



## **Full Stack Development Diploma**

### **Learn Core Technologies**

#### **Who can do?**

- New Comers
- Students who would like to get and grab the knowledge of Full stack development
- Already working class who are willing to update and learn the new methodologies of Full stack development
- Who would like to get great and reputable jobs in the market regarding Full stack development.

**100,000+ Students  
have been Trained**

since  
1997

**Program is  
offered by**

**3D EDUCATORS  
INTL**  
22 Years of  
Excellence in  
Training &  
Development

**Invest in  
People the  
only Asset  
that Appreciates**



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## About the Program

The “Full Stack Development with frontend and backend programming” Program has been conducted by Certified Consultant who having the vast experience of training, development & consulting. They have worked with various large Government, National, and multinational organizations at local and abroad and involved the development of web 2.0.

The Trainers who are conducting this program are have on the position of the following:

- Senior Developers
- E-Commerce Implementers
- ERP Deploy
- Block-chain developers

They trainers are foreign qualified and having the degree & certification of Ph.D, MBA, MSc, Microsoft Partner, MSCE, MCDBA, A+, Web Certified, CIW, Windows Certified.

## Inauguration

The Training Program will be inaugurated by a senior member of 3D EDUCATORS

## Program Structure

No of classes per week	<b>02 - Class</b>
Duration of each class	<b>02 – Hour</b>
Total Duration	<b>5 Months</b>

## Other Learning Activities

Classroom Assignments	<b>16</b>
Presentations by Trainees	<b>01</b>

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**Module 1:**

**Duration: 02 Months**

## Month 1: (FRONT END DEVELOPMENT)

### Week 1-2: Web Development Fundamentals and HTML 5

- Understand how websites work and how HTML, CSS and JavaScript contribute.
- Understand how the internet works.
- Start coding with HTML, CSS, and JavaScript.
- Learn key troubleshooting and debugging skills to apply to your projects
- Learn the anatomy of HTML syntax to structure your websites.
- Understand the HTML boilerplate and HTML document types.
- How to structure text in HTML.
- How to structure HTML lists to create unordered and ordered lists.
- How to insert images using HTML
- How to create hyperlinks using anchor tags.
- Understand how to use HTML tables for content.
- How to use tables for layout.
- Learn HTML best practices.
- Understand about HTML forms and create a simple contact me form.
- HTML Divs and how to separate content for CSS styling.

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## Module 1:

Duration: 02 Months

### Month 1: (FRONT END DEVELOPMENT)

#### Week 3-4: Styling the HTML with CSS-3

- Understand what cascading style sheets are and how you can use it to style your website.
- How to use CSS selectors and properties.
- Learn about how to use inline, internal and external CSS.
- Understand CSS coding best practices.
- Learn about CSS sizing methods.
- Learn the anatomy of CSS syntax and structure.
- CSS specificity and implementing style hierarchy.
- Class vs. Ids and how to target each.
- CSS display and how to implement layout.
- How to use CSS static, relative and absolute positioning systems.
- Font styling using CSS and web safe fonts.
- Centering elements using CSS.
- Website design fundamentals and typography.
- How to use CSS float and clear.
- How combine CSS selectors and understand selector priority.

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**Module 2:**

**Duration: 02 Months**

## Month 2

### Week 1-2: Bootstrap (Pre designed CSS)

- Learn the fundamentals of implementing responsive web design.
- How to use flowcharts to mockup and wireframe websites.
- The fundamentals of UI design for websites.
- How to install the Bootstrap framework.
- Understanding the Bootstrap grid layout system.
- How to use bootstrap containers to layout your website easily.
- Learn to use other Bootstrap components such as buttons.
- Adding symbols using Font Awesome.
- Learn to use Bootstrap carousels.
- Add Bootstrap cards to your website.
- Using Bootstrap navigation bars

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## Module 2:

Duration: 02 Months

### Week 3-4: JavaScript ES-6

- Starting code with alerts and prompts.
- Understand Variables and Data Types in JavaScript
- Variable naming in JS
- Working with strings and numbers
- Logical operators
- Loops, collections and Conditionals.
- Functions and invocation patterns
- Discussion of ECMAScripts
- Intermediate JavaScript
- Learn to use JS Expressions, Operators, Statements and Declarations
- Object-Oriented Programming
- JS Objects and Prototypes
- `This`, Scope and Closures
- Objects and Prototypes
- Refactoring and Debugging
- Learn the tree structure of HTML based websites.
- Traverse through the document using object notation.
- Separation of concerns and coding best practices.
- Manipulate and change the HTML elements using your understanding of the DOM.

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**Module 2:**

**Duration: 02 Months**

## Month 3

### Week 1-2: Linux Command line

- How to use basic bash commands in a Unix/Linux Terminal.
- How to manipulate files and folders without needing a graphical user interface.
- How to download and install to your computer-using command line
- Use the Linux command line to become a power user and write bash commands.

### Week 3-4: GIT github and Version Control

- Learn and understand git, GitHub and version control.
- Using git for version control and collaboration
- Git forking, branching and cloning
- Using GitHub as a remote repository
- Checkout and rolling back changes with git
- Using git and GitHub with vscode/Using git for version control and collaboration
- Git forking, branching and cloning
- Using GitHub as a remote repository
- Checkout and rolling back changes with git
- Using git and GitHub with vscode



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**Module 3:**

**Duration: 02 Months**

## Month -4

### Week 4: Application Programming Interface-APIs

- Understand what APIs are and how they work.
- HTTP in Depth
- Calling APIs
- Reading API documentation
- Basic API Authentication
- Server to server communication JSON vs. XML, sending data over the wire.

