

**KodNest**

# Java and Python Full-stack Development



**Online & Offline**



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Unlock Your Potential



# Transforming tech education





## Transforming Tech Education

In a world that's constantly evolving, dreams are the sparks that ignite the flame of change. At KodNest, we believe that every student, no matter their background, has the right to dream big and aspire to greatness. We don't just believe in dreams; we believe in the power of turning those dreams into reality.

Our mission at KodNest is to democratize tech education, making it accessible, affordable, and achievable for everyone. We believe that education is more than just acquiring knowledge. It's about sparking curiosity, nurturing talent, and unlocking potential. At KodNest, we don't just prepare you for a job in tech, we prepare you for a thriving career, a lifelong journey of growth and learning.

Life may not always equip us with the same starting point, but at KodNest, we believe in the power of dreams. Regardless of your background, if you dare to dream big, we promise to stand by you. Our dedicated team of mentors and trainers work tirelessly to bring out the best in you, transforming your aspirations into reality.

At KodNest, we're not just committed to your education - we're committed to your success. With our industry-aligned curriculum, state-of-the-art infrastructure, and unparalleled placement support, we ensure that the world of opportunities is at your fingertips. So, step into the world of KodNest and let us together redefine what's possible. Because at KodNest, we believe that every dream deserves a chance to soar.

**Welcome to KodNest** - where dreams meet determination, and aspirations meet achievement. Welcome to your future in tech.

**Join us at KodNest** - Let's dream, learn, innovate, and succeed - together.

# Why **K**odNest

Because Your Tech Career Deserves the Best



# Why KodNest



## Your Path to Excellence

Unleash your potential with KodNest, where we don't just teach - we inspire. We empower you to dream, dare, and conquer the tech world with confidence and proficiency.



## Unlimited Placement Support

We provide endless support until you secure your First Dream Job.



## Affordable Quality Education

We believe in breaking barriers, not your bank balance. Offering high-quality education at an affordable cost, we ensure that dreams are not bound by finances.



## Cutting-Edge Course Content

Our curriculum is designed with an eye on the future, mirroring the latest industry trends and technologies. Stay ahead of the curve with KodNest.



## Technology-Fueled, Career-Focused Learning

At KodNest, technology isn't just a tool—it's the engine powering your entire journey from learning to landing your dream job. Our exclusive, AI-driven K-App is your one-stop solution for immersive courses, real-time practice, cutting-edge tech exploration, community support, doubt resolution, and streamlined placements. Everything you need to succeed is right at your fingertips.



## Hands-on Experience

Dive into the industry with our practical, real-world projects. Apply your newfound skills and hit the ground running from day one of your new job.

# Why KodNest



## Personalized Mentorship

Learn without fear, knowing you have a mentor to guide you. We provide individual mentorship to ensure you conquer every obstacle on your path to success.



## Our Flexibility, Your Comfort

With both online and offline courses, flexible payment options, and open eligibility, we've made sure that our courses cater to everyone.



## Our Courses

We offer two comprehensive courses - MCP1 (Java and Python Full Stack Development) and MCP2 (KodNest Premium Testing Module), designed to equip you with the essential skills for software development and testing.



