

SHAPEAI

INDUSTRIAL TRAINING SYLLABUS

Full Stack Web Development

LEARN FROM PEOPLE AT:

Google ORACLE SONY

Morgan
Stanley

OVERVIEW

The goal of this Industrial Training Program is to equip students with the unique skills they need to build database-backed APIs and web applications with the proper industry-level front-end as well as scale up the deployment for the millions. A graduate of this program will be able to design and build databases for software applications, create and deploy database-backed web APIs, and secure and manage user authentication and access control for an application backend. They will be able to build a production-level frontend according to the industrial standards. Students will also learn how to deploy an entire web application to the cloud using Docker and Kubernetes and how to maintain and scale them.

Prerequisite Knowledge: You are not supposed to have any prior programming knowledge. However, you are expected to know the basics of differential calculus.

WHY JOIN US?



Complementary videos on Programming in C++ and Data Structure and Algorithms



Competitive Programming practice questions on a daily basis



2-hour LIVE Classes 5-days a week



Recordings available of LIVE classes



2-hour LIVE Doubt Sessions 5-days a week



Interview Preparation



Certification and Letter of Recommendation



Hands-on projects



Instructor from top MNCs

DATA STRUCTURES AND ALGORITHMS

You will be taught how to program in C++ (a high-performance programming language) and gain knowledge of different data structures and algorithms that can be implemented to solve an open-ended problem.

Topics Included

Introduction to Programming in C++ | Mathematics | BitManipulation | Recursion | Arrays | Searching | Sorting | Matrix | Hashing | Strings | Linked Lists | Stack | Queue | Deque | Trees and BST | Heap | Graph | Greedy Algorithms | BackTracking | Dynamic Programming | Trie | Segment and Binary Indexed Trees | Disjoint Sets

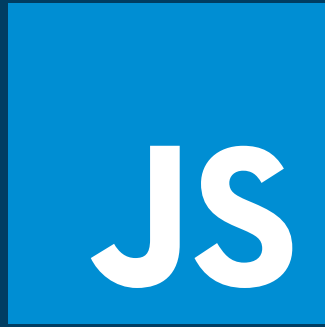
WEB DEVELOPMENT FUNDAMENTALS

We will start with the fundamentals that are essential to become a web developer.

Topics Included

- web protocols - HTTP, HTTPS etc
- HTML
- CSS
- Git, GitHub, and Version control
- Responsive Design with CSS
- Grid and Box Layouts
- Tailwind CSS
- Bootstrap CSS
- JavaScript ES6

TECH STACK



VIEW
WORK
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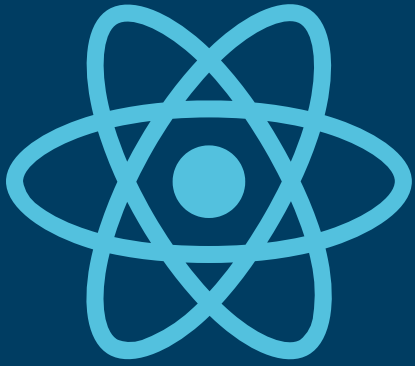
FRONT END DEVELOPMENT WITH REACT

We will learn how about analyzing and deciding on components with the state that can be reused to build a scalable UI.

Topics Included

- Getting Started with React
- Component Life Cycle Methods
- React Functional Components
- Webpack
- Using a Third-Party Component 4 lectures
- Styling React
- Routing in React
- React Hooks
- State Management In React with Redux
- Connecting To Backend

TECH STACK



VIEW
REACT
NEXT
JAVASCRIPT

BACKEND DEVELOPMENT

We will learn about architecting & building a scalable and secure backend for an application of any size.

Topics Included:

- NodeJS
- Express
- Microservices with Node & Express
- Integrating MongoDB
- Validation and Error handling
- Building RESTful APIs with Node, Express & MongoDB
- Authentication and Security

TECH STACK



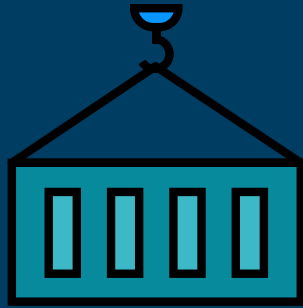
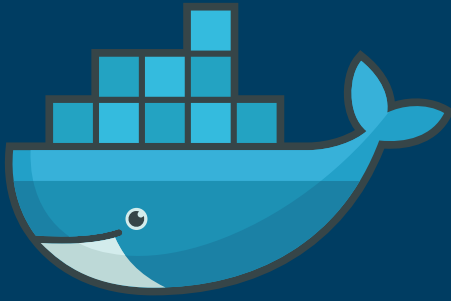
DEV - OPS

By leveraging the power of containers & CI/CD, learn how to securely move your app to the cloud and learn how to set up the Kubernetes cluster to manage your application in production.

Topics Included:

- Docker & Containers
 - Building and manipulating single and multiple containers with Docker
 - Docker volumes and docker-compose
 - Containerizing an application with docker
 - Securing with Synk
- Automate with CI/CD
 - CI/CD service setup
 - Write CI/CD scripts
 - Automate deployments and testing with CI/CD

TECH STACK



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DEV-OPS CONTINUED

Topics Included:

- Kubernetes - container orchestration
 - K8s commands
 - Multi-container app with K8s
 - Ingress to handle traffic
 - Deployment with K8s
 - Custom Domain & SSL (HTTPS)

PROJECTS



BOOK MY SHOW CLONE

Here you will be making a Clone for the Book my show Website using React and Redux.

ZOMATO FRONT END

Build UI for the master project ie. Zomato Clone and redux action to communicate with the backend.



PROJECTS



BOOK MANAGEMENT API

Make a website for managing different books in a library.

ZOMATO BACK END

Designing and building APIs for the master project ie. Zomato Clone with node, express & mongoDB



PROJECTS



TASK MANAGEMENT APP

Make a Task Management app using Tailwind CSS and JavaScript and deploy it to the Web using AWS.

ZOMATO DEPLOYMENT AND DEVOPS

We will Deploy the Zomato Website to AWS and use the Docket and Kubernetes to orchestrate it.



PROJECTS



PERSONAL PORTFOLIO

Create your very own Personal Portfolio to share with your friends or add to your resume.

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ABOUT THE COURSE



DURATION
2.5 Months



PRICE
INR 5500

LIMITED SEATS AVAILABLE

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