Emerging Technologies

Software Test Automation Engineer

Curriculum

Program Outline :

Module 1:Fundamentals of Software Testing

1. **Introduction to Software Testing**

   o Core principles, concepts, and methodologies.

2. **Manual Testing Techniques**

   o Basics of manual testing processes and techniques.

Module 2: Test Automation Tools and Techniques

3. **Selenium Framework**

   o Designing, implementing, and executing automated tests.

4. **Appium for Mobile Testing**

   o Automating tests for mobile applications.

5. TestNG Framework

   o Advanced testing techniques and test management.

6. **Cucumber for Behavior-Driven Development (BDD)**

   o Writing and executing BDD test scenarios.

Module 3: Practical Applications

7. **Functional Testing**

   o Ensuring software features work as intended.

8. **Performance Testing**

   o Evaluating software performance under various conditions.

9. **Security Testing**

   o Identifying and addressing security vulnerabilities.

10. **Usability Testing**

   o Assessing the user experience of software applications.

Module 4: Capstone Project

11. **Integration of Learned Skills**

   o Apply tools and techniques to real-world test automation projects.

12. **Advanced Test Automation Techniques**

   o Deepening knowledge and exploring advanced testing capabilities.

Elective Modules

13. **Data Ethics and Privacy**

   o Ethical considerations, privacy laws, compliance strategies.

14. **Predictive Analytics in Testing**

   o Leveraging predictive analytics for test automation.

15. **AI for Test Automation**

   o Implementing AI solutions in testing processes.

16. **Cloud Testing Solutions**

   o Deploying test automation solutions on cloud platforms.

17. **Test Automation Project Management**

   o Leading test automation projects, ensuring successful delivery.

18. **Big Data Testing**

   o Testing big data applications and ensuring data integrity.

Websites:

- https://chools.in/

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