



SOLUTION ARCHITECTURE MASTERY PROGRAM

COURSE SUMMARY

This course is designed to equip participants with the knowledge and skills needed to become effective solution architects. Solution architects play a crucial role in designing complex software systems and ensuring they meet the requirements of stakeholders. This course will cover a wide range of topics, including architecture principles, design patterns, cloud computing, and communication skills.

DURATION

6 to 8 Weeks

COURSE OUTLINE

Module 1: Introduction to Solution Architecture

- Discover the foundational concepts of solution architecture and gain insights into the critical role solution architects play in shaping successful IT projects.
- Explore real-world architecture challenges through engaging case studies.

Module 2: Architecture Styles

- Dive deep into architectural styles, patterns, and design principles.
- Learn how to make informed architectural decisions and strike a balance between competing requirements.

Module 3: Solution Design

- Explore the process of creating solution blueprints, designing data models, architecting application layers, and integrating systems using best practices and industry standards.

Module 4: Modern Technology Landscape and Its Impact

- Explore the ever-evolving technology landscape and its influence on solution architecture.
- Understand emerging trends, tools, and technologies that are shaping the IT industry.

Module 5: Cloud Computing and Infrastructure

- Delve into the world of cloud computing, covering key concepts, service models, and popular cloud providers.
- Learn to design for scalability and high availability in the cloud.

Module 6: Modern AI & GenAI Architecture

- Explore the architecture principles behind modern AI-driven systems and understand how generative AI is transforming solution design.
- Learn how large language models (LLMs) fit into enterprise architectures, including the different layers of AI systems.

Module 7: Security and Compliance

- Ensure the security and compliance of your solutions by adopting best practices, implementing identity and access management, and understanding encryption and compliance requirements.

Module 8: Performance Optimization

- Optimize system performance by monitoring key metrics, implementing load balancing and scaling strategies, leveraging caching, and delivering content efficiently.

Module 9: Communication and Negotiation

- Hone your communication skills to effectively convey architectural decisions and collaborate with development and operations teams.

PREREQUISITES

- Basic understanding of software development principles and programming.
 - Familiarity with at least one programming language.
 - Basic understanding of computer networks and operating systems.
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