on shaping your future, and we approach this responsibility with utmost dedication.

As the founder of The Geek Institute of Cyber Security, I am committed to providing you with unparalleled training enriched by hands-on projects and promising opportunities.

With us, your journey towards a successful and prosperous career begins.

Wishing you every success!

Warm regards,

Mani Kumar
Founder, The Geek Institute of Cyber Security

Course Description

Duration : 12 Months

This hands-on MERN Full Stack Web Development course is designed for aspiring developers and programmers seeking to master the art of both front-end and back-end development. The curriculum is structured to provide a balanced blend of theory and practical application, allowing students to grasp the intricacies of each component in the MERN stack.

Prerequisites:

Basic understanding of HTML, CSS, and JavaScript

Familiarity with version control (Git/GitHub)

Who can Enroll ?

Beginners: This course cater to complete beginners with little to no prior experience in web development or design. If you've never coded or designed a website before, you're a prime candidate.

Students: High school, college, or university students studying computer science, information technology, graphic design, or related fields can benefit from our Web Designing and Development course to supplement their education.

Career Changers: If you're looking to switch careers or add new skills to your existing skill set, our Web Designing and Development course offer a viable pathway into the tech industry.

Coding Enthusiasts: If you're simply passionate about coding or have a keen interest in web technologies, this course offer an opportunity to explore and deepen your knowledge.

Job Seekers: Individuals seeking employment in tech-related roles, such as front-end or full-stack developers, can benefit from this course to improve their job prospects.

Anyone with a Curiosity for the Web: Our Web Designing and Development course is open to anyone curious about how websites are created. They can be taken for personal enrichment and self-improvement.

Course Objectives

Front-end Foundations: Dive into HTML5, CSS3, and JavaScript to build a strong foundation for front-end development. Learn the essentials of React.js, a cutting-edge JavaScript library for building user interfaces, and understand how to create responsive and interactive web applications.

Back-end Proficiency with Node.js and Express.js: Explore the server-side of web development by delving into Node.js and Express.js. Understand how to build RESTful APIs, handle HTTP requests, and seamlessly integrate server-side logic into your applications.

Data Management with MongoDB and Mongoose: Uncover the power of MongoDB, a NoSQL database, and leverage Mongoose for efficient data modeling and interaction. Master CRUD operations, schema design, and data validation, ensuring your application's data layer is robust and scalable.

State Management and Advanced React Techniques: Move beyond the basics of React.js and delve into advanced concepts such as React Hooks, functional components, and state management with Context API and Redux. Learn to handle forms effectively and enhance the user experience.

Deployment Strategies: Understand deployment best practices and deploy your applications using platforms like Heroku and Netlify. Ensure your projects are optimized for production and accessible to a global audience.

Job Profiles

Full Stack Web Development (MERN) course opens up a wide range of job opportunities in the field of Website Development and Design.

Front-end Developer: Front-end developers are responsible for creating the user interface and user experience of a website. They work with HTML, CSS, and JavaScript to build responsive and visually appealing web applications. Knowledge of design principles is also important in this role.

Back-end Developer: Back-end developers focus on the server-side of web development. They work with technologies like PHP, Python, Ruby, Node.js, and databases like MySQL or MongoDB to handle data, user authentication, and server operations.

Full Stack Developer: Full-stack developers have expertise in both front-end and back-end development. They are capable of building complete web applications, from the user interface to server-side functionality.

Web Designer: Web designers focus on the visual aspects of a website or web application. They work with graphic design tools, HTML, CSS, and sometimes JavaScript to create visually appealing and user-friendly layouts, graphics, and interfaces.

E-commerce Developer: E-commerce developers build and maintain online stores, integrating payment gateways, managing product databases, and ensuring a secure shopping experience.

Course Syllabus

1. Introduction to Web Development and Overview of MERN Stack

- Understanding the Basics of Web Development
- Overview of Front-end and Back-end Development
- Introduction to MERN Stack
- Setting Up Development Environment (Node.js, npm, MongoDB, etc.)

2. HTML, CSS, and Front-end Basics

- HTML5 and Semantic HTML
- CSS3 and Styling Techniques
- Responsive Design and CSS Frameworks (Bootstrap or Tailwind)

3. JavaScript and React.js (Front-end)

- Introduction to JavaScript and ES6
- React.js Basics and Components
- State and Props in React
- React Router for Navigation

4. Node.js and Express.js (Back-end)

- Introduction to Node.js
- Building RESTful APIs with Express.js
- Middleware and Routing
- Express.js and MongoDB Integration

5. MongoDB and Mongoose (Database)

- Introduction to MongoDB
- CRUD Operations in MongoDB
- Mongoose ODM (Object Data Modelling)
- Data Validation and Schema Design

6. Advanced React.js and State Management

- Advanced React.js and State Management
- React Hooks and Functional Components
- State Management with Context API and Redux
- Handling Forms in React

7. Git and GitHub for Version Control

- Introduction to version control with Git.
- Collaborative development workflows using GitHub. Cloning, branching, merging, and resolving conflicts.

8. Final Project: Full Stack Web Application

- Deployment and Project Development
- Deployment Strategies (Heroku, Netlify)
- Best Practices for Production Deployment

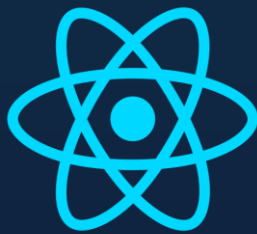# What You Will Learn in This Course

HTML

CSS

JavaScript

MongoDB

Express.js

React.js

Node.js

Mongoose

MongoDB Compass

VS Code

Netlify

RESTful API

Git & GitHub

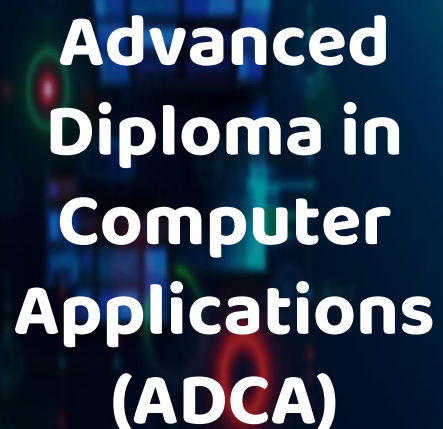**Git BASH**

Linux

Vercel

Our Popular Courses

Geek Certified Cyber Security Professional (GCCSP)

Web Designing & Development

Full Stack Web Development (MERN)

Advanced Diploma in Computer Applications (ADCA)

Contact Information

Ready to unlock a secure future? Reach out to us and let's code the path to success together!

Call Now **To Get Fee Details**

Call Now to Book 3-Days of **FREE** Demo Classes

📞 **+91 8882618533**

✉️ **info@geekinstitute.org**

💻 **www.geekinstitute.org**

🏫 **Kapashera, New Delhi Pin-110097**

f **/TheGeekInstitute**

📷 **@geekinstitute**

𝕏 **/Geek_Institute**

▶️ **@TheGeekInstitute**