



NEXT-GEN WEB DEVELOPMENT



NEXT.js

 **tailwindcss**



DEPLOYMENT &
HOSTING



mongoDB



A Brief About **UPFLAIRS**

UpFlairs is an innovative **educational technology** company with a clear mission to elevate the skills and employability of students throughout India.

Our dedicated team is committed to fostering the next generation of tech talent, equipping them with cutting-edge skills in emerging technologies and has educated more than 47K students all over the globe including IITs, NITs, Deemed Universities and other colleges.

We offer the courses that are most trending technologies of the recent era in the fields like **AI/ML, Data Science, Cloud Computing, DevOps, Full Stack Web Development, Embedded Systems, IoT, and Robotics**. These courses are meticulously designed to provide students with the practical skills and knowledge required to excel in tech-driven careers, making them not just job-ready but industry leaders of tomorrow.

We are not only limited to training the youth of the country but also provide Lab setups to various Colleges and Universities and Project solutions to other companies for the domains like **AI-ML, IOT , ROBOTICS AND CLOUD**.



NEXT-GEN WEB DEVELOPMENT

Duration – 20 Hours

PREREQUISITE: HTML, BASICS OF CSS, BASICS OF JAVASCRIPT

1.	TAILWIND CSS (4 Hours)	<ul style="list-style-type: none"> • What is Tailwind CSS? • Responsive Website Design with Tailwind CSS • Framework vs Library • Adding Tailwind CSS • Container in Tailwind CSS • Grid System (Size) • Button Styles • Forms • Tables • Images • Pagination • Progress Bars • Dropdown Menus • Animations (GIF and Custom Transitions)
2.	NEXT JS (4 Hours)	<ul style="list-style-type: none"> • Understanding Next.JS • Installing Node.js • Setting up a Next.js Project • Folder Structure of a Next.js App • Next.js Pages and Components • JSX in Next.js • ES Module System in Next.js • React Fragments in Next.js • Styling in Next.js (CSS Modules, Tailwind CSS, Styled JSX) • Props and Data Flow in Next.js • List and Keys in Next.js • Conditional Rendering in Next.js • Event Handling in Next.js • State Management in Next.js • Forms in Next.js • Next.js API Routes • React Hooks in Next.js • Fetching Data in Next.js • Routing in Next.js • Incremental Static Regeneration (ISR) • Deploying Next.js Applications (Vercel or other platforms)
3.	NODE JS (3 Hours)	<ul style="list-style-type: none"> • Node • Installation • REPL • NPM • Module system in Node(EJS vs CJS) • Node modules • Asynchronous Programming

		<ul style="list-style-type: none"> • HTTP Module • Creating a basic HTTP server • Handling requests and responses • Serving different type of content
4.	EXPRESS JS (3 hours)	<ul style="list-style-type: none"> • What is express? • Creating a Server using Express • Understanding Request and Response • Creating routes and handling requests • Request methods (get, post, put, delete) • Serving Static Files • Create Rest API • End Point • Route API • Mongoose (Connecting Express with MongoDB) • Create ,delete, upload ,Read Data from mongoDB
5.	MONGO DB (4 Hours)	<ul style="list-style-type: none"> • MongoDB Overview <ul style="list-style-type: none"> ◦ Introduction to MongoDB ◦ Features and Benefits of MongoDB ◦ Comparison with traditional database • Creating a Database in MongoDB <ul style="list-style-type: none"> ◦ Installing MongoDB locally or using cloud services like MongoDB Atlas ◦ Creating a database and collections • CRUD Operations in MongoDB <ul style="list-style-type: none"> ◦ Create: insertOne, insertMany ◦ Read: find, findOne, Query Filters ◦ Update: updateOne, updateMany, \$set, \$inc ◦ Delete: deleteOne, deleteMany • Indexes in MongoDB <ul style="list-style-type: none"> ◦ What are indexes? ◦ Creating and managing indexes ◦ Importance of indexes for query performance
	Capstone Project (2 Hours)	<p><i>Capstone Project: "Save Data From Frontend and Data Collection"</i></p> <ul style="list-style-type: none"> • <i>Save User Inputs: Build a feature where users can input data through forms on the front end, save it to a database (e.g., MongoDB), and retrieve it for display. Use Next.js API routes for backend processing.</i> • <i>Feedback Collection System: Create a data collection application where users can submit feedback or survey responses. Store the data in a database and display analytics or summaries on a dashboard.</i> • <i>E-Commerce Platform: Build an online store where users can browse products, add them to a cart, and complete a purchase. Integrate features like authentication, payment gateway (e.g., Stripe), and a responsive UI.</i>

NIT,
Jalandhar

Glance Upflairs

Delhi Technical
University

NIFFT,
Ranchi

Banasthali
Vidyapith

JECRC,
Jaipur

Arya College,
Jaipur

Poornima
College, Jaipur

SKIT, Jaipur



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