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<https://codersready.com>



## JOB ORIENTED COURSES

with Globally Accepted Certificate

[www.codersready.com](http://www.codersready.com)



## Our International Quality Education Certifications



Coders Ready is globally recognized as a top –tier education Provider for industry based technologies.

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## About Coders Ready

*Coders Ready is a global leader delivering a wide Job oriented Courses of Artificial Intelligence , Data Science and Emerging Technology . We are a trusted training delivery partner of 72+ corporate clients and universities across the India with 1400+ professionals trained across various Courses. Our high quality training programs designed and delivered by industry experts themselves.*

*Coders Ready has helped institutions and industries in continuing with their knowledge delivery with a mix of technical knowledge and practical implementation.*



## Message to Future Codecrats

*If you are here, that means you have taken the right step to learn and empower yourself with an indispensable skill of this century i.e. "CODING". I would like to welcome you to our community of learners.*

*Coders Ready was started with the sole vision of shaping college students for the industry as it is well observed that students of science, engineering, commerce and management or of any discipline experience a huge gap in college curriculum and industry need, and to bridge that gap, Coders Ready is wholeheartedly committed.*

*According to Analytics Insights, India will capture 32% of the big data market worldwide and generate USD 20 billion by 2026. Another report by AIM Research suggests that the Indian analytics industry is predicted to escalate to USD 98 billion in 2025 and nearly USD 119 billion in 2026. Currently, the demand for data scientists is at an all-time high in India. Analysts have predicted around 11 million job openings in data science by 2026 in India alone.*

*So, whether you are just starting out in your tech journey with data or are an experienced developer looking to expand your skills, we have a wide range of courses and resources available to help you achieve your goals. Our team of expert instructors is dedicated to providing high - quality, practical, and engaging learning experiences. We are excited to work with you and make you Industry ready with consequential skills. Thank you for choosing our institute, and we look forward to supporting you on your learning journey.*

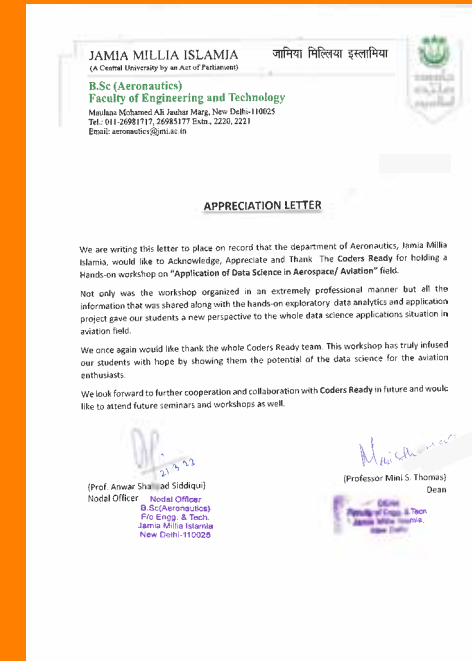




# Events, MoU & Apprenticeships

"Proud Official Sponsor of iRAD-2024, hosted by IIT Indore - Empowering Innovation, Transforming Futures."

"Proudly announcing MOU signings with 72+ colleges and universities for impactful skill development partnerships!"





## Our Industrial Experts



**Mann Singh**

IIT Indore , Ex-RI (NESAC(ISRO)), Ex-TE , ITR (DRDO)  
Active Researcher, Atmospheric & Space Science  
Engineering. AI & ML for Climate Informatics,  
Remote sensing , Radar Meteorology & Rain  
Micro Physics, Satellite Based Navigation &  
Drones Operations **7+ Years of Teaching Experience**



**Narendra Kumar**

IIT Kharagpur,  
ML Engineer in Exponentia  
I Machines software Pvt. Ltd.  
**6+ Year Exp.**



**Siva Kumar**

JDE Architect | AWS DevOps| Certified AWS Solution Architect  
| Terraform , Dockers , Kubernetes Expert| Prometheus and Grafana  
|GIT | GIT HUB| Jenkins | Ansible| AWS  
**14+ Year Exp. (Wipro, HCL)**



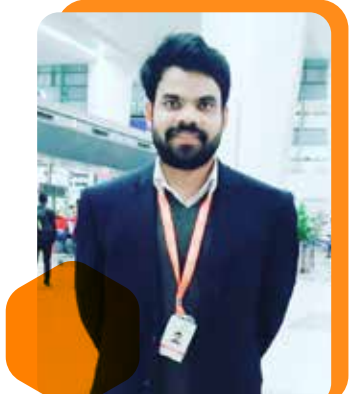
**L S Kiran CH**

Engineering Lead | Data Solution Architect  
| Big Data Engineer | Enterprise Data Integrations  
| DevOps-CI/CD  
**12+ Year Exp. (Tata Communication)**



**Sandeep Kumar Sharma**

IIT Kharagpur  
Lead Data Scientist at Tiger Analytics  
**7+ Year Exp.**



**Raghvendra Upadhayay**

Ex -Software Engineer DRDO  
|Full Stack Software Engineer  
| Creating Elegant Solutions for Complex Problems  
**6+ Year Exp.**



**Palagiri Hrushikesh**

Senior DevOps Engineer - Cloud Consultant  
**6+ Year Exp. (Wipro)**



**Satya Sasi Kanth Seethina**

Cloud and Devops Engineer at Deloitte  
| AWS & GCP Associate Certified - Associate  
| SRE  
**6+ Year Exp. (Deloitte)**