## Our Clientele

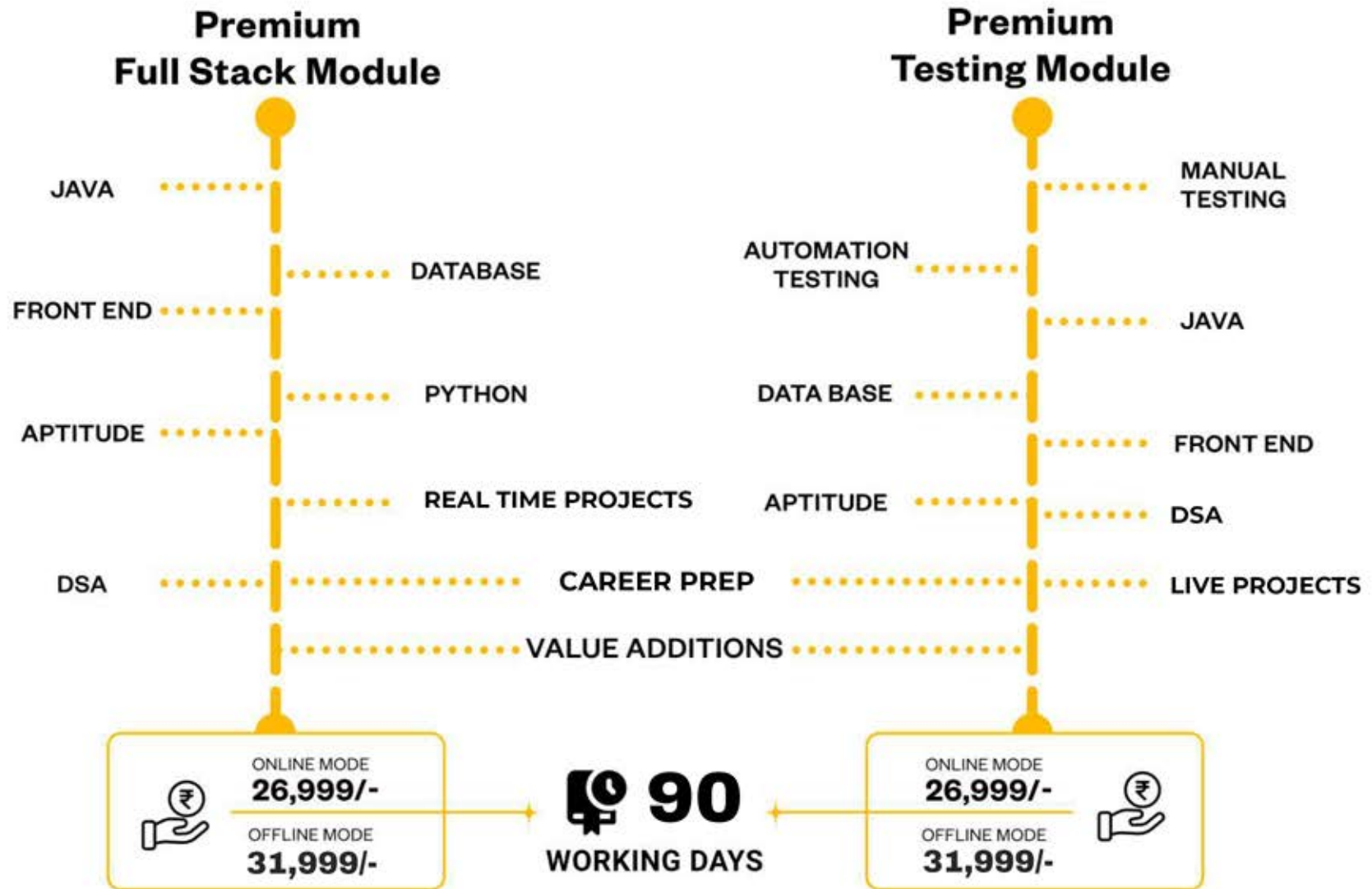
Our students have been placed in reputed companies across the industry, including Altimetrik, Amazon Data Services India Private Limited, Altisource, Capgemini, IBM, Intellect Design Arena Limited, and many more.



## Lifetime Access to Course Materials

Knowledge is timeless, and so is our course material. Gain lifetime access to course materials and stay updated, always.

# Your Career Paths



# Tech-Stack

KodNest Premium Course Modules



## JAVA FUNDAMENTALS

- Introduction to Java
- Basics of Programming in java
- Data types
- Operators
- Methods
- Cracking Coding (Beginners)

## DIVING INTO OOPS

- Introduction to OOP
- Static
- Inheritance
- Constructors
- Encapsulation
- Polymorphism
- Abstraction
- Packages

## PROGRAMMING ESSENTIALS

- Control constructs
- Cracking Coding (Intermediate)

## DATA STRUCTURES & ALGORITHMS

- Arrays
- Algorithms
- Strings
- Collections framework
- Cracking Coding (Advanced)

## ADVANCED JAVA

- Exception handling
- Multi-threading

## JDBC (JAVA DATABASE CONNECTIVITY)

- Introduction to JDBC
- Connecting to databases
- Performing CRUD operations
- Transaction Management

## DESIGN PATTERNS

- Introduction to design patterns
- Commonly used design patterns

## FRAMEWORKS LAYERS

- J2EE Fundamentals
- Client Server Architecture
- Web Application Architecture
- Introduction to Java Frameworks

## HIBERNATE FRAMEWORK

- What is ORM?
- Introduction to Hibernate Framework

- Maven tool
- Hibernate Configuration and SessionFactory
- Entity Mapping
- Hibernate Query Language (HQL)
- Caching and Performance Optimization

## SPRING BOOT FRAMEWORK

- Spring Tool Suite
- Setup and Installation
- Spring Core and IoC Container
- Dependency Injection (DI) in Spring
- Autowiring and Annotations
- Bean Life Cycle
- Aspect-Oriented Programming (AOP) with Spring
- Spring MVC
- Spring Boot Actuator

