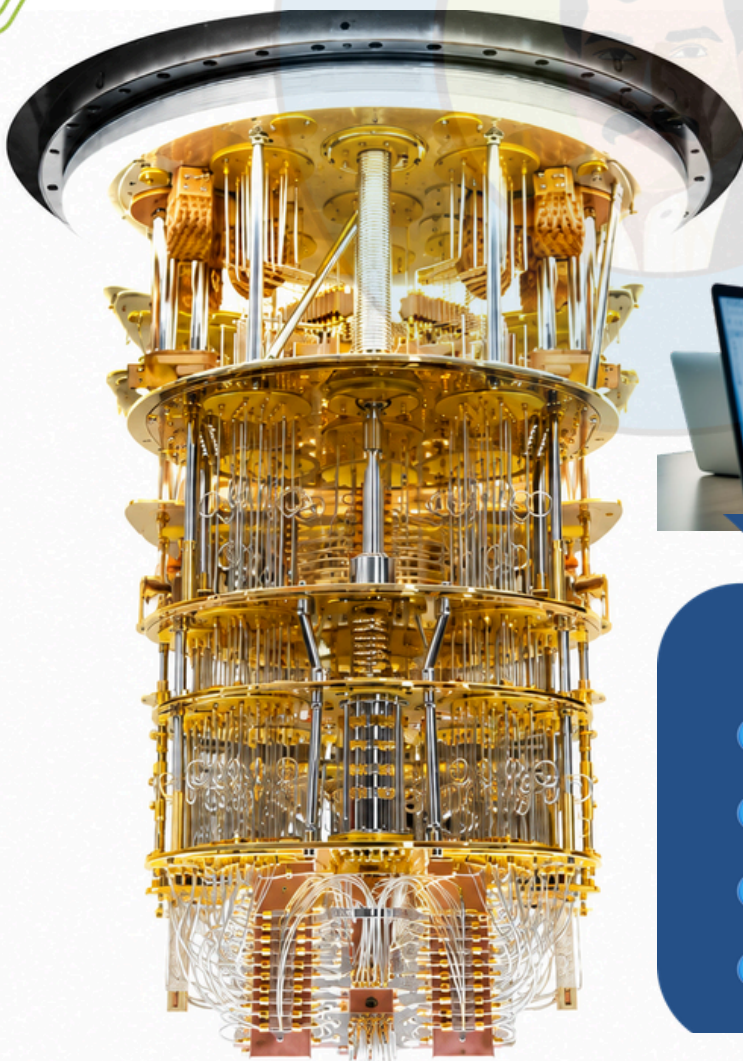


Real-Time QUANTUM COMPUTING

**Quantum Fundamentals, Qubits,
Quantum Circuits,
Quantum Algorithms, IBM Qiskit,
Quantum Machine Learning &
Applications**



Why Choose Us?

- ✓ Mock Interviews
- ✓ Resume Building
- ✓ 1:1 Career Mentorship
- ✓ Industry-Ready Curriculum

ABOUT TRAINER

Subba Raju Sir

TRANSFORMING PROFESSIONALS INTO AI INNOVATORS



SUBBA RAJU SIR

CERTIFICATIONS & CREDENTIALS

- Microsoft Certified Data Scientist & Co-pilot Engineer
- Google Certified Gen-AI Engineer
- Certified Pythonista Programmer
- Certified AI in Testing (ISTQB)
- Certified in GenAI & Agentic AI Engineering (Google, Microsoft, IITG)

With over 25+ years of IT experience and an M.Sc. in Computer Science from Manipal

University, Subba Raju Sir is a leading trainer in Data Science, Prompt Engineering, LLMs, Generative AI, Agentic AI, and Autonomous Testing (AI). He emphasizes hands-on, industry-oriented learning that bridges the gap between academic concepts and real-world applications.

