# ABCAT Web Development Preparation Checklist

**Preparation for ABCAT  
ABCAT requires a comprehensive understanding of web development concepts, frameworks, and tools. This preparation guide will help you review key areas and build practical skills essential for web development roles.**

## ABCAT Web Development Syllabus

The ABCAT Web Development test will include questions from the following topics:

• HTML & CSS Basics  
• JavaScript Programming  
• Frontend Frameworks  
• Backend Development  
• Database Essentials  
• Version Control (Git)

## Module 1: Introduction to Computer Programming

### - Introduction to JavaScript Programming

- JavaScript Operators

- Loop and Control Statements

- Arrays and Strings

- Objects and JSON

- OOP Concepts in JavaScript

- Functional Programming

- ES5 and ES6 Concepts

- Regular Expressions (RegEx)

## Module 2: Design & Analysis of Algorithms

### - Getting Started with DSA

- Pattern Matching

- Advanced Coding Analysis

### - Sorting Algorithms & Searching Techniques

- Sorting

- Searching

### Recursion & Backtracking

- Starting with Recursion

- Advanced Coding with Recursion

- Backtracking Basics and Analysis

## Module 3: Front-end Development

### - Foundations of Web Design

- HTML

- CSS

- Bootstrap

### - Dynamic Web Design

- DOM Manipulation

- jQuery & AJAX

- Asynchronous Coding in JavaScript

### - Tailwind CSS & Front-End Capstone Project

- Tailwind CSS

- Project Management & Deployment (GitHub)

### - ReactJS Foundations

- ReactJS & JSX

- State and Props

- Routing and Event Handling in React

- Lifecycle Methods & React Hooks

- Managing State with Redux

- Error Handling, Debugging, and Unit Testing

- Deployment (e.g., Netflix)