**Sita Rami Reddy Lankireddy**

Senior Data Scientist | Advanced NLP  
|computer Vision |MLOps  
|Build Retractable Decision Agents  
**5+ Year Exp.**

## 6- Month Courses

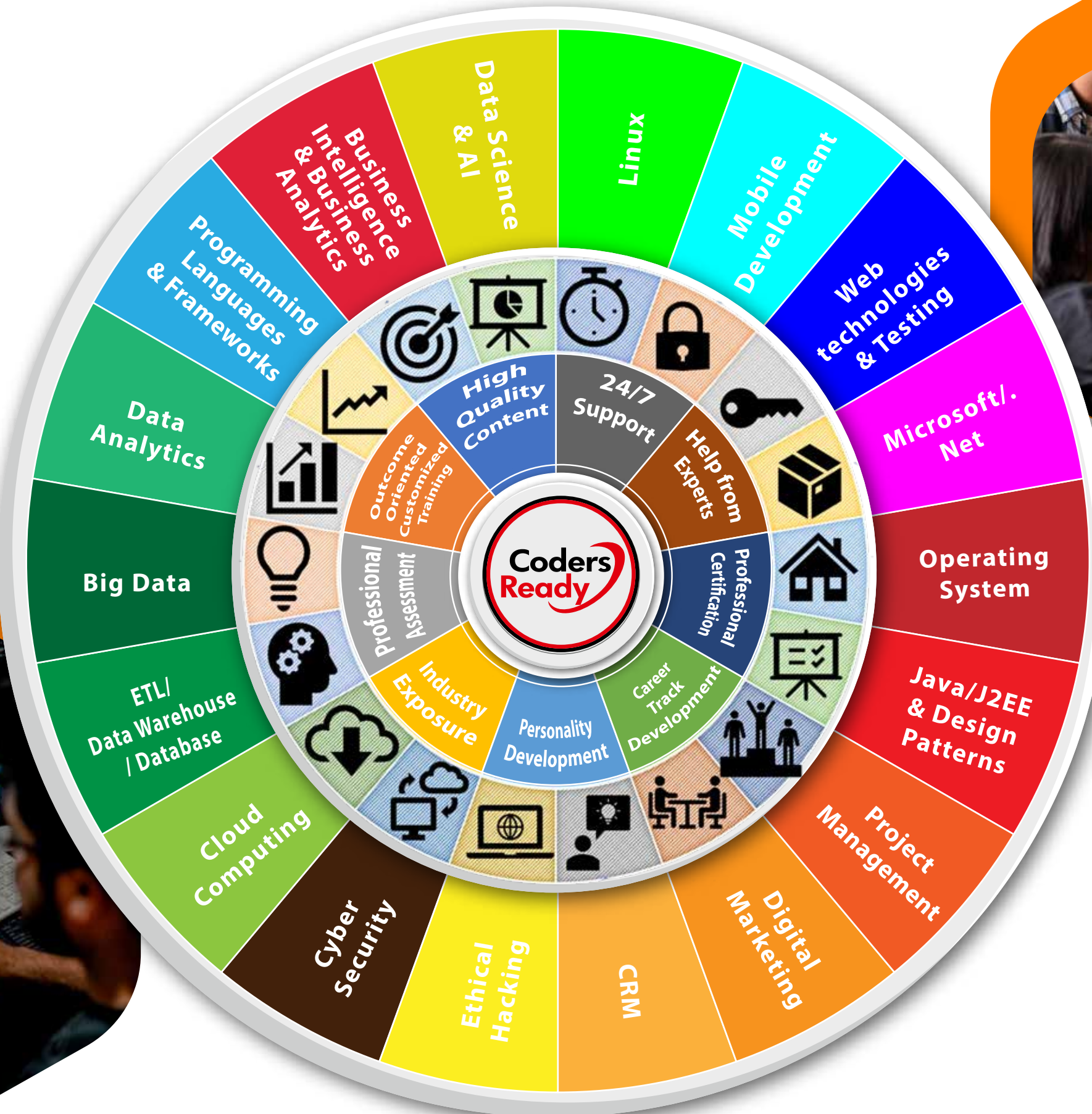
- 1 **Data Science with Python**  
For Certified Professional Data Scientist.
- 2 **Data/ Business Analytics**  
For Certified Professional Data / Business Analyst.
- 3 **Data Science & Cloud Computing**  
For Certified Professional Cloud & Data Engineer.
- 4 **Cloud Computing & DevOps**  
For Certified Professional Cloud & DevOps Engineer.
- 5 **Advance Python / Software Development & Engineering**  
For Certified Professional Python Developer.
- 6 **Full Stack Web Development & Software Engineering**  
For Certified Professional Software Development Engineer.

## Competitive Offering





# Our Catalog



# Program Highlight

01

## Data Science with Python

Duration	Modules	Course Add Ons
2 Months	Python	1-Workshop 2-Boot Camp 6-Industry Projects 1-Main Project
2 Months	Machine Learning	2-Workshop 1-Boot Camp 5-Industry Projects
2 Months	Deep Learning	2-Workshop 1-Boot Camp



02

## Data/ Business Analytics

Duration	Modules	Course Add Ons
15 Days	MS Excel	1-Workshop 2+ Industry Projects
15 Days	Google sheets	1-Workshop 2-Boot Camp 2+ Industry Projects
1 Months	SQL	1-Workshop 2+ Industry Projects
1 Months	Tableau	1-Workshop 2+ Industry Projects
1 Months	Power BI	1-Workshop 2+ Industry Projects
1 Months	Statistics	1-Workshop 2+ Industry Projects
1 Months	Python Data Analytics	1-Workshop 3-Industry Projects 1-Boot Camp 1 Main Project