SPECIALTIES & EXPERTISE:

- 👉 DATA SCIENCE, AI, AND GENERATIVE AI
- 👉 PROMPT ENGINEERING & AGENTIC AI SOLUTIONS
- 👉 PYTHON PROGRAMMING & AI TESTING
- 👉 CORPORATE & ACADEMIC TRAINING (250+ HOURS COURSES)
- 👉 MENTORING PROFESSIONALS FOR CAREER GROWTH IN AI



+91-96669 56556



info@codingmasters.in



codingmasters.in



Reviews

(Quantum Computing Program)



Janumpally Anilkumar



I am currently learning Quantum Computing, and it has been an exciting learning experience so far. Subba Raju sir explains even complex quantum concepts in a clear and easy-to-understand way. The hands-on practice with Qiskit and quantum circuits is helping me build confidence and practical skills.



Manoj Kumar



The Quantum Computing course is well-structured and practical, covering everything from quantum fundamentals to quantum circuits, algorithms, and Qiskit in a simple and understandable way. Subba Raju sir's teaching style is clear and engaging, making complex quantum concepts easier to learn. It's a great course for building practical skills in quantum computing and emerging technologies.



U. Lm Yadav



I joined the Quantum Computing course with no prior knowledge of quantum technologies, but now I can confidently understand qubits, quantum gates, circuits, and Qiskit programming. Subba Raju sir makes the entire learning journey simple, practical, and engaging with clear explanations and hands-on sessions.



Vamshi Vinnie



The best part of the Quantum Computing course is the hands-on practical exposure. We don't just learn quantum concepts—we work with quantum circuits, algorithms, Qiskit, and real-world applications that are highly relevant to emerging technologies. Subba Raju sir explains even complex quantum topics in a simple and easy-to-understand way.



+91-96669 56556



info@codingmasters.in



codingmasters.in

Quantum Computing Course Curriculum

Module 1: Quantum Computing Foundations

Evolution of Computing

Introduction to Quantum Computing

Why Quantum Computing?

Classical Computing vs Quantum Computing

Bits vs Qubits

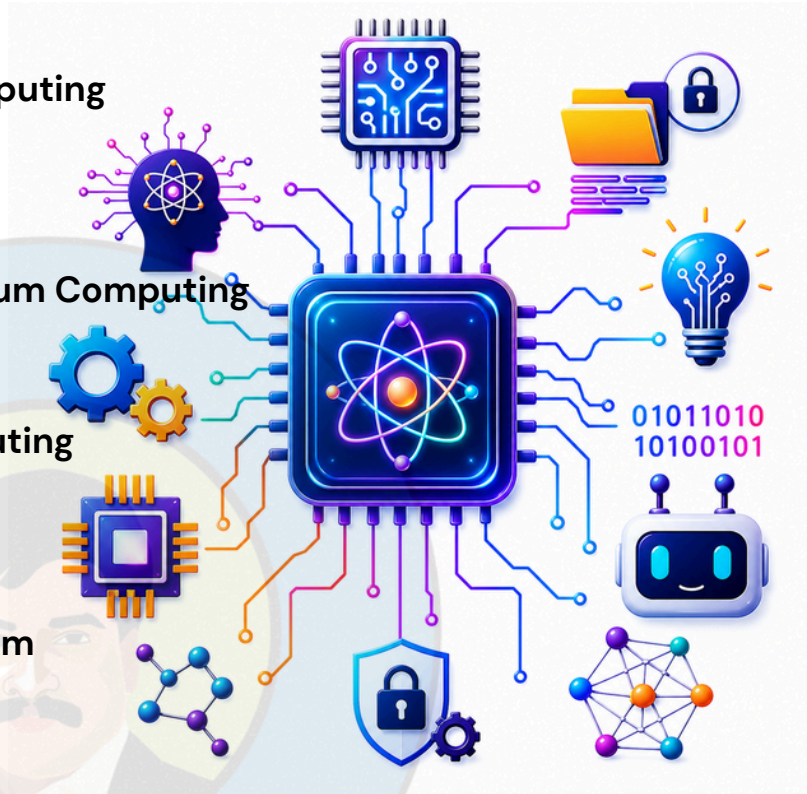
Limitations of Classical Computing

Quantum Advantage

Quantum Computing Ecosystem

Industry Applications

Career Opportunities



Module 2 : Python Programming for Quantum Computing

Introduction to Python

Variables & Data Types

Operators



Conditional Statements

Loops

Functions

Collections

List

Tuple

Dictionary

Set

Object-Oriented Programming (OOP)

