Emerging Technologies

Certified DevOps Professional Program

Curriculum

Program Outline :

Module 1: Fundamentals of DevOps

1. **Introduction to DevOps**

   o Core principles, tools, and industry applications.

2. **Version Control with Git**

   o Managing code versions and collaboration.

3. **Continuous Integration**

   o Automating code integration and testing.

4. **Configuration Management**

   o Managing system configurations with tools like Ansible and Puppet.

Module 2: Advanced DevOps Techniques

5. **Continuous Deployment**

   o Automating application deployment.

6. **Infrastructure as Code (IaC)**

   o Managing infrastructure using tools like Terraform.

7. **Containerization with Docker**

   o Building and managing containers.

8. **Orchestration with Kubernetes**

o   Managing containerized applications at scale.

Module 3: Practical Applications

9. **Practical DevOps Projects**

    o   Developing and implementing DevOps projects.

10. **Monitoring and Logging**

    o   Tracking system performance and logs.

11. **Security in DevOps (DevSecOps)**

    o   Integrating security practices in DevOps.

12. **Business Intelligence Applications**

    o   Using data for DevOps decision making.

Module 4: Capstone Project

13. **Integration of Learned Skills**

    o   Apply tools and techniques to real-world DevOps problems.

14. **Advanced DevOps Systems**

    o   Developing complex DevOps systems.

15. **Cloud DevOps Management**

    o   Securing and managing DevOps in cloud environments.

16. **AI for DevOps**

    o   Implementing AI solutions in DevOps.

Elective Modules

17. **Data Ethics and Privacy**

    o   Ethical considerations, privacy laws, compliance strategies.

18. **Predictive Analytics with DevOps Management**

    o   Building and validating predictive models.

19. **AI for DevOps Management**

    o   Implementing AI solutions in DevOps.

20. **Advanced Data Warehousing Techniques**

o   Optimizing data warehousing solutions.

21. **Data-Driven DevOps Decision Making**

o   Using data to inform and drive DevOps strategies.

22. **Cloud DevOps Solutions**

o   Deploying DevOps management systems on cloud platforms.

23. **DevOps Project Management**

o   Leading DevOps projects, ensuring successful delivery.

24. **Big Data Security**

o   Securing data in big data environments.

25. **IoT DevOps**

o   Securing and managing DevOps for IoT devices and networks.

Websites:

- https://chools.in/
- https://ramaqchools.com/
- https://www.choolsgroup.com/