



PG CERTIFICATION IN **FULL STACK DEVELOPMENT**

FRONT END

BACK END





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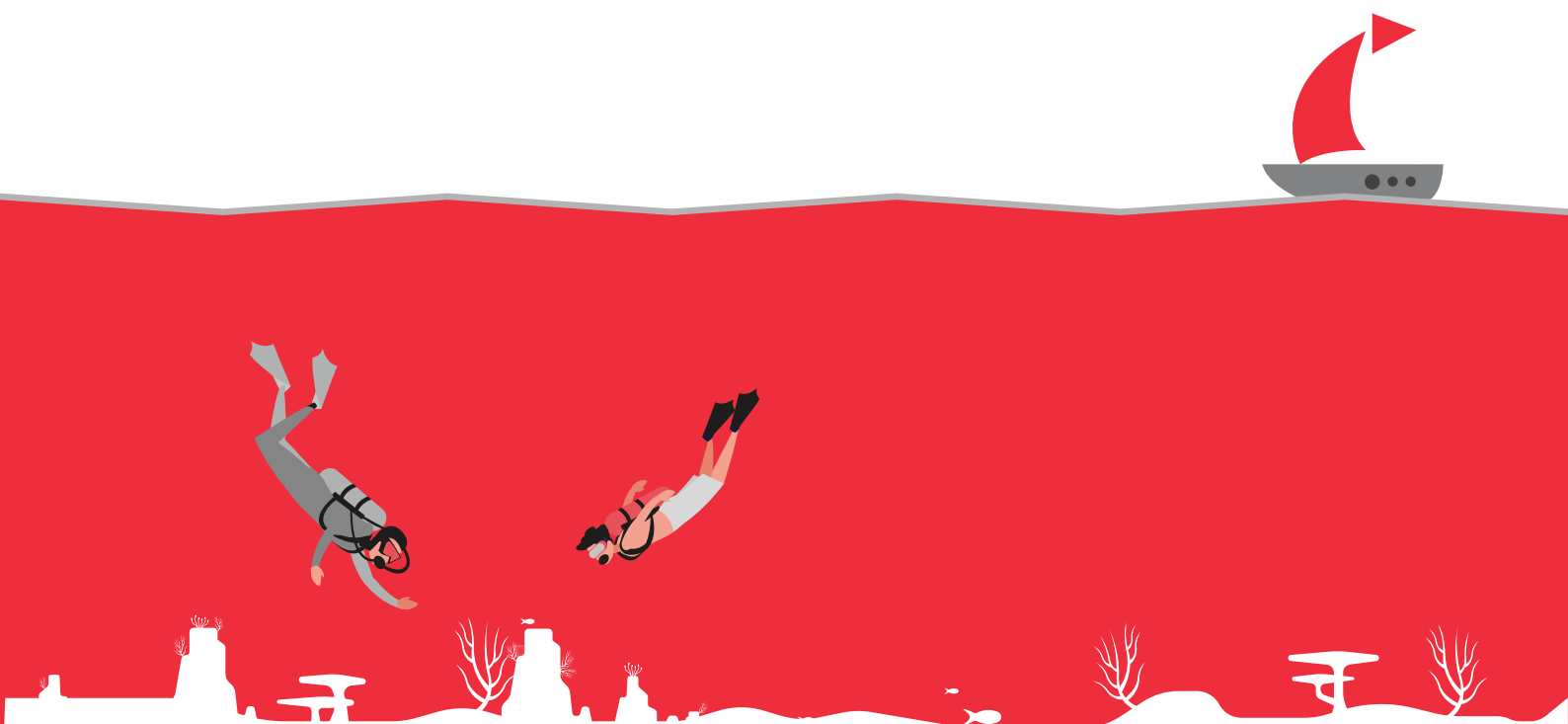
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ABOUT UPGRAD

upGrad is an online education platform to help individuals develop their professional potential in the most engaging learning environment. We, at upGrad, aim to upskill working professionals in new-age emerging technologies. With an exponential increase in demand for skilled professionals.

