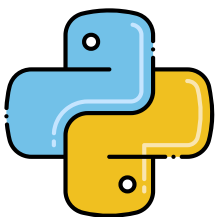




IDM TECHPARK
GUIDE'S FOR PERFECT CAREER PATHWAY



Python Full Stack Course Syllabus



N.S.D.C.
National
Skill Development
Corporation



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About Us

IDMTECHPARK global retail & corporate training solutions provider in Coimbatore, Erode, Trichy & Salem that offers a comprehensive range of training and placement services for both fresher's and professionals seeking new opportunities. The company commenced its IT training business in 2016. A pioneer in IT education, over the years, we have trained over 50k students. Idmtechpark has a wide range of courses, maintains education standards & provides placement assistance.

www.idmtechparkcoimbatore.com
www.idmtechparkerode.com

+91 9585305700

**2**

About IDMTECHpark Education Quality

IDMTECHPARK is managed and developed by industry specialists with more than 8 years of expertise in the field. IDMTECHPARK offers a staff of highly skilled professional trainers who deliver effective IT training in a friendly setting, concentrating on the needs of each individual to help them succeed in a demanding work world. In the book of career and success, our staff never leaves a page unturned.

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IDMTECHPARK's versatile instructor-led training class rooms and lower-class sizes enable people to engage more easily and absorb knowledge, resulting in remarkable results for both themselves and the organizations for which they work. Our training programmes are adaptable and customizable to ensure that each participant gets the most out of their time with us. IDMTECHPARK focuses in providing hands-on IT training in over 30 different courses.

- We teach in-demand courses
- We provide impactful learning material
- Our teachers are well-selected & trained
- We follow world-class teaching methods
- Our courses include E-Projects
- We conduct technical workshops
- Exams are held and based on Exams providing Certification
- Certificates are recognized the world over
- Our course timings are flexible



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Our Recent Placement

Idmtechpark assists students in getting job placements on successful completion of their courses. Idmtechpark also provides recruitment assistance to organizations. Idmtechpark students are shortlisted based on the organization's requirement. To make students job-ready, Idmtechpark conducts workshops e.g. How to do Group Discussions, how to behave in a Personal Interview. From time to time, job fairs & campus recruitments are conducted. Workplace skills such as time management, making effective presentations and communication skills are also provided. All this helps students find appropriate jobs in the IT industry while also helping save companies recruitment costs.

Krishnaveni M

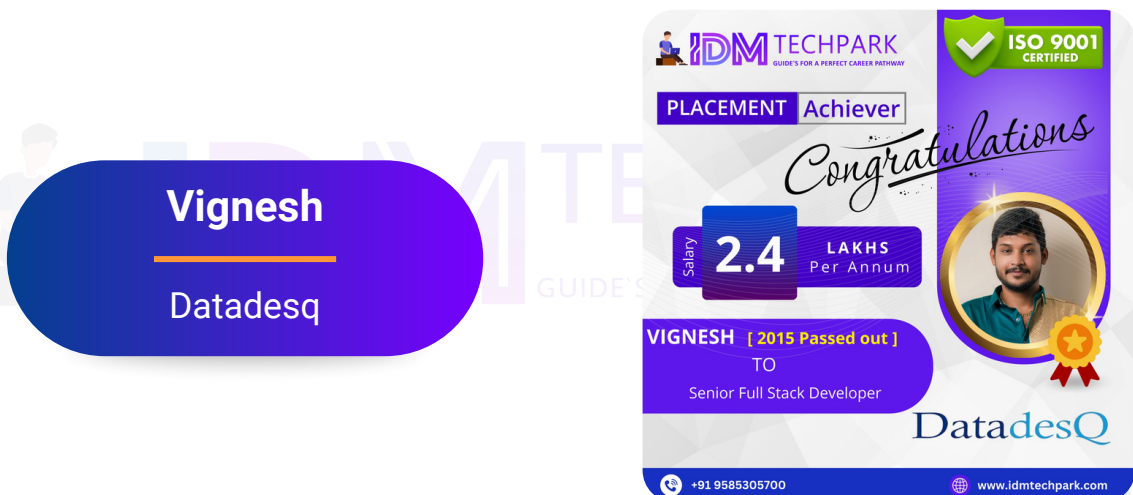
Frutterlabs





Joshwa

Xccessor



Vignesh

Datadesq



Madhumitha

Accenture

Keerthana

AJS



Brindha Boopathi

AJS



Kavın Kumar

AJS

Ajithkumar

AJS



Gowthami

Genpact



Surya

ZUCI

Pavithra

Vel Info Tech



Poovitha

Gray Matter



Ramesh

TDT

Siva Sankar
ST Cloudspark tech



Nabeel Hisham
VTail



Kalayarasan
Violet Infotech

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Our Alumni Working At



MODULE 1

Web Development Fundamentals

- What is Full Stack Development?
- Client-side vs Server-side
- HTTP, DNS, Hosting, Browsers
- Client-server architecture