## API'S

- Spring REST: WebServices
- Spring REST : JSON Data Binding
- Spring REST : API Design Practices
- SpringBoot : REST CRUD API with Hibernate
- Swagger Documentation
- Microservices v/s Monolithic services

## UNIT TESTING IN JAVA

- Introduction to unit testing and JUnit
- Writing test cases and test suites

## JAVA NETWORKING

- Basics of networking in Java
- Sockets and ServerSockets

## INTRODUCING TO SQL

- Significance of Data
- What is a Database & DBMS?
- Relational DBMS v/s Non-Relational DBMS
- What is SQL?

## My SQL

- MySQL Overview
- DataTypes and Operators
- Constraints
- DDL Statements
- DML Statements
- Stored Procedures and Functions
- Indexes and Querying
- Triggers
- Joins

- Normalization
- Transaction Management
- Subqueries and nested queries
- Concurrency Control

## MONGODB

- MongoDB Overview
- Different types of Storing the Data
- Creating the Collection and Document
- Inserting the Values
- Different ways of Viewing the Data
- Data Modeling
- Schema Design
- Replica
- Index
- Sharding
- CRUD Operations

- Aggregation Framework

## ORACLE

- Overview of Oracle Database
- Data types in Oracle
- Constraints
- DDL commands: CREATE, ALTER, DROP
- DML commands: INSERT, UPDATE, DELETE, TRUNCATE
- Queries and Sub-queries
- Database Objects

**MODULE 1: THE WORLD OF WEB DEVELOPMENT**

- Basics of Front-End Development

**MODULE 2: HTML: STRUCTURING A WEB PAGE**

- Getting Started with HTML
- HTML Basic Tags
- Lists in HTML
- Tables in HTML
- Multimedia Tags in HTML
- More HTML Elements
- HTML Forms
- Semantic Tags
- SEO basics

**MODULE 3: CSS - STYLE A WEB PAGE**

- Getting Started with CSS
- CSS Basics

- CSS Box Model
- Positioning and Flexbox
- Grid Layouts
- Responsive Design
- Transitions and Animations

**MODULE 4: JAVASCRIPT - PROGRAMMING THE WEB**

- Introduction to JavaScript
- Control Structures
- Functions and Scope
- Promises & Closures
- DOM Manipulation
- Events and Event Handling
- Arrays and Objects
- Asynchronous JavaScript

## GIT AND VERSION CONTROL

- Introduction to Git
- Committing changes
- Pushing to a remote repository
- Dealing with merge conflicts
- Git installation and setup
- Basic operations in Git
- Branching and Merging
- Pushing to remote repositories

## REACT

- Introduction to React
- Setup and installation
- JavaScript Frameworks and Libraries
- JSX syntax
- State and Lifecycle Methods

- Handling Events in React
- React forms and input validation
- React router and client-side routing
- Redux for state management
- Asynchronous programming
- HTTP protocol and RESTful APIs

## TESTING IN REACT

- Introduction to testing React components
- Jest
- React Testing Library

## REACT DEVELOPER TOOLS

- Redux DevTools
- React DevTools

## PYTHON INTRODUCTION

- Fundamentals of Python Programming
- Features of Python
- Data types
- Control Constructs
- Methods
- Object Orientation

## PYTHON DEEP DIVE

- String overview
- String manipulation
- String in-built methods
- Encapsulation
- Constructors
- Inheritance
- Method Overriding
- Polymorphism

- Access Modifiers
- Decorators
- Operator Overloading
- Magic Methods
- Abstraction

## FILE HANDLING AND DATABASES IN PYTHON

- File Operations
- SQLite3
- PyMongo

## ADVANCED PYTHON CONCEPTS

- Functions & Lambda in Python
- Comprehension in Python
- Modules
- Data Mangling

MCP 1

PYTHON

- Exception Handling
- Multithreading

## PYTHON FRAMEWORKS

- Django Project Structure and Configuration
- URL Routing and Views
- Models and Databases
- Django Admin Interface
- Building Dynamic Web Forms
- Django Templates
- Django Authentication and Authorization

MCP 1 MCP 2

MANUAL TESTING

## INTRODUCTION TO SOFTWARE TESTING

- Software Testing Overview
- Roles and Responsibilities of a Testing Engineer
- Testing Methodologies
- Testing Levels
- Types of Testing