With our meticulously designed PG Certification in Full Stack Development, we equip you with conceptual knowledge, give you hands-on experience and ensure you start a successful career in the industry. At upGrad, we aim to significantly leverage technology in order to transform the way education is delivered in the digital age.



“

**Our aim is simple:
We strive to create high-impact,
hands-on experiences that prepare
learners for meaningful and
productive careers.**

”

Ronnie Screwvala

Co-founder & Executive
Chairman

upGrad








INTRODUCTION TO THE PROGRAM

The PG Certification in Full Stack Development, offered by upGrad, is a 5 month program that focuses on polishing skills in the tech domain, and employability.

We are confident that every candidate can receive a placement offer if they successfully complete our program. In case that doesn't happen, upGrad will refund the program fee.

This program will help you build strong fundamentals of Data Structures & Algorithms, Object-oriented Design, Analysis & Programming in Java, HTML, CSS along with MERN stack (MongoDB, ExpressJS, ReactJS, NodeJS). These concepts will be taught through immersive classroom sessions from industry experts, assignments, projects and doubt solving sessions. You will go through regular assessments and mock interviews to identify specific areas of improvement. This is a Full-time Program and we expect every candidate to make the best use of available resources and dedicate at least 45 hours/week to secure the outcomes.

Who is this program for?

-  First-time job seekers i.e. either final year students or recent unemployed graduates
-  Everyone with an interest in learning full-stack development/software development jobs
-  Check eligibility criteria for more details



WHY UPGRAD'S PGC IN FULL STACK DEVELOPMENT?

Program Highlights:



Placement opportunity
upon program completion



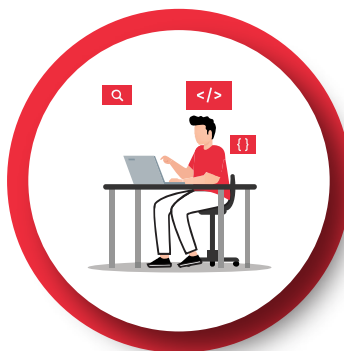
Certification in
Full Stack Development



Sessions with
industry experts



Real-time projects to
build your portfolio



On-the-go learning



PROGRAM CURRICULUM

- 01** **FOUNDATIONS OF PROGRAMMING
(PREPARATORY COURSE)** (30 hours)
 - Programming 101 in Java
- 02** **FOUNDATIONS OF PROGRAMMING
(CRASH COURSE)** (26 hours)
 - Understanding Java
- 03** **OBJECT-ORIENTED ANALYSIS, DESIGN
& PROGRAMMING** (52.5 hours)
 - Version Control System (6.5 hours)
 - Object-Oriented Analysis & Design (13 hours)
 - Object-Oriented Programming (20 hours)
 - PROJECT** (13 hours)
- 04** **DATA STRUCTURES & ALGORITHMS** (105 hours)
 - Problem-Solving (26 hours)
 - Building Blocks (26 hours)
 - Elementary Data Structures (26 hours)
 - Advanced Data Structures (26 hours)
 - HACKATHON** (1 hours)
- 05** **INTRODUCTION TO WEB DEVELOPMENT** (68 hours)
 - Basics of Internet and Networking (10 hours)
 - HTML (18 hours)
 - CSS and Bootstrap (35 hours)
 - PROJECT** (5 hours)

