### 🔰 ****Phase 1: Foundation (Absolute Basics)****

**Topics to Cover:**

1. ✅ What is testing and why do we test?
2. ✅ Types of testing: Unit, Integration, E2E, etc.
3. ✅ Setting up React Testing Library and Jest
4. ✅ Your first test case: Testing a Button click
5. ✅ Understanding render(), screen, and fireEvent
6. ✅ Role of describe, test, it, expect

### ⚙️ ****Phase 2: Core Concepts (Practice & Patterns)****

**Topics:**

1. ✅ Testing input fields and form submission
2. ✅ Using beforeEach, afterEach
3. ✅ Mocking functions (jest.fn())
4. ✅ Querying elements with:
   * getByRole, getByText, getByPlaceholderText, etc.
   * queryBy, findBy, and how they differ
5. ✅ Assertions with expect()

### 🚦 ****Phase 3: Testing Logic & Props****

**Topics:**

1. ✅ Testing props and dynamic rendering
2. ✅ Conditional rendering (e.g., show/hide components)
3. ✅ Testing API calls (mocking fetch/axios)
4. ✅ Mocking child components
5. ✅ Snapshot testing (optional but good to know)

### ⚡ ****Phase 4: Advanced React Testing****

**Topics:**

1. ✅ Testing Context API
2. ✅ Testing Redux-connected components
3. ✅ Mocking custom hooks
4. ✅ Using MSW (Mock Service Worker) for API mocking
5. ✅ Accessibility testing with axe
6. ✅ Coverage reports (--coverage)
7. ✅ Working with async (e.g., loading states)

### 🧠 ****Phase 5: Real-World Testing Strategy****

**Topics:**

1. ✅ Organizing test files
2. ✅ Writing maintainable & readable tests
3. ✅ Testing folder structure
4. ✅ Test-Driven Development (TDD) intro
5. ✅ Common mistakes & best practices

Add more mock function mock data scenarios ….

**Usage of act**

**# >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>**