Exception Handling

File Handling

NumPy Fundamentals

Python Practice Programs



Module 3 : Mathematics for Quantum Computing

Complex Numbers

Linear Algebra

Vectors

Matrices

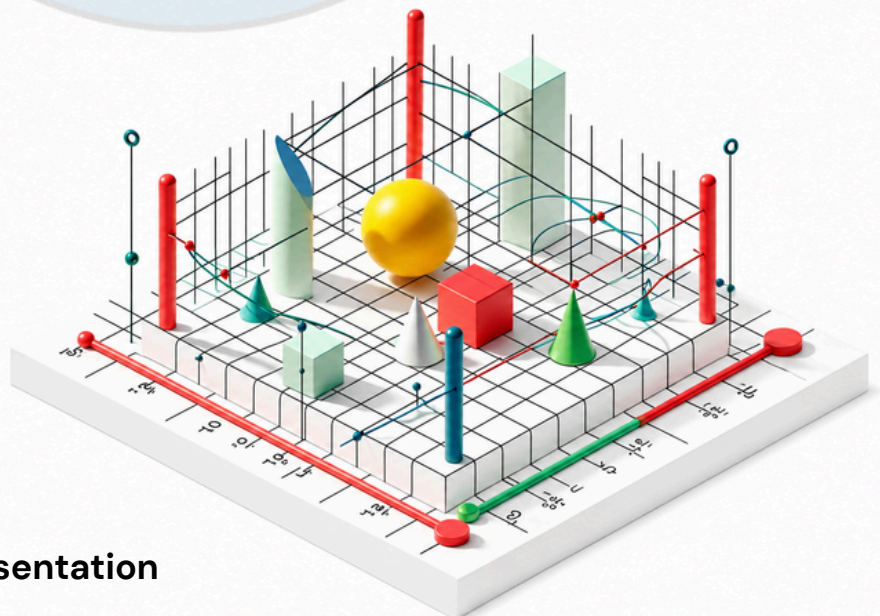
Matrix Operations

Eigenvalues

Eigenvectors

Probability

Quantum State Representation

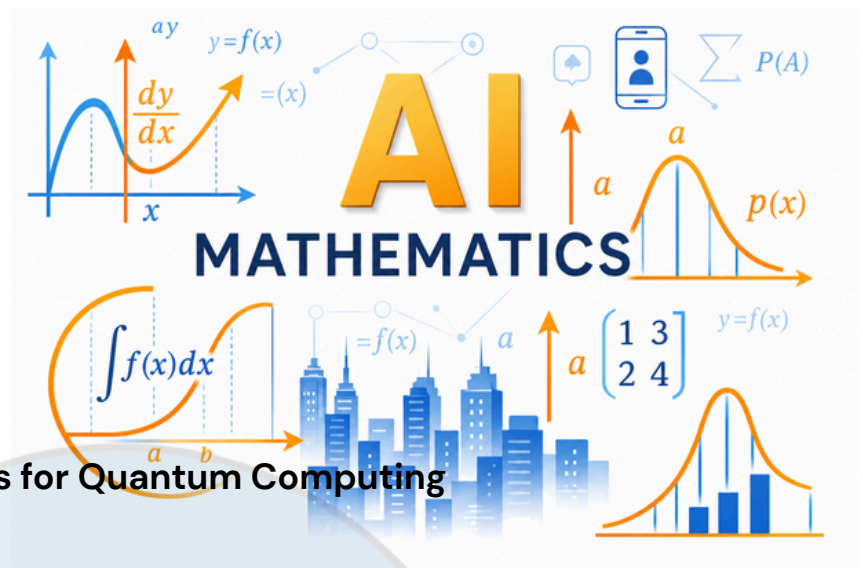


Dirac (Bra-Ket) Notation

Bloch Sphere

Tensor Product

Mathematical Foundations for Quantum Computing