03

## Data Science & Cloud Computing



*Duration*

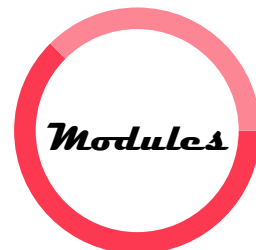
1  
Months

2  
Months

1  
Months

1  
Months

1  
Months



*Modules*

Cloud Computing  
with Amazon  
Web Services  
(AWS)

Microsoft Azure

Professional  
Data Science

Diving Deep  
into the Science  
of Machine  
Learning

Introduction  
to  
Deep Learning



*Course  
Add Ons*

2- Industry  
Projects

1- Workshop  
2- Industry  
Projects

1-Workshop  
2- Industry  
Projects  
1- Bootcamp

1-Workshop  
2- Industry  
Projects  
1- Bootcamp



04

## Cloud Computing & DevOps

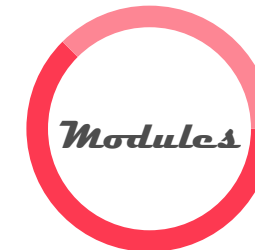


*Duration*

2  
Months

2  
Months

2  
Months



*Modules*

Cloud Computing  
with Amazon Web  
Services (AWS)

Microsoft Azure

DevOps

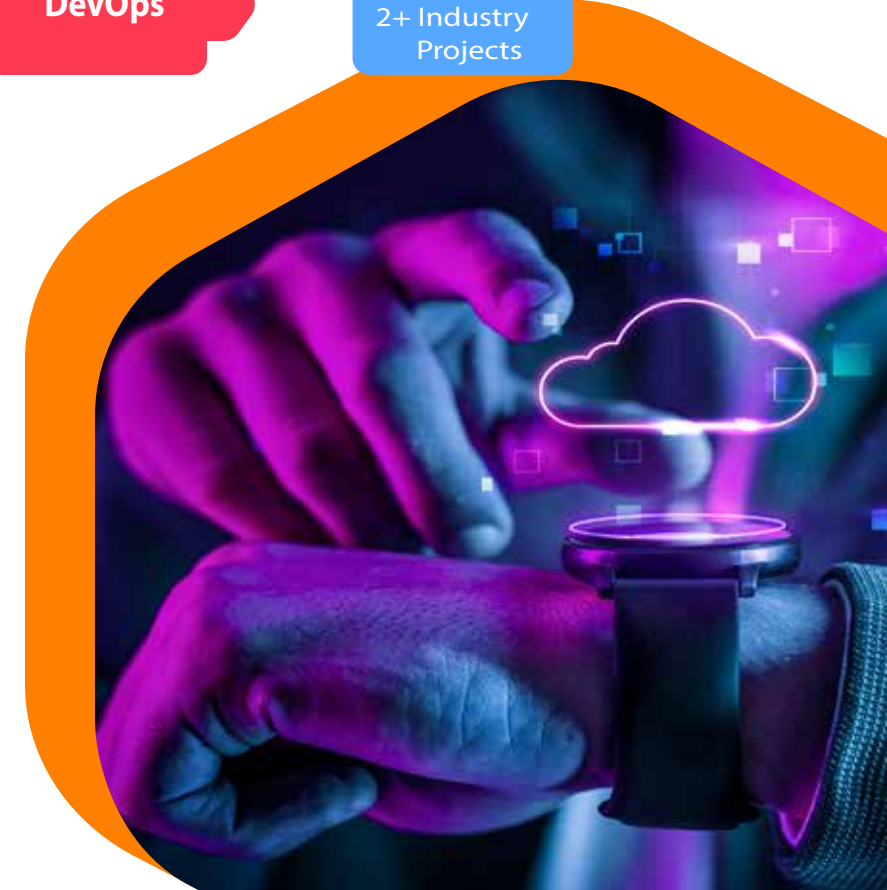


*Course  
Add Ons*

1-Workshop  
2+ Industry  
Projects

1-Workshop  
2+ Industry  
Projects

1-Workshop  
2-Boot Camp  
2+ Industry  
Projects





05

## Advance Python /Software Development & Engineering

Duration	Modules	Course AddOns
15 Days	Basic Python	1-Workshop
1 Months	Advance Python	1-Workshop 2+ Industry Projects
1 Months	Advance Tools for Python Development	1-Workshop 2+ Industry Projects
15 Months	Testing/ Scripting/ Scrapping in Python & Git + GitHub	1-Workshop 2+ Industry Projects
15 Months	Web Development with HTML	1-Workshop 2+ Industry Projects
1 Months	CSS & Javascript	1-Workshop 2+ Industry Projects
15 Days	Automation/ Testing with Selenium	2+ Industry Projects
1 Days	Professional Python for Data Science & Data Analytics Tools	1-Bootcamp 2+ Industry Projects 1- Main Project

06

## Full Stack Web Development & Software Engineering

Duration	Modules	Course AddOns
15 Days	Introduction to Web Development	2+ Industry Projects
1 Months	Front-End Development	1-Workshop 2+ Industry Projects
1 Months	Back-End Development	1-Workshop 2+ Industry Projects
15 Days	Full-Stack Development Tools and Workflow	1-Workshop 2+ Industry Projects
15 Days	Front-End Frameworks and Libraries	1-Workshop 2+ Industry Projects
15 Days	Back-End Frameworks and Libraries	1-Workshop 2+ Industry Projects
1 Months	Database Management and Integration	2+ Industry Projects
15 Days	Deployment and Hosting	1-Workshop
15 Days	Advanced Topics in Full-Stack Development	1-Bootcamp 2+ Industry Projects 1- Main Project





# Program Curriculum

01

## Data Science with Python

### MODULE 1: BASIC PYTHON (Kick-starting Python Programming)

#### CHAPTER 0: Kick-Starting Python

- 0.1 Introduction of Python Language.
- 0.2 Distribution of Python Software.