## MANUAL TESTING

- Test Case Design Techniques
- Test Planning and Execution
- Defect Tracking and Management
- Test documentation
- Quality Assurance and Quality Control
- Risk-Based Testing and Test Prioritization
- JIRA and its Applications

## AUTOMATION TESTING

- Benefits and Drawbacks of Automation Testing
- Test automation process
- Test automation tools
- Automation Testing Frameworks
- Page Object Model (POM)
- Continuous Integration and Continuous Testing
- Applications of Stacks

## SELENIUM WEBDRIVER

- Selenium WebDriver architecture
- Introduction to selenium
- Setup and Installation
- Launching browser
- Handling web elements

- Locators in Selenium
- Controlling keyboard activities
- Controlling mouse activities
- Action
- Synchronization in Selenium
- Frames and Alerts
- Types of Wait

## API TESTING

- API Testing Concepts
- API Testing Tools
- Test Case Design for API Testing
- Automation of API Testing

**ARRAY DATA STRUCTURE**

- Introduction to Arrays
- Operations on Arrays
- Multidimensional Arrays

**STACK DATA STRUCTURE**

- Introduction to Stacks
- Stack Operations
- Applications of Stacks

**QUEUE DATA STRUCTURE**

- Introduction to Queues
- Queue Operations
- Types of Queues
- Applications of Queues

**CIRCULAR QUEUE DATA STRUCTURE**

- Introduction to Circular Queues
- Circular Queue Operations

**SINGLY LINKED LIST DATA STRUCTURE**

- Introduction to Singly Linked Lists
- Operations on Singly Linked Lists

**DOUBLY LINKED LIST DATA STRUCTURE**

- Introduction to Doubly Linked Lists
- Operations on Doubly Linked Lists

**TREE LINKED LIST DATA STRUCTURE**

- Introduction to Trees
- Types of Trees
- Tree Traversal
- Applications of Trees

**SEARCHING AND SORTING ALGORITHMS**

- Binary Search
- Quick Sort
- Merge Sort
- Insertion Sort
- Selection Sort
- Bubble Sort
- Radix Sort
- Heap Sort

**GENERAL ALGORITHMS**

- Dynamic Programming
- Greedy Algorithms
- Backtracking Algorithms
- Divide and Conquer Algorithms

**NUMBER SYSTEM**

- Number System Basics
- Divisibility Rules
- Remainder Concept
- L.C.M. and H.C.F
- Unit digit

**RATIO AND PERCENTAGE**

- Ratio
- Partnership
- Problems on Ages
- Percentage
- Profit and Loss
- Discount
- Simple Interest
- Compound Interest
- Average Mixture Alligation

**WORK, TIME AND DISTANCE**

- Time and Work
- Time and Distance
- Area Mensuration

**COUNTING**

- Permutations and Combinations
- Probability

**LETTER AND NUMBER BASED REASONING**

- Find the wrong number
- Coding Decoding
- Number series
- Odd man out
- Missing Number

**CALCULATING REASONING**

- Clocks

- Calendars
- Ranking

**NON-VERBAL REASONING**

- Missing Letter
- Mirror Images
- Figure Based Problems

**VERBAL REASONING**

- Blood Relations
- Direction Sense
- Venn Diagrams
- Syllogism
- Seating Arrangements
- Truth and Lie based problems

**DATA**

- Data Interpretation
- Data Sufficiency

**CORPORATE SKILLS**

- **Introduction To Corporate Skills**
- **Resume Customization**
- **Corporate Etiquettes**
- **Networking Activity**
- **Reading & Analysing**
- **Building Conversations**
- **GD / JAM**
- **HR / Managerial Round**
- **Presentation & LinkedIn**
- **Verbal**

# Projects

- **JAVA Projects**
- **Testing Projects**
- **SQL Project**
- **Front-End Technologies Projects**
- **Python Projects**



# Java Projects

## 1. BankSecure Pro

**Description:** Build expertise in creating banking platforms with BankSecure Pro, a Java-based solution offering comprehensive tools for bank operation management, including transactions and customer interaction

## 2. EduManager 360

**Description:** Learn to streamline educational management with EduManager 360, integrating student, financial, and administrative functionalities into one efficient platform

## 3. SalesSavvy

**Description:** Learn to enhance sales performance with SalesSavvy, integrating lead tracking, customer engagement, and performance analytics into one powerful platform.

# Testing Projects

## 4. ShopSecure

**Description:** Engage in ShopSecure, a project focused on rigorous testing of e-commerce web applications. Ensure top-tier functionality, usability, security, and performance for online stores.

