**Unit and Component Test Suites with Coverage Reports**

**Testing Frameworks:**

* **Backend:** pytest (Python), Jest (Node.js)
* **Frontend:** Jest + React Testing Library or Cypress

**Test Types:**

* **Unit Tests:** Individual functions and methods
* **Component Tests:** React components and Vue templates
* **Service Tests:** API endpoints and controller logic
* **Mocking:** DB calls, API clients, and auth tokens

**Coverage Goals:**

* 85–90% line and branch coverage
* Exclude migration scripts and config files

**Reports & Tools:**

* HTML reports generated using coverage.py or nyc
* Coverage badges on the project README
* Auto-upload to SonarQube or Codecov dashboards