

# Phase 10: Deployment & Maintenance

## 1. Deployment Strategy

- Sandbox Testing: All development was tested in Developer Sandbox.
- Change Sets: For smaller deployments, Outbound Change Sets were used.
- SFDX + GitHub: For structured development, VS Code with SFDX was connected to Salesforce.
  - - Source code tracked in GitHub.
  - - sfdx force:source:push used for sandbox deployments.
  - - sfdx force:source:deploy used for production.

## 2. Testing

- Unit Tests: Apex classes & triggers covered with  $\geq 75\%$  test coverage (e.g., Appointment validation tests).
- User Acceptance Testing (UAT): Doctors tested appointment booking and patient record creation. Reception staff tested flows for check-in and billing.
- System Testing: End-to-end hospital workflows (Doctor → Patient → Appointment → Billing) were tested. LWC components tested in Lightning App Builder.

## 3. Monitoring & Logs

- Debug Logs were enabled for doctors/admins during testing.
- Health Check was run to check org security compliance.
- System.debug() used in Apex for error tracking.

## 4. Maintenance & Enhancements

- Feedback Loop: Doctors requested auto-reminder SMS for appointments.
- Future Enhancements: Integration with external Lab Report APIs.
- Patient Portal planned using Experience Cloud.
- Mobile App support with Salesforce Mobile SDK.

## 5. Best Practices Applied

- Flows were used for simple automation, Apex for complex logic.
- LWC components implemented for modern UI.
- GitHub used for version control.
- Deployment checklist prepared for Production release.