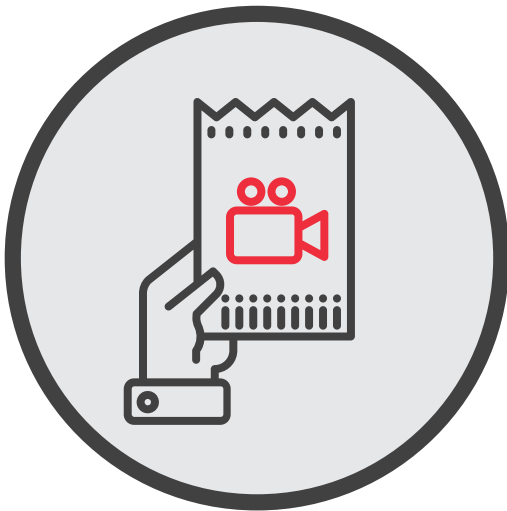




06	JAVASCRIPT	(52 hours)
	<ul style="list-style-type: none"> Basics of JS (10 hours) Intermediate JS concepts (10 hours) DOM Manipulation (10 hours) ES6 (10 hours) Advanced JS Concepts (10 hours) 	
	PROJECT	(2 hours)
07	SERVER SIDE COMMUNICATION	(15 hours)
	<ul style="list-style-type: none"> JSON + AJAX (13 hours) 	
	PROJECT	(2 hours)
08	REACT + REDUX	(92 hours)
	<ul style="list-style-type: none"> Basics of React (23 hours) React Events and Forms (10 hours) React Routing (18 hours) Single Page Applications (13 hours) Testing React application (5 hours) Redux (13 hours) 	
	PROJECT	(10 hours)
09	NODEJS, EXPRESSJS AND MONGODB	(87 hours)
	<ul style="list-style-type: none"> Introduction to NodeJS (15 hours) Introduction to ExpressJS (5 hours) Routing Parameters (8 hours) Introduction to Databases (10 hours) Introduction to MongoDB (5 hours) Express + MongoDB (16 hours) Introduction to Mongoose (5 hours) User Authentication (5 hours) Unit Testing and Mocking (8 hours) 	
	PROJECT	(10 hours)
10	CAPSTONE PROJECT	(45 hours)



SAMPLE COURSE PROJECTS



MOVIE BOOKING APPLICATION

Learn how to build a full-stack application starting from designing the schema using MySQL, implementing Spring to develop the backend and build the front-end using technologies such as HTML, CSS and JavaScript. Develop an online movie booking application that has functions like book a ticket, search for movies, register etc. By working on this project, one will get a hands-on experience of how to create a full-stack web application.

CAR RENTING APPLICATION

Develop an application to rent cars that has functions such as create a profile, add cars, book cars for a specified duration. Learn how to design schema for a real-world application, how to create the backend for a web application in Spring Boot and how to interact with the database layer for performing CRUD operations, how to expose the functionalities of the backend application using REST APIs. Also, learn how a dynamic real-time website can be built using simple HTML, CSS, JavaScript and AJAX.



E-COMMERCE WEBSITE

Through this project, learn how to create the backend for a web application in Spring Boot and frontend using CSS and JavaScript. In the backend, learn how to interact with the database layer for performing CRUD operations and how to use this data for satisfying the business requirements. In the frontend, learn how to structure and create various components of the application. Also, integrate the REST APIs with the front end and display all the required data using service calls.



SAMPLE COURSE PROJECTS



UBANK

Develop a banking application that allows you to deposit, withdraw and transfer an amount. Learn how to use different features of Java such as exception handling, collections, JDBC, file IO, multithreading, to create a Java application.

UBLOG

Develop a blogging website, similar to Medium, to create and post blogs using Java. Create features such as post blogs, search blogs by email ids, delete your blog, filter blogs based on a topic. Also, learn how to store data in a database.





PROGRAM HIGHLIGHTS

PROGRAM DURATION

5 months

ADMISSIONS PROCEDURE

Step 1 : Submit your application and appear for a screening test on
Cognitive Aptitude & Essay Writing

Step 2: Appear for Screening interview.

Program offer released to students who clear all screening rounds.

Step 3: Accept the program offer and block your seat.

Close the balance fee to start your learning journey with upGrad

PROGRAM FEE:

INR 99,000 (Inclusive of taxes)

ELIGIBILITY CRITERIA:

- 2016-20 passout from BE/BTech/ME/MTech - any stream (or)
BSc/MSc - CS/IT stream only (or) BCA/MCA
- Minimum 55% in Graduation & Post-Graduation
- Minimum 60% in 10th & 12th/Diploma

FOR FURTHER DETAILS, CONTACT US AT:

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