Module 4 : Quantum Mechanics & Qubit Fundamentals

Fundamentals of Quantum Mechanics

Quantum States

Superposition

Quantum Entanglement

Quantum Measurement

Qubits

Single Qubit

Multi-Qubit Systems

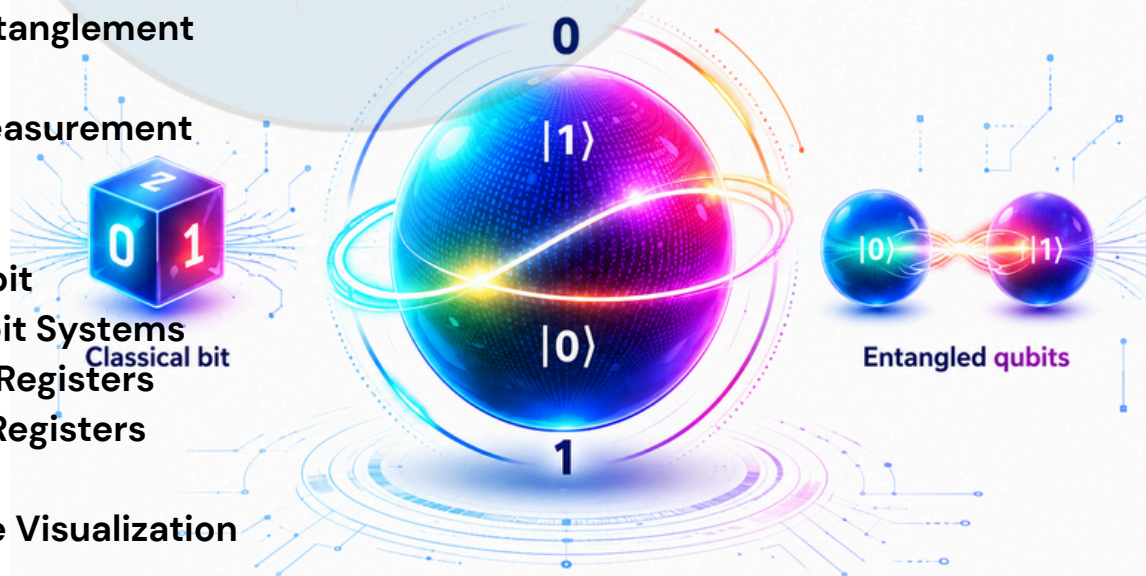
Quantum Registers

Classical Registers

Bloch Sphere Visualization

Real-World Qubit Technologies

Quantum Bits (Qubits)



Module 5 : Quantum Gates, Circuits & IBM Qiskit

Introduction to Quantum Gates

Single-Qubit Gates

Identity (I)