MODULE 2

HTML5 Basics

- Page structure
- Forms & Inputs
- Tables, Media Tags
- Semantic Elements

MODULE 3

CSS3 & Styling

- Selectors, Box Model
- Flexbox & Grid
- Transitions & Animations
- Media Queries for responsiveness

MODULE 4

JavaScript Fundamentals

- Variables, Data types, Operators
- Loops, Conditions, Functions
- Events & DOM Manipulation
- ES6 Features (Arrow, Let/Const, Spread)

MODULE 5

Advanced JavaScript + Fetch API

- Async/Await, Promises
- JSON
- Error Handling
- Fetch API for making HTTP requests

MODULE 6

Frontend Framework – React.js / Vue.js

- Component Architecture
- Props & State
- Hooks / Lifecycle
- Routing (React Router / Vue Router)

MODULE 7

TypeScript (Optional)

- Static typing in frontend
- Interfaces, Enums
- Integration with React or Vue



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MODULE 8

Python Programming Fundamentals

- Syntax, Variables, Data types
- Functions, Conditions, Loops
- File Handling
- Object-Oriented Programming

MODULE 9

Python Advanced Concepts

- Exception Handling
- Decorators, Generators
- Lambda Functions
- Modules & Packages

MODULE 10

Git & GitHub for Version Control

- Git Commands (clone, commit, push)
- Branching & Pull Requests
- GitHub Projects & IssuesNPM/Yarn

MODULE 11

Backend Development with Flask

- Creating Flask app
- Routing & Blueprints
- Templates (Jinja2)
- Forms & File Upload

MODULE 12

Backend Development with Django

- Project vs App Structure
- Models, Views, Templates (MVT)
- Django Admin
- Django Forms

MODULE 13

Django ORM & Database Integration

- PostgreSQL / MySQL / SQLite
- CRUD Operations
- Relationships (One-to-many, Many-to-many)
- Django Migrations

MODULE 14

REST API with Django REST Framework

- Serializers
- ViewSets & Routers
- Authentication & Permissions
- API Testing with Postman

MODULE 15

Authentication & Authorization

- Django Authentication System
- Sessions vs Token
- JWT Authentication
- Social Login (OAuth with Google/Facebook)

MODULE 16

Frontend ↔ Backend Integration

- Connecting React to Django APIs
- Axios for API calls
- CORS configuration
- State syncing with APIs

MODULE 17

WebSockets & Real-Time Features

- Django Channels
- Chat Application
- Notifications in Real-time

MODULE 18

File Handling & Media Management

- Image/File Uploads in Django
- Static & Media Files
- Cloud Storage integration (AWS S3, Cloudinary)

MODULE 19

Unit Testing

- PyTest / Unittest (Python)
- React Testing Library / Jest (Frontend)
- Integration & API Testing



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MODULE 20

Deployment & DevOps

- Deploy Django App (Heroku, Railway, PythonAnywhere, Render)
- Static Files (Nginx/Gunicorn)
- Docker Basics
- CI/CD using GitHub Actions

MODULE 21

GraphQL (Optional Advanced)

- Basics of GraphQL
- Django + Graphene
- Queries, Mutations
- Apollo Client (Frontend)

MODULE 22

Security Best Practices

- CSRF & XSS protection
- Secure Password Storage
- Rate Limiting
- Django Security MiddlewareMulter / Cloudinary

MODULE 23

Performance Optimization

- Query Optimization
- Lazy Loading & Pagination
- Caching with Redis
- Image Optimization

MODULE 24

SEO & Web Analytic

- Meta tags & Head management
- Sitemap & robots.txt
- Google Analytics
- SEO strategies for Django & React

MODULE 25

Capstone Projects + Resume Building

- Portfolio Website (React + Django)
- E-commerce / Blog / Social App
- Resume Optimization for Full Stack Jobs
- Mock Interviews & GitHub Portfolio Review

Thank You

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