# Testing Phase

|  |  |
| --- | --- |
| Date | 25 JUNE 2025 |
| Team ID | LTVIP2025TMID30609 |
| Project Name | workforce administration solution (dev) |
| Maximum Marks |  |

**Objective:** Ensure the functionality, security, and performance of the workforce administration solution during its development phase.

# Key Testing Areas

## 1. Functional Testing

○ Employee onboarding/offboarding workflows

○ Leave & attendance tracking

○ Payroll integration (if applicable)

**○** Role-based access control

## 2. UI/UX Testing

○ Navigation flows

○ Mobile/responsive design behavior

○ Accessibility compliance (WCAG standards)

## 3. Integration Testing

○ ERP/HRIS systems (SAP, Workday, etc.)

○ Third-party services (background checks, payroll, benefits)

## 4. Performance Testing

Load handling (concurrent logins, bulk updates)

System response times during peak hours

## 5. Security Testing

* User authentication & authorization

* Data encryption (at rest and in transit)

* GDPR/HIPAA compliance checks (if relevant)

## 6. Regression Testing

○ Ensure new features don't break existing ones

○ Automated test scripts for repeated runs

## 7.User Acceptance Testing (UAT)

○ Conducted by HR managers or stakeholders

○ Validate if business needs are being met

## Tools You Might Use

* **JIRA** – Test case management and bug tracking
* **Selenium/Cypress** – Automation testing
* **Postman** – API testing
* **JMeter/Locust** – Load and performance testing
* **OWASP ZAP/Burp Suite** – Security testing

## Example Testing Timeline

**Phase** **Duration** **Owner(s)**

|  |  |  |
| --- | --- | --- |
| Test Planning | 1 week | QA Lead, PM |
| Test Case  Development | 2 weeks | QA Engineers |
| Test Execution | 3 weeks | QA + Dev Team |
| Bug Fixes & Retesting | 2 weeks | Developers + QA |
| UAT & Sign-off | 1 week | Stakeholders/HR |

## Data Migration & Validation Testing

**Why It Matters:**

When moving from a legacy HR system or spreadsheet-based tracking to a new workforce solution, **data integrity** is critical.

**Key Focus Areas:**

* Validate import of employee records, payroll data, attendance history, etc.
* Check field mappings between old and new systems
* Test for data loss, duplicates, or formatting issues
* Reconcile totals (e.g., leave balances, salary figures)

**Tools:**

* SQL queries for validation
* ETL tools (if large-scale migration involved)
* Manual spot checks for sensitive data

## Analytics & Reporting Verification

**Why It Matters:**

Workforce administrators rely on reports for compliance, planning, and management decisions.

**Key Focus Areas:**

* Test built-in reports (e.g., headcount, attrition, attendance summaries)
* Verify custom reporting features
* Validate accuracy of dashboard visualizations and KPIs
* Check role-based access to sensitive reports (e.g., salary reports)

**Considerations:**

* Test export functionality (PDF, Excel, CSV)
* Confirm scheduled reports trigger correctly (e.g., monthly payroll reports)