Pauli-X Gate

Pauli-Y Gate

Pauli-Z Gate

Hadamard (H) Gate

Phase (S) Gate

T Gate

Multi-Qubit Gates

CNOT Gate

Controlled-Z (CZ) Gate

SWAP Gate

Toffoli (CCX) Gate

Bell States

Quantum Circuit Design

Circuit Measurement & Visualization

Introduction to IBM Quantum Platform

IBM Quantum Composer

IBM Quantum Lab

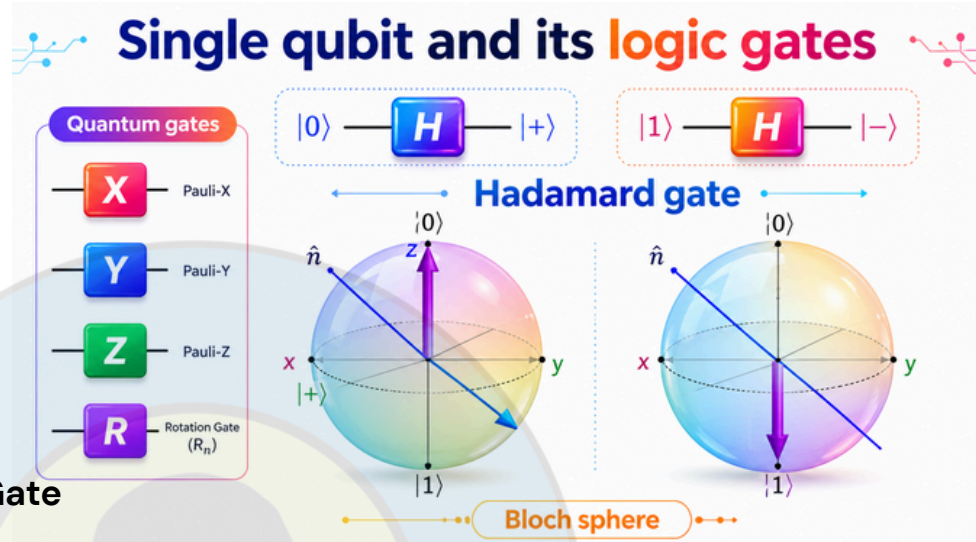
Qiskit Installation & Setup

Building Quantum Circuits using Qiskit

Executing Circuits on Simulator

Running on IBM Quantum Hardware

Hands-on Qiskit Practice



Module 6 : Quantum Algorithms

Introduction to Quantum Algorithms

Deutsch Algorithm

Deutsch–Jozsa Algorithm

Bernstein–Vazirani Algorithm

Simon's Algorithm

Grover's Search Algorithm

Quantum Fourier Transform (QFT)

Quantum Phase Estimation (QPE)

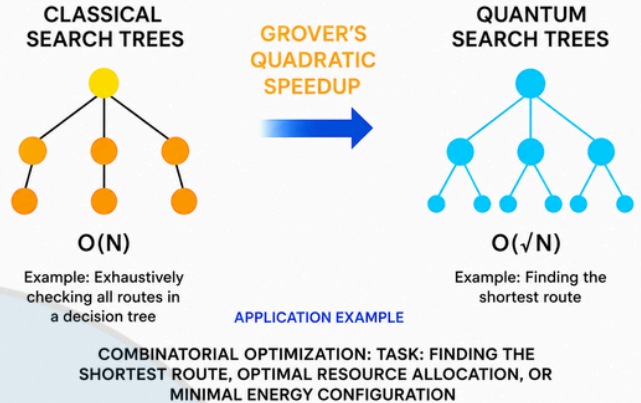
Shor's Algorithm

Algorithm Comparison

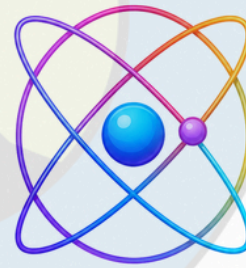
Qiskit Implementation

Hands-on Algorithm Demonstrations

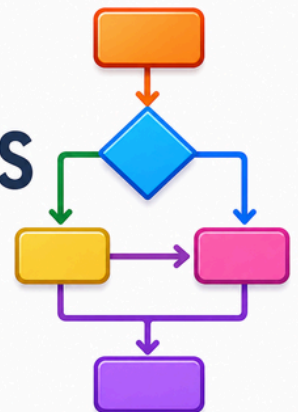
Quantum Search Trees in Grover's Algorithm



QUANTUM ALGORITHMS



CLASSICAL ALGORITHMS



VS

Module 7 : Quantum Machine Learning

Introduction to Machine Learning

Types of Machine Learning

Supervised Learning

Unsupervised Learning

Reinforcement Learning

Introduction to Quantum Machine Learning

Variational Quantum Circuits (VQC)



Quantum Neural Networks (QNN)

Quantum Kernel Methods

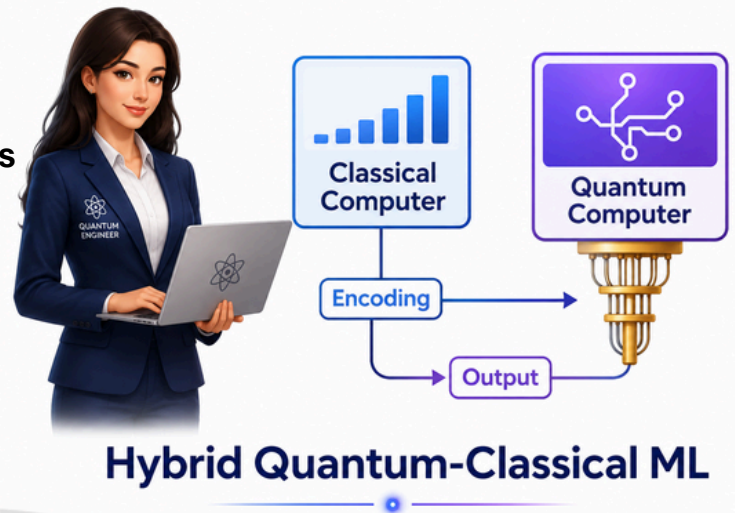
Hybrid Classical–Quantum Models

Qiskit Machine Learning

PennyLane Framework

Real-Time QML Applications

Hands-on Quantum ML Projects



Module 8 : Quantum Applications & Cloud Platforms

Quantum Cryptography

Quantum Key Distribution (QKD)

