

# **Emerging Technologies**

## **Full Stack Coding Program**

# Curriculum

### **Program Outline:**

#### **Module 1:Fundamentals of Web Development**

- 1. Introduction to Web Development
  - o Core principles, tools, and technologies.
- 2. HTML, CSS, JavaScript
  - o Creating the structure, style, and interactivity of web pages.

#### **Module 2: Front-End Development**

- 3. Front-End Frameworks
  - o Building dynamic and responsive user interfaces.
- 4. Advanced UI/UX Design
  - o Enhancing user experience through design.

#### **Module 3: Back-End Development**

- 5. Server-Side Programming
  - o Developing robust server-side applications.
- 6. Database Management
  - Storing and manipulating data in databases.
- 7. Web Services and APIs
  - o Creating and integrating web services.



#### **Module 4: Capstone Project**

#### 8. Integration of Learned Skills

o Apply tools and techniques to real-world web development projects.

#### 9. Advanced Data Analysis and Visualization

o Utilizing tools for data analysis and presentation.

#### 10. Testing and Debugging

o Ensuring code quality with testing frameworks.

#### **Elective Modules**

#### 11. Cloud Computing for Web Development

o Deploying applications on AWS, Azure, Google Cloud.

#### 12. DevOps for Full Stack Development

o CI/CD pipelines, containerization with Docker, Kubernetes.

### 13. Mobile App Development

o Creating cross-platform applications with Flutter, React Native.

#### 14. Cybersecurity for Web Development

o Best practices, threat modeling, security testing.

#### 15. AI for Web Development

o Integrating artificial intelligence in web applications.

#### Websites:

- <a href="https://chools.in/">https://chools.in/</a>
- https://ramaqchools.com/
- https://www.choolsgroup.com/