#### CHAPTER 1: Python in real-time industry

- 1.1 Taste of online IDEs

#### CHAPTER 2: Python Language Fundamentals

- 2.1 Tokens & Syntax.
- 2.2 Numbers & variables.
- 2.3 Simple Input and Output.
- 2.4 Barebones of the program

#### CHAPTER 3: Data Handling

- 3.1 Data types
- 3.2 Data Structures

#### CHAPTER 4: Control flow in Python coding

- 4.1 Conditional Decision making statements.
- 4.2 Looping Statements

#### CHAPTER 5: Working with Functions

- 5.1 Built-in/User-Defined Functions
- 5.2 Advanced / Special Function and other Miscellaneous remaining topics

#### CHAPTER 6: Competitive Coding

- 6.1 Integrating Basic Python concepts
- 6.2 Problem-Solving



### MODULE 2: ADVANCE PYTHON (Advance Python Concept)

#### CHAPTER 7: Python Collection, Sorting and Searching

- 7.1 Types of Collections.
- 7.2 Types of Sorting / Searching.

#### CHAPTER 8: OOPs for Python

- 8.1 Various Concepts of OOPs.
- 8.2 Implementation of OOPs.

#### CHAPTER 9: Errors and Exceptions

- 9.1 Types of Errors.
- 9.2 Exception & Termination.
- 9.3 Error Handling.

#### CHAPTER 10: Python GUIs Functional Programming

- 10.1 Working with Tkinter.
- 10.2 Introduction to Kivy and PyQt.
- 10.3 Development Basics and App Developments.

#### CHAPTER 11: Library & Python Modules

- 11.1 Inbuild modules in Python.
- 11.2 Various types of packages and modules.
- 11.3 Date Time module

#### CHAPTER 12: File Handling

- 12.1 Different types of file formats
- 12.2 File Handling using Python



## MODULE 3: PROFESSIONAL PYTHON (Professional Python for Data Engineers)

### CHAPTER 11: Introduction to Python Pro (TAMING THE DATA)

- 11.1 Understanding Data.
- 11.2 Playing with data.
- 11.3 Introduction to Python based ML/DL and Data analytics.

### CHAPTER 12: Role of Statistics in Data Science

- 12.1 Intro to statistics, Central tendency, standard deviation, variance
- 12.2 Inferential Statistics, Types of Probability Distribution

### CHAPTER 13: Data Science 101

- 13.1 House warming to Arrays.
- 13.2 Analysis and Manipulation of data.
- 13.3 Working with plots and charts
- 13.4 Hands on practice
- 13.5 Exploratory Data Analysis

## MODULE 4: MACHINE LEARNING (Advanced Coding for Machine Learning Professional)

### CHAPTER 14: Diving Deep into Science of ML

#### 14.0 Introduction to ML

- 1. Programming with Python
- 2. NumPy with Python
- 3. Learning Pandas for Data Analysis
- 4. Understanding of Matplotlib Programming Library -
- 5. Glance at seaborn for data visualizations

#### 14.1 Understanding Machine Learning with SciKit Learn

#### 14.2 Different types of ML:

- 1. Supervised Machine Learning
  - a) Classification
    - 1. Random Forest Algorithm
    - 2. Decision Tree Algorithm

- 3. Naive Bayes
- 4. Logistic Regression Algorithm
- 5. K-Nearest Neighbor
- 6. Natural Language Processing
- 7. Support Vector Machine Algorithm

#### b) Regression

- 1. Simple Linear Regression Algorithm
- 2. Lasso Regression
- 3. Ridge Regression
- 4. Multivariate Regression Algorithm
- 5. Decision Tree Algorithm
- 6. Lasso Regression

#### 2. Unsupervised Machine Learning

##### a) Clustering

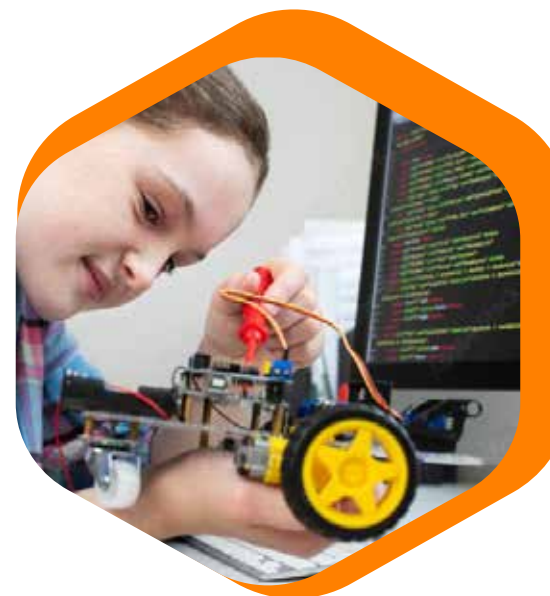
- 1. K-Means Clustering algorithm
- 2. Hierarchal clustering
- 3. Mean-shift algorithm
- 4. DBSCAN Algorithm
- 5. Principal Component Analysis
- 6. Independent Component Analysis