## 2. BugBuster

**Description:** Discover BugBuster, a project that automates application testing. Enhance efficiency and accuracy in bug detection and ensure high software quality with automated scripts and testing frameworks.

# SQL Projects

## 6. CampusSQL

**Description:** Learn to build CampusSQL, an SQL-driven system designed to streamline educational administration. Efficiently manage student data, faculty engagement, and course management through a user-friendly database platform.

# Front-End Technologies **Projects**

## 7. Workfolio

**Description:** Create a sleek, static website with Workfolio using HTML and CSS. Perfect for showcasing your work, achievements, and personal brand in a compelling format

## 8. TaskBuddy

**Description:** Develop an interactive to-do list app with TaskBuddy using HTML, CSS, and JavaScript and React. Manage daily tasks with features like prioritisation, custom categories, and progress tracking

## 9. KodChat

**Description:** Build KodChat, an AI-powered chatbot application. Design an intuitive chat UI and implement advanced features to deliver intelligent and responsive conversations

# Python Projects

## 10. GameMaster

**Description:** Create GameMaster Classic, a desktop application reviving classic arcade games using Python. This multi-game platform blends nostalgic gameplay with contemporary programming techniques

## 11. MealMate

**Description:** Develop mealMate, a comprehensive full-stack web application that links diners with local eateries through an efficient online ordering system, built with Python, Django, and modern web technologies

# Unlock Your Potential with KodNest



# Unlock Your Potential with KodNest Full-Stack Development



**Duration:** Embark on a transformative journey of **90 working days** with our all-encompassing Full-Stack Development Program. This tailored duration ensures you acquire proficiency in all necessary skills, apply them pragmatically, all while harmonizing your learning with your daily responsibilities.



**Eligibility:** Beginners, intermediates, professionals - all are welcome here! All you need to join this tech revolution is a **Bachelor's Degree** with a minimum of 50% or equivalent passing marks. We'll help you navigate the rest.



**Program Fees:** Boost your career trajectory with our cost-effective program fees. For the digital natives preferring online mode, it's just **INR 26,999/-**, and for the traditional learners choosing offline mode, it's **INR 31,999/-**. These inclusive fees cover everything you need to fuel your coding ambitions!

## WHERE OUR ALUMNI WORKS

				<b>AND MANY MORE...</b>		



## Student Success Stories



**Shashti DB**  
Karnataka

**34.4 LPA**  
Paypal

*I'm Shshti. Though I initially planned to pursue medicine, circumstances led me to engineering. Kodnest's interactive online training offered extensive guidance, hands-on practice, and regular grooming sessions. Despite facing several rejections, I remained focused on improvement and ultimately secured a high-paying position beyond my expectations*



**Divya Likhita**  
Andhra Pradesh

**34.4 LPA**  
PayPal

*I'm Divya. My journey from the Kodnest to a high-paying role at PayPal was both challenging and rewarding. The best training, unwavering support, quick help—even with urgent certificate issues—and a steady flow of top-tier opportunities kept me motivated. I'm truly grateful for their guidance.*



**Moka Durga Rao**  
Tripura

**12 LPA**  
Infinity Learn

*I'm Durga Rao. As an electrical engineering graduate, I faced numerous rejections because many companies preferred CSE students. However, the Dream Factory program's practical training and strong support helped me overcome these challenges. I'm thrilled to share I've now secured a software developer role, validating all my hard work.*



**Prabhath Kumar**  
Madhya Pradesh Daimler Truck

**10 LPA**

*I'm Shshti. Though I initially planned to pursue medicine, circumstances led me to engineering. Kodnest's interactive online training offered extensive guidance, hands-on practice, and regular grooming sessions. Despite facing several rejections, I remained focused on improvement and ultimately secured a high-paying position beyond my expectations*



**Chaganti Divyasri**  
Andhra Pradesh

**9.5 LPA**  
Infosys

*I am Divyasri. Earning my dream job was incredibly emotional, fulfilling my father's cherished wish. The training offered dedicated mentors, hands-on lessons, and immediate support whenever needed, fueling my confidence. I'm truly thankful for their unwavering commitment to my success.*



**Haveesh V**  
Karnataka

**9 LPA**  
Radware

*I'm Haveesh. I worried my automobile background might hold me back, but the training proved otherwise. The instructors were supportive, and the practical approach boosted my confidence. Their guidance and encouragement helped me land a high-paying job in my first technical interview.*

# Let's **Connect** Through



Scan for more details

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