

# **Emerging Technologies**

## **Full Stack Web Development**

### **Curriculum**

#### **Program Outline :**

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

###### **1. Introduction to Web Development**

- Core principles, tools, and technologies.

###### **2. HTML, CSS, JavaScript**

- Creating the structure, style, and interactivity of web pages.

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

###### **3. React Framework**

- Building dynamic and responsive user interfaces.

###### **4. Django and Bootstrap**

- Creating user-friendly and scalable front-end applications.

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

###### **5. AWS, Heroku, Netlify**

- Deploying and hosting web applications.

###### **6. Database Management (MongoDB, PostgreSQL, MySQL)**

- Storing and manipulating data in databases.

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

###### **7. Integration of Learned Skills**

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

#### **8. Advanced Data Analysis and Visualization**

- Utilizing tools for data analysis and presentation.

#### **9. Testing and Debugging**

- Ensuring code quality with testing frameworks.

### **Elective Modules**

#### **10. Cloud Computing for Web Development**

- Deploying applications on AWS, Azure, Google Cloud.

#### **11. DevOps for Full Stack Development**

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

#### **12. Mobile App Development**

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

#### **13. Cybersecurity for Web Development**

- Best practices, threat modeling, security testing.

#### **14. AI for Web Development**

- Integrating artificial intelligence in web applications.

### **Websites:**

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