##### b) Association

- 1. Some popular algorithms of Association rule learning are Apriori Algorithm, Eclat, FP-growth algorithm
- 2. Semi-Supervised Machine Learning
- 3. Reinforcement Learning

#### 14.3 Model Deployment

#### 14.4 Live Industrial & Research Projects on various ML Algorithms



## MODULE 5: DEEP LEARNING (Advanced Coding 2.0 for Data Science Learning Professional)

### CHAPTER 15

#### 15.0 Introduction to DL

#### 15.1 Machine Learning and Neurons

1. Machine Learning
2. Neuro
3. Model Learning
4. Making Predictions
5. Saving and Loading Model
6. Introduction to keras

#### 15.2 Feedforward Artificial Neural Network

1. Artificial Neural Networks
2. Forward Propagation
3. Activation Function
4. Multiclass Classification
5. Working with images
6. NN for Classification
7. NN for regression

#### 15.3 Convolution Neural Networks

1. Convolution
2. CNN Introduction
3. Working with examples using CNN

#### 15.4 Recurrent Neural Networks

1. Sequence Data
2. Forecasting
3. Time Series Prediction
4. RNN introduction
5. RNN on Time Series
6. RNN for Image classification
7. Intro to LSTM

#### 15.5 Working on Recommender system

#### 15.6 Project - Transfer Learning

#### 15.7 Generative Adversial Networks

1. GAN introduction
2. Creating GAN

#### 15.8 Working with Tensorflow

#### 15.9 Loss Function in deeplearning

#### 15.10 Deployment

1. Create a model
2. Model Prediction function
3. Running with basic flask application

#### 15.11 Live Industrial & Research Projects on various DL Algorithms



## 02

## Data/ Business Analytics

### MODULE 1: MS EXCEL

- 1.1 Manage Workbook Options and Settings
- 1.2 Apply Custom Data Formats and Layouts
- 1.3 Create Tables
- 1.4 Perform Operations with Formulas and Functions
- 1.5 Create Charts and Objects
- 1.6 Manage Workbook Options and Settings
- 1.7 Apply Custom Data Formats and Layouts
- 1.8 Create Advanced Formulas
- 1.9 Create Advanced Charts and Tables

### MODULE 2: GOOGLE SHEETS

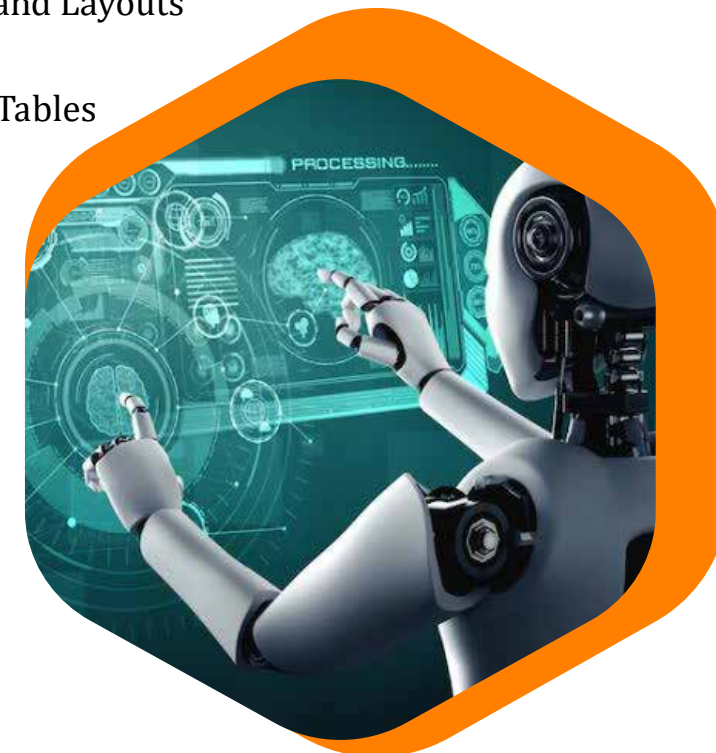
- 2.1 Basics
- 2.2 Functions
- 2.3 Pivot tables and dashboards

### MODULE 3: SQL

- 3.1 Operators and Queries
- 3.2 Advanced Queries
- 3.3 Advanced functions

### MODULE 4: STATISTICS

- 4.1 Intro to statistics, Central tendency, variance
- 4.2 Inferential Statistics, Types of Probability Distribution
- 4.3 Exploratory data analysis, Data Preprocessing
- 4.4 Hypothesis testing (parametric tests), Chi square test and 1 way ANOVA





## MODULE 5: TABLEAU

- 5.1. Introduction to Tableau
- 5.2 Basic Data Visualisation
- 5.3 Advance Data Visualisation
- 5.4 Building view Advance Map Option
- 5.5 Data Preparation
- 5.6 Advance Data Preparation
- 5.7 Data Visualisation Principles
- 5.8 Basic Filter/Managing your Data
- 5.9 Building Interactive Dashboard/Advanced Filtering and Action
- 5.10 Basic Calculation
- 5.11 Advance Calculation
- 5.12 Grouping Data/Dynamic Representation
- 5.13 Analytical Topic/Capability
- 5.14 Formatting
- 5.15 Dashboard Design
- 5.16 Sharing Your Dashboard

