devtown

INDUSTRIAL TRAINING SYLLABUS

Full Stack Web Development

LEARN FROM PEOPLE AT:

Google   Jio   Goldman Sachs   AMERICAN EXPRESS

OVERVIEW

The goal of this Training and Internship Program is to equip interns 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 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

15+ Hands-on projects

Instructor from top MNCs

meet your mentors

You learn better when it's from the industry experts. We choose only the best for you so you only lead success.

Aradhana Kund
Google Summer of Code

Dipayan Ghoshal
amazon

Harsh Akshit
Google · OWASP

Hitik Kumar
CODECHEF

Khushboo Tayal
McKinsey & Company

Krishna Sampat
Morgan Stanley

Madhav Jauhari
AMERICAN EXPRESS

Nandini Jalan
Google

Nikhil Agarwal
SONY

Nikhil Bartwal
TensorFlow

Pavan Kumar
devtown

Rahul Harlalka
Goldman Sachs

Sahil Rahman
HP · PORSCHE

Shaurya Sinha
Jio · devtown
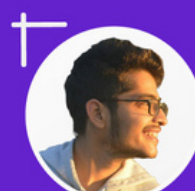
Vishal Jain
ORACLE

Sushant Shukla
CISCO

be a part of

devtown

01 - TOPICS

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
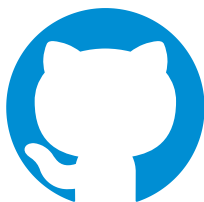
WEB DEVELOPMENT FUNDAMENTALS

We will start with the fundamentals that are essential to becoming 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

FRONT END DEVELOPMENT WITH REACT

We will learn how about analyzing and decide 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 Third-Party Component4 lectures | Styling React | Routing in React | React Hooks | State Management In React with Redux | Connecting To Backend
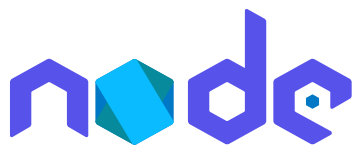
TECH STACK
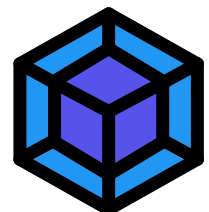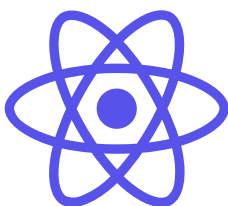
03 - TOPICS

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

04 - TOPICS

DEV-OPS

By leveraging the power of containers & CICD, 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 CICD
  - CICD service setup
  - Write CICD scripts
  - Automate deployments and testing with CICD

TECH STACK
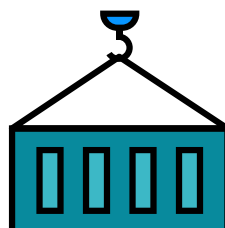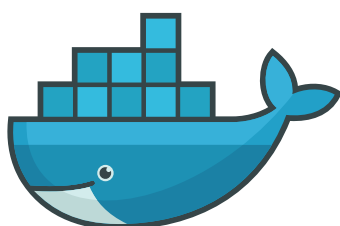
04 - TOPICS

DEV-OPS CONTINUED

Topics Included:

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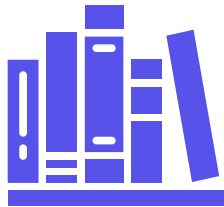   - Deployment with K8s
    - Custom Domain & SSL (HTTPS)

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.

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

TASK MANAGEMENT APP

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

PERSONAL PORTFOLIO

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

Hurry up!
Seats are limited

EMI option available on the selected
payment methods on our website

www.devtown.in