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**Module 4:**

**Duration: 04 Months**

## Month -4

### Week -1: Database Fundamentals

- Data Relationships
- Designing a Data Model
- Relational Databases
- Alternative Databases
- Entity Relationship Modelling (ERM) and Object Relational Mapping (ORM)

### Week -2: SQL Databases

- Working with Database Schemas
- Create-Read-Update-Destroy (CRUD)
- Database Joins
- Querying SQL databases

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## Module 4:

Duration: 04 Months

### Week -3: Mongo-DB

- Serialization
- How to model NoSQL data
- Document Databases (MongoDB)
- Create-Read-Update-Destroy (CRUD)
- NoSQL Best Practices
- Mongo Shell and command line use
- Installing MongoDB
- Mapping relationships with MongoDB
- Using an object-data modelling library (Mongoose) to work easily with your data.

### Week -4: Deployment

- Understand hosting and deployment.
- Hosting static websites with GitHub Pages.
- Deploying server based applications with Heroku.
- Deploying Databases with Mongo Atlas.

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**Module 5:**

**Duration: 05 Months**

## Month -5

### Week 1: Building Restful APIs

- Understand REST and guiding principles behind API design.
- Learn to work with a MongoDB GUI Robo 3T
- Implementing GET, POST, PUT, PATCH and DELETE by creating a public API from scratch.
- Understand and use chained route handlers from Express.

### Week 2: Authentication and Security

- Understand the need for authentication and keeping user details secure.
- Learn about Encryption and use encryption to keep your database secure.
- Learn and implement Hashing and Salting with bcrypt Using Sessions and Cookies to persist user log in sessions.
- Setting up local authentication from scratch.
- Implementing Passport to authenticate users quickly and effectively.
- Understand and use environment variables to keep secret keys secure.
- Understand and use OAuth 2.0 to log in users using Google and Facebook.

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## All Modules Summary

Duration: 04

### FRONTEND DEVELOPMENT (2 months)

#### Month1

- Week 1-2: Web Development Fundamentals and HTML 5
- Week 3-4: Styling the HTML with CSS-3

#### Month 2

- Week 1-2: Bootstrap (Pre designed CSS)
- Week 3-4: JavaScript ES-6

### BACKEND DEVELOPMENT (4 months)

#### Months 3

- Web API Development

#### Month 4

- Database fundamental
- SQL Database
- Mongo DB

#### Months 5

- Week 1: Building Restful APIs
- Week 2: Authentication And Security
- Week 3-4: React.JS

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## TERMS & CONDITIONS

### WITHDRAWAL FROM THE CERTIFICATION OR DIPLOMA

Students are not allowed to withdraw from the CERTIFICATION/DIPLOMA. If a student cannot continue the CERTIFICATION his/her fee will be forfeited.

### CONDUCT AND DISCIPLINE

A disciplinary action, leading to rustication, will be taken against students whose conduct is found objectionable at any time during the course of study. Reference will be made to 3D Educators code of conduct.

### EVALUATION AND GRADING

The performance of students is evaluated through continuous observation of a student's performance in the CERTIFICATION/DIPLOMA – class participation, submission of assignments, quizzes and exercises.

The student will be examined through three hourly exams conducted at the midterm and a final exam at the end of the program. Total marks for passing the CERTIFICATION/DIPLOMA will be 70 out of a total of 100.

Students who do not meet the attendance or any other eligibility criteria will not be allowed to appear in the final examination.

The following grading plan will be applicable for the CERTIFICATION/DIPLOMA:

A	B+	B	C+	C	F
87-100	81-86	72-80	66-71	60-65	Below 60

Students who are unable to appear for the final exam are required to submit a written application stating the reason for not appearing for the exam. 3D Educators reserves the right to approve or deny such applications. If approved, the student will be allowed to sit for the exam within one month. Failure to do so, the student will be resubmit the examination fee and sit the future schedule exam. Without passing of the exams no certification will be awarded.

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## ONLINE LIVE CLASSES FACILITY AVAILABLE

- Instructor Led Training
- Real Time Presentations
- Interactive Classes
- Complete Notes and Other Stuff shall be provided through our Secure Student Login Member's Area
- For Online Live Classes, you may please download the Admission Form through our website <http://www.3deducators.com>. Fill it properly and attached the required document along with Picture and send back to [info@3deducators.com](mailto:info@3deducators.com) with scanned fee submitted voucher in the bank.
- For Pakistan you may submit the fee at any MCB Branch with the title of "3D EDUCATORS-TRAINERS & CONSULTANTS".
- If you are outside Pakistan then you may transfer via Bank to Bank or any western union, Fast Track, Money Gram or else International Transfer Body.
- After Admission, if you don't have GMAIL Account then you are requested to kindly make one GMAIL Account and shared it [info@3deducators.com](mailto:info@3deducators.com). Then further correspondence shall be made by our institute official.
- Extra Bandwidth Charges shall be incurred.

## DISTANCE NOT MATTER

You can join in the live classes Sessions of 3D EDUCATORS – TRAINERS & CONSULTANTS from anywhere of the world.

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## PRECAUTIONARY MEASURES

- During Classes, you are requested to make sure that you are in isolated room, where no noise should be there except your voice.
- Kindly Switch Off your Cell Phone during the class, because it will disturb the quorum of class.
- If you have taken the admission in the course online lonely, then ethically it is recommended and suggested that you alone in the class.
- Recording of Lectures are not allowed at your end.

This world is emerging and growing in the 21st Century very rapidly because of latest and remarkable technologies and its advancement. Due to advancement of technology, we 3D EDUCATORS offer Live Interactive class sessions

3D EDUCATORS believe on Information Technology and its systems. Now you can also avail this facility at your home.

## CONTACT US

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<http://www.3deducators.com>

Get the Admission Form

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