## MODULE 6:Power BI

- 6.1 Introduction To Power BI
- 6.2 Creating POWER BI Reports, Auto Filters
- 6.3 Creating POWER BI Reports, Auto Filters
- 6.4 Chart And Map Report Properties
- 6.5 Hierarchies And Drilldown Reports
- 6.6 Power Query & M Language
- 6.7 DAX EXPRESSIONS - level 1
- 6.8 DAX EXPRESSIONS - level 2
- 6.9 Power BI Deployment & Cloud
- 6.10 Power BI Cloud Operations

## MODULE 7: Python Data Analytics

- 7.1 Understanding Data
- 7.2 Playing with data
- 7.3 Introduction to Python based ML/DL and Data analytics.
- 7.4 Intro to statistics, Central tendency, standard deviation, variance
- 7.5 Inferential Statistics, Types of Probability Distribution
- 7.6 House warming to Arrays.
- 7.7 Analysis and Manipulation of data.
- 7.8 Working with plots and charts
- 7.9 Hands on practice
- 7.10 Understanding Data
- 7.11 Playing with data
- 7.12 Introduction to Python based ML/DL and Data analytics.
- 7.13 Intro to statistics, Central tendency, standard deviation, variance
- 7.14 Inferential Statistics, Types of Probability Distribution
- 7.15 House warming to Arrays.
- 7.16 Analysis and Manipulation of data.
- 7.17 Working with plots and charts
- 7.18 Hands on practice



# 03

## Data Science & Cloud Computing

### MODULE 1: Cloud Computing with Amazon Web Services (AWS)

- 1.1 Introduction To Linux
- 1.2 Introduction To Cloud Computing
- 1.3 Elastic Compute Cloud
- 1.4 Amazon Simple Storage Service(S3)
- 1.5 Virtual Private Cloud (VPC)
- 1.6 Load Balancer & Autoscaling
- 1.7 Cloudwatch
- 1.8 Cloud Trail
- 1.9 Relational Database (RDS)
- 1.10 Simple Notification Services (SNS)
- 1.11 Simple queue Service (SQS)
- 1.12 Identity & Access Management (IAM)
- 1.13 Dynamo DB
- 1.14 Intro to Git & Github



### MODULE 2: Microsoft Azure

- 2.1 Intro to Azure
- 2.2 Implementing & Managing Azure Network
- 2.3 Network Security Groups (NSG)
- 2.4 Azure Firewall
- 2.5 Implementing & Configuring Azure Virtual Machines
- 2.6 Designing & Implementing Azure Load Balancing
- 2.7 Azure DNS& Azure Standard Load Balancer
- 2.8 Configuring Azure Application Gateway
- 2.9 Configuring Auto Scaling with Virtual Machine Scale Sets(VMSS)
- 2.10 Planning and implementing Azure Storage
- 2.11 Azure SQL Database
- 2.12 Implementing Azure App Services
- 2.13 Implementing Azure Active Directory
- 2.14 Configure Diagnostics, Monitoring, and Analytics
- 2.15 Azure Migrate projects and customer billing optimization

- 2.16 Azure NAT Gateway
- 2.17 Introduction to Azure Resource Manager
- 2.18 Azure Function & Logic Apps
- 2.16 Azure NAT Gateway
- 2.17 Introduction to Azure Resource Manager
- 2.18 Azure Function & Logic Apps

### MODULE 3: Professional Data Science

- 3.1 Cloud & DataScience
- 3.2 History Of Data
- 3.3 Taming the Data Formats
- 3.4 Role of Statistics in Data Science
- 3.5 Use of Statistics and Probability in Data Science
- 3.6 Data Science 101
- 3.7 Most Essential Libraries & Packages for Data Science
- 3.8 Exploratory Data Analysis

### MODULE 4: Diving Deep into the Science of Machine Learning

- 4.1 Introduction to ML
- 4.2 Understanding ML with SciKit Learn
- 4.3 Different types of Algorithms
- 4.4 Model Deployment

### MODULE 5: Introduction to Deep Learning

- 5.1 Machine Learning & Neurons
- 5.2 Feedforward Artificial Neural Network
- 5.3 Convolution Neural Network
- 5.4 Recurrent Neural Network
- 5.5 GAN & Tensorflow
- 5.6 Model Deployment





# 04

## Cloud Computing & DevOps

### MODULE 1: Cloud Computing with Amazon Web Services (AWS)

- 1.1 Introduction To Linux
- 1.2 Introduction To Cloud Computing
- 1.3 Elastic Compute Cloud
- 1.4 Amazon Simple Storage Service(S3)
- 1.5 Virtual Private Cloud (VPC)
- 1.6 Load Balancer & Autoscaling
- 1.7 Cloudwatch
- 1.8 Cloud Trail
- 1.9 Relational Database (RDS)
- 1.10 Simple Notification Services (SNS)
- 1.11 Simple queue Service (SQS)
- 1.12 Identity & Access Management (IAM)
- 1.13 Dynamo DB
- 1.14 Intro to Git & Github



### MODULE 2: Microsoft Azure

- 2.1 Intro to Azure
- 2.2 Implementing & Managing Azure Network
- 2.3 Network Security Groups (NSG)
- 2.4 Azure Firewall
- 2.5 Implementing & Configuring Azure Virtual Machines
- 2.6 Designing & Implementing Azure Load Balancing
- 2.7 Azure DNS& Azure Standard Load Balancer
- 2.8 Configuring Azure Application Gateway
- 2.9 Configuring Auto Scaling with Virtual Machine Scale Sets(VMSS)
- 2.10 Planning and implementing Azure Storage
- 2.11 Azure SQL Database
- 2.12 Implementing Azure App Services
- 2.13 Implementing Azure Active Directory
- 2.14 Configure Diagnostics, Monitoring, and Analytics
- 2.15 Azure Migrate projects and customer billing optimization
- 2.16 Azure NAT Gateway