Healthcare & Drug Discovery

Finance & Risk Analysis

Cyber Security

Supply Chain Optimization

Scientific Research

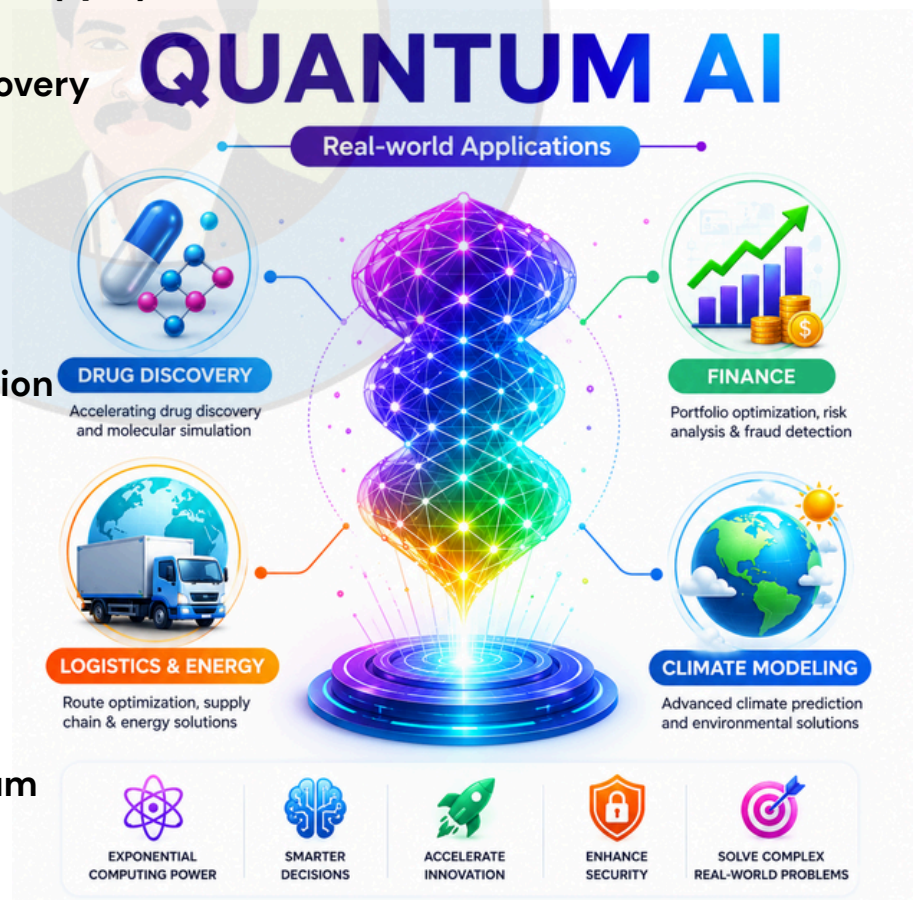
IBM Quantum Cloud

Amazon Braket

Microsoft Azure Quantum

Google Quantum AI

Real-World Quantum Computing Applications



Module 9 : Real-Time Projects, Career Preparation & Interview Readiness

Mini Quantum Computing Projects

Major Capstone Project

Git & GitHub Portfolio

Resume Building

LinkedIn Profile Optimization

IBM Quantum Certification Guidance

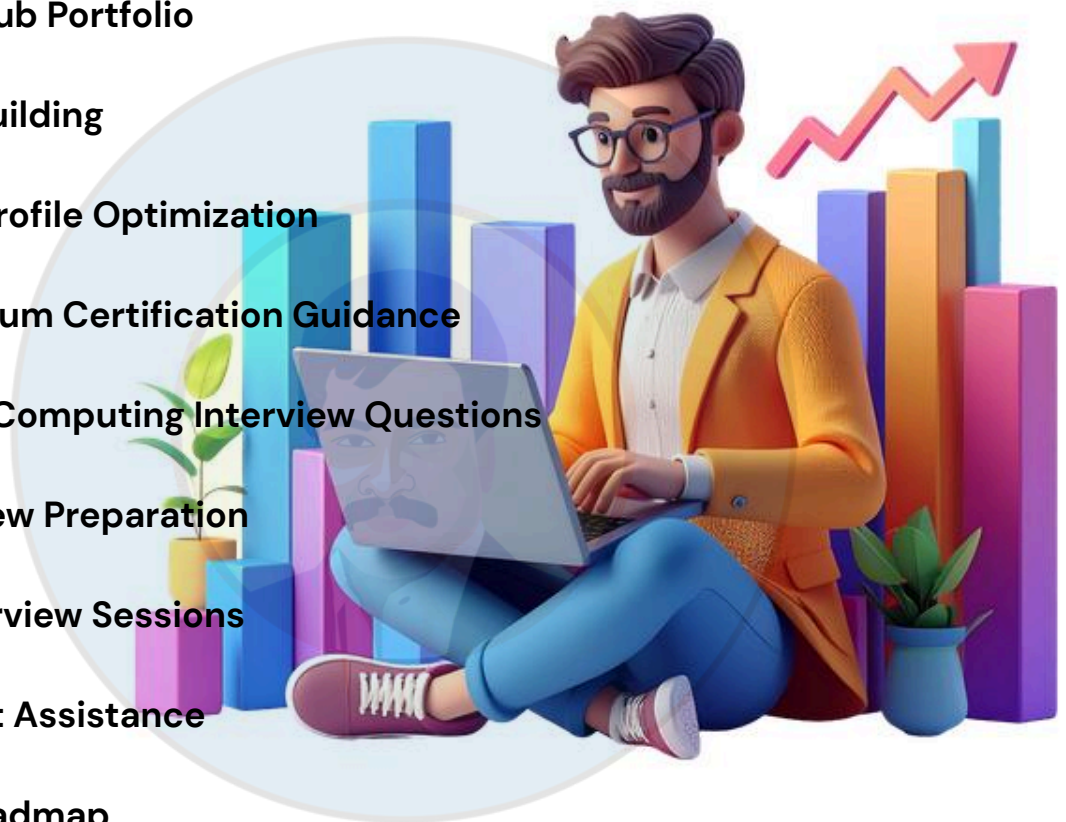
Quantum Computing Interview Questions

HR Interview Preparation

Mock Interview Sessions

Placement Assistance

Career Roadmap



MODULE :- 10

Ready for job

Build a strong resume, practice interviews, and get placement support to kickstart your career confidently.

 **LEARN THE SKILLS BUILD REAL PROJECTS. GET INTERVIEW READY**

- ☐ RESUME BUILDING
- ☐ MOCK INTERVIEWS
- ☐ Q&A SESSIONS
- ☐ HR INTERVIEW QUESTIONS
-  PLACEMENT ASSISTANCE

**Bhavya Krishna Residency,
Flat No: 404, OPP: Siddartha Degree
College, Ameerpet Rd, Nagarjuna
Nagar colony
Yella Reddy Guda,
HYDERABAD-500073**



Contact Us



Phone Number:

+91-96669 56556



Website:

codingmasters.in

Our Recent Placed Students



At **Coding Masters**, our faculty team comprises talented and experienced professionals with several decades of real-world industry experience. Our teaching style is tailored to meet **industry requirements**, ensuring no wasted effort or opportunity for learners. We are dedicated to empowering aspiring professionals with the skills they need to excel in the ever-evolving tech landscape. Known for offering the best **AI-Powered Data Analytics training in Hyderabad**, Coding Masters blends innovation, hands-on learning, and industry relevance.

Our mission is to bridge the gap between **academic knowledge** and **industry** expectations by providing high-quality training in **AI-Powered Data Analytics** and more. Guided by experts like **Subba Raju Sir**, every student receives personalized mentorship and a transformative learning experience.