**\*Test Plan for HR Management System: Shift Mapping, Weekly Off Mapping, and Time & Attendance Module.**

**Test Plan ID**: TP-HRMS-001

**Project Name**: HR Management System (HRMS)

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**1. Introduction**

HRMS: - Shift Mapping, Weekly Off Mapping, and Time & Attendance modules are designed to help HR personnel manage employee shifts, weekly offs, and attendance records. The test plan aims to verify that the functionalities of these modules are working as expected and meet business requirements.

This plan covers testing for:

i) Shift Mapping: Assigning employees to specific shifts (morning, evening, night).

ii) Weekly Off Mapping: Mapping weekly offs to employees, ensuring correct scheduling.

iii) Time & Attendance: Tracking employee attendance, overtime, and leaves.

**2. Test Objectives**

The objectives of this testing are:

- To validate the functionality and accuracy of the Shift Mapping feature.

- To ensure correct Weekly Off Mapping for each employee.

- To verify that the Time & Attendance module tracks employee hours, overtime, and leave accurately.

- To check integration between Shift Mapping and Time & Attendance for consistency in data handling.

- To confirm that the system handles different shift and attendance rules properly.

**3. Test Scope**

In-Scope:

i) Shift Mapping:

- Assigning shifts to employees.

- Shift changes and updates.

- Handling multiple shifts (morning, evening, night shifts).

ii) Weekly Off Mapping:

- Assigning weekly offs to employees.

- Ensuring no overlap between shift schedules and weekly offs.

iii)Time & Attendance:

- Tracking employee check-in and check-out times.

- Calculation of working hours, overtime, and absences.

- Managing attendance reports.

- Leave requests and approvals (if integrated with attendance).

Out-of-Scope:

- Non-HR-related modules (e.g., payroll or recruitment).

- System integration with external systems for leave policies.

- Performance testing for large datasets.

**4. Test Strategy**

The testing will include both Manual Testing approaches.

- Manual Testing:

i) Functional Testing: To verify all the functions of the Shift Mapping, Weekly Off Mapping, and Time & Attendance modules.

ii) Integration Testing: Ensuring the correct data flow between these modules and other HRMS features.

iii)Usability Testing: Ensuring ease of use and that the UI meets the HR team's requirements.

- Types of Testing:

- Functional Testing: To verify the core functionalities work correctly.

- Integration Testing: To ensure smooth interaction between Shift Mapping, Weekly Off Mapping, and Time & Attendance.

- User Acceptance Testing (UAT): To confirm the system meets business requirements and HR needs.

**5. Test Deliverables**

- Test Cases: Documented test cases covering all functionalities for Shift Mapping, Weekly Off Mapping, and Time & Attendance.

- Test Scripts: Automated test scripts for regression and API testing.

- Test Data: Sample employee data for testing purposes.

- Defect Reports: Reports of any defects discovered during testing.

- Test Summary Report: A final report summarizing testing efforts, results, and remaining issues.

**6. Test Environment**

-Hardware:

- Web Servers: Windows Server or Linux (depends on the deployment environment).

- Client Machines: Workstations with standard configurations (Windows 10, MacOS).

- Software:

- OS: Windows 10, MacOS (client-side).

- Browsers: Google Chrome, Mozilla Firefox, Safari (latest versions).

- Database: MySQL

- Tools:

- Excel: For Test Case

- Postman: For API testing

**7. Resource Planning**

- Testers:

- QA Engineer Oversees the testing process and reports to management.

- Tools:

- Excel & Bugasura for bug tracking and test management.

**8. Schedule and Timeline**

| **Activity** | **Duration** | **Responsible** |
| --- | --- | --- |
| Test Planning | 2 days | QA |
| Test Case Development | 3 days | QA |
| Test Data Preparation | 2 days | QA |
| Test Execution | 5 days | QA |
| Defect Logging | Ongoing | QA |
| Regression Testing | 2 days | QA |
| Test Reporting | 1 day | QA |

**9. Risk and Mitigation**

-Risk: Misalignment between shift schedules and weekly offs.

- Mitigation: Cross-check weekly off mapping with shift data to ensure no overlap.

- Risk: Inaccurate attendance records due to system errors or user mistakes.

- Mitigation: Perform thorough data validation checks during test execution, especially for overtime and absence tracking.

- Risk: Testing environment may not replicate the production environment exactly.

- Mitigation: Ensure the test environment is configured to match production closely or use real-time data (sanitized).

**10. Entry and Exit Criteria**

Entry Criteria:

- All code changes are committed, and the system is in a stable state.

- Test environment is set up, and test data is available.

- Test cases are designed and reviewed.

Exit Criteria:

- All planned test cases are executed and passed (or defects logged).

- No critical defects remain unresolved.

- Test summary report is delivered to stakeholders.

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**11. Test Case Design**

The test cases will cover the following functional areas:

- Shift Mapping Test Cases:

- TC-HRMS-01: Verify employees can be assigned to different shifts (morning, evening, night).

- TC-HRMS-02: Verify that shift changes are reflected correctly in the system.

- TC-HRMS-03: Ensure that an employee can have only one shift assigned at a time.

- Weekly Off Mapping Test Cases:

- TC-HRMS-04: Verify that employees are correctly assigned weekly offs.

- TC-HRMS-05: Check that no employee is scheduled to work on their weekly off day.

- TC-HRMS-06: Validate that employees with rotational shifts can have different weekly offs.

- Time & Attendance Test Cases:

- TC-HRMS-07: Verify that check-in and check-out times are recorded correctly.

- TC-HRMS-08: Ensure that overtime hours are calculated properly.

- TC-HRMS-09: Validate the system correctly tracks employee leave and absence.

**12. Defect Reporting and Tracking**

All defects will be logged and tracked using Bugasura. Each defect will include:

- Defect ID: A unique identifier.

- Summary: A brief description of the defect.

- Severity: Critical, High, Medium, Low.

- Priority: Indicates the urgency for fixing the defect.

- Assigned to: The responsible person for fixing the defect.

- Status: Open, In Progress, Resolved, Closed.

**13. Approval and Sign-off**

- Once all testing is completed and the system is verified to meet business requirements, a Test Summary Report will be generated and reviewed by:

- Project Manager

- HR Business Analyst

- Development Team Lead

- Sign-off will occur once all issues are resolved, and the system is ready for deployment.

**Conclusion**

This Test Plan outlines the strategy and process for testing the Shift Mapping, Weekly Off Mapping, and Time & Attendance modules of the HR Management System. By following this plan, the QA team will ensure the system functions as expected and meets business requirements, delivering a robust and reliable solution for HR operations.