### 2.17 Introduction to Azure Resource Manager

### 2.18 Azure Function & Logic Apps

### MODULE 3: DevOps

- 3.1 Introduction to DevOps
- 3.2 Version Control Systems
- 3.3 Continuous Integration and Delivery (CI/CD)
- 3.4 Containerization with Docker
- 3.5 Infrastructure as a Code (IaaS) - Terraform
- 3.6 Container Orchestration (Kubernetes)
- 3.7 Configuration Management Tool (Ansible)
- 3.8 SDLC and Agile



# 05

## Advance Python /Software Development & Engineering

### MODULE 1: Basic Python

- 1.1 Kick-starting Python
- 1.2 Python in real-time industry
- 1.3 Python Language Fundamentals
- 1.4 Data Handling
- 1.5 Control flow in Python coding
- 1.6 Working with Functions

### MODULE 2: Advance Python

- 2.1 Python Collection, Sorting and Searching
- 2.2 OOPs for Python
- 2.3 Errors and Exceptions
- 2.4 Library & Python Modules
- 2.5 Python GUIsFuctional Programming
- 2.6 Core Python Development

### MODULE 3: Advance Tools for Python Development

- 3.1 SQL & Databases in Python
- 3.2 Python MongoDB
- 3.3 Django Frameworks
- 3.4 Introduction to Flask

### MODULE 4: Testing/ Scripting/ Scrapping in Python & Git + GitHub

- 4.1 Testing in Python
- 4.2 Scripting in Python
- 4.3 Scripting in Python
- 4.4 Image Processing
- 4.5 Scrapping data with Python
- 4.6 CWD: Git + Github Basic
- 4.7 GitHub Update: Master --> Main
- 4.8 Contributing To Open Source



### MODULE 5: Web Development with HTML

- 5.1 Introduction to HTML
- 5.2 HTML Fundamentals
- 5.3 Positioning
- 5.4 Advanced HTML
- 5.5 HTML tag reference XHTML

### MODULE 6: CSS & Javascript

- 6.1 Introduction & Basic Fundamentals of CSS
- 6.2 Bootstrap3
- 6.3 Advanced CSS & Bootstrap4
- 6.4 Migrating to Bootstrap5
- 6.5 Deployment of the website
- 6.6 Introduction to Javascript
- 6.7 Fundamentals
- 6.8 Advanced Function concepts
- 6.9 Advanced Object concepts
- 6.10 Addon Special Bonus concepts



### MODULE 7: Automation/ Testing with Selenium

- 7.1 1Automation/Testing with Selenium
- 7.2 Introduction to Selenium

### MODULE 8: Professional Python for Data Science & Data Analytics Tools

- 8.1 History Of Data
- 8.2 Taming the Data Formats
- 8.3 Role of Statistics in Data Science
- 8.4 Use of Statistics and Probability in Data Science
- 8.5 Data Science 101
- 8.6 Most Essential Libraries & Packages for Data Science
- 8.7 Exploratory Data Analysis
- 8.8 MS Excel and Google Sheets
- 8.9 Tableau for Visualization



# 06

## Full Stack Web Development & Software Engineering

### MODULE 1: Introduction to Web Development

- 1.1 Overview of web development
- 1.2 Client-side vs. server-side development
- 1.3 Introduction to front-end, back-end, and full-stack development
- 1.4 Essential tools and technologies for web development

### MODULE 2: Front-End Development

- 2.1 HTML5: Structure and semantics
- 2.2 CSS3: Styling and layout
- 2.3 Responsive web design using CSS frameworks (e.g., Bootstrap)
- 2.4 JavaScript fundamentals
- 2.5 DOM manipulation and event handling
- 2.6 Introduction to JavaScript frameworks (e.g., React, Angular, Vue)

### MODULE 3: Back-End Development

- 3.1 Introduction to server-side programming languages (e.g., JavaScript/Node.js, Python, Ruby, PHP)
- 3.2 Building RESTful APIs
- 3.4 Database fundamentals (SQL vs. NoSQL)
- 3.5 Introduction to databases (e.g., MySQL, MongoDB)
- 3.6 Authentication and authorization
- 3.7 Error handling and debugging

### MODULE 4: Full-Stack Development Tools and Workflow

- 4.1 Version control with Git and GitHub
- 4.2 Package management using npm (Node.js) or yarn
- 4.3 Task runners (e.g., Gulp, Grunt)
- 4.4 Webpack and module bundling
- 4.5 Continuous integration and deployment (CI/CD)

### MODULE 5: Front-End Frameworks and Libraries

- 5.1 Advanced JavaScript concepts (e.g., closures, promises, async/await)
- 5.2 Single-page application (SPA) development with React.js
- 5.3 State management with Redux or Context API

- 5.5 Routing with React Router
- 5.4 Building interactive UI components
- 5.5 Testing front-end applications

### MODULE 6: Back-End Frameworks and Libraries

- 6.1 Express.js: Building web servers and APIs with Node.js
- 6.2 MVC architecture
- 6.3 Authentication and authorization using Passport.js
- 6.4 Database interaction with Mongoose (MongoDB) or Sequelize (SQL)
- 6.5 REST API best practices and design patterns
- 6.6 Error handling and logging

### MODULE 7: Database Management and Integration

- 7.1 Relational database management systems (RDBMS)
- 7.2 Database design and normalization
- 7.3 CRUD operations (Create, Read, Update, Delete)
- 7.4 Data modeling and schema design
- 7.5 Working with NoSQL databases (e.g., MongoDB)
- 7.6 Using ORM/ODM libraries for database interaction

### MODULE 8: Deployment and Hosting

- 8.1 Setting up development and production environments
- 8.2 Containerization with Docker
- 8.3 Deploying applications to cloud platforms (e.g., Heroku, AWS, Azure)
- 8.4 Server management and scaling
- 8.5 Monitoring and logging
- 8.6 Security best practices for deployment

### MODULE 9: Advanced Topics in Full-Stack Development

- 9.1 Real-time communication with WebSockets
- 9.2 Microservices architecture
- 9.3 GraphQL for API development
- 9.4 Serverless computing
- 9.5 Performance optimization techniques
- 9.6 Web security and best practices



# Certification

## 1. Course Completion Certificate



## 2. Internship Completion Certificate



# Projects Domain

Our Instructors come up with the latest & new live projects with Unique Research/ Industry data. All the projects are curated according to the domain of the students. Major Applications of the project in varied domains include Analysis, Prediction and App/web app/Software Development. Here are some of the domains mentioned in which students are given hands-on over hundreds of projects.

## Project Domains

Banking Sector  
Retail / Service Sector  
E-Commerce  
Finance & Accounts  
Insurance  
Supply Chain  
Stocks & Share Market  
Product Quality Assurance  
Entrepreneurship / Startups  
Agriculture Sector  
Entertainment Sector  
Business Sector  
Sports Sector  
Education Sector  
Healthcare Sector  
Real Estate / Construction / Housing  
Web & Social Media  
Artificial Intelligence  
Data Engineering  
Sentiment / Emotion / Behavioural Analysis  
Image / Video / Signal Processing  
Public Sector  
Cyber Crime  
Fraud Detection & Security  
Digitalization  
Population/ Census prediction  
Engineering  
Earth & Space Science  
Aerospace / Automobile  
Physics & Geo-physics  
Remote Sensing  
Disaster Management

## Suitable Job Roles after the course

Data Analyst  
IT Professionals / Support  
System Analyst / Engineer  
Analytics Manager  
Business Analyst  
Financial Analyst  
Security Analyst  
Statistician  
Quantitative Analyst  
Quantitative trader  
AI / ML Practitioner / Engineer  
AI / ML Scientist  
Analytics Manager  
BI Specialist / Engineer  
Data Scientist  
Computer Vision Engineer  
Algorithm Engineer  
Research Engineer  
Big Data Engineer  
Data Quality Manager  
Web Developer  
UI / UX Designer  
Software Development Engineer  
Java / Full Stack Developer  
Database / Network Administrator  
Python Developer  
Cloud Engineer  
DevOps Engineer  
MLOps Engineer



# Hears from Our Learners



**Mr. Sujith Kumar**

Senior Machine Learning Engineer at Exponential AI  
Hyderabad, Telangana, India

Careers in Code has opened up possibilities for my future. It has given me a solid foundation of full-stack coding skills, as well as an introduction to people in the Syracuse tech community. I'm excited to continue growing those skills and connections to the community.



**Mr. Himanshu Vishwakarma**

Chatbot Developer  
Quess Corp Limited ,Delhi, India

Being a student in Coders Ready was beyond amazing, the staff and my fellow students were so supportive throughout the entire Course. Getting this opportunity showed me that it's never too late to learn a new skill and there are definitely people willing to support you the entire way.



**Mr. Siddharth Sharma**  
Senior Manager Analytics  
Mirum India

"Careers in Code has been a game changer for my career, and has opened up so many amazing opportunities. I feel prepared and ready to grow my presence and career in the tech community in Syracuse."



**Mr. Gaurav Kumar**  
IIT Roorkee

My teacher explains each concept clearly and also takes doubt sessions if I want to learn something again. Thank you Coders Ready for giving such an awesome platform to prepare for Coding Career.



**Mr. Santosh Kumar Mahto**

Software Engineer - Data Science at Exponential AI  
Hyderabad, Telangana, India

Before Coder Ready , I had a hard time grasping basic concepts in code and development. I was learning alone aimlessly, Coders Ready gave me structure and an amazing team of instructors and valuable resources. Not once was I left to learn alone, being assured that even after graduating I can still reach out is invaluable.



**Mr. Rohit Sharma**

Sr. Analyst at Ameriprises Financial  
Gurgaon, Haryana, India

Learned so much about coding and a lot about myself. I went from having zero experience in Coding to having so much knowledge about the field and the expectations required to thrive in the industry. I was so insecure going in the program, but over time I learned to take risks and allow myself to explore different areas and different ways of doing things.



**Mr. Rehan Raza**  
Python Developer  
DRDO

"I was given the opportunity to follow the class online and even though I knew things by learning on my own or working in the field prior to Careers in Code , I learned a lot from the instructors and from helping the students with their projects. It was an amazing experience that made me grow as a developer overall by helping others to go over the bumps I went on my own years ago.



**MD SAMEER KAMAL**  
Python Developer  
Stellantis

I can honestly say if it was not for this Coders Ready Course I would not have a job, and I would not be as advanced as I am. What we learned in Careers in Code directly applied to my day to day work. I learned so much about Machine Learning & Python.

## Leading organizations hire Coders Ready's students



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