

<Company name>

Test Plan

Revision B

Revision History

Description	Author	Revision	Date
First Draft		A	1/9/2019
Second Draft		B	
Added FTBT		C	

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Introduction:

The company has outgrown its current payroll system and is developing a new system that will allow for further growth and provide additional features. The software test department has been tasked with testing the new system.

The new system will do the following:

1. Provide the users with menus, directions and error messages to direct him/her on the various options.
2. Handle the update/addition of employee information.
3. Print various reports.
4. Create a payroll file and transfer the file to the mainframe.
5. Run on the Banyan Vines Network using IBM compatible PCs as data entry terminals.

1.1 Test plan Objectives

This test plan for the new Payroll System supports the following objectives:

1. Define the activities required to prepare for and conduct System, Beta and User Acceptance testing.
2. Communicate to all responsible parties the System Test Strategy.
3. Define deliverables and responsible parties.
4. Communicate to all responsible parties the various Dependencies and Risks.

2. Scope

2.1 Data Entry

Error messages to help direct the clerks through various options.

2.2 Reports

The system will allow the payroll clerks to print 3 types of reports. These reports are:

- a. A pay period transaction report.
- b. A pay period exception report.
- c. A three month history report.

2.3 File Transfer

Once the employee information is entered into the LAN database, the payroll system will allow the clerk to create a payroll file. This file can then be transferred, over the network, to the mainframe.

2.4 Security

Each payroll clerk will need a userid and password to login to the system. The system will require the clerks to change the password every 30 days.

1. Will be used by the automation tool to emulate payroll clerks.
2. 286 processor(minimum)

3. 4mb RAM

3. Test Strategy

The test strategy consists of a series of different tests that will fully exercise the payroll system. The primary purpose of these tests is to uncover the systems limitations and measure its full capabilities. A list of the various planned tests and a brief explanation.

3.1 System Test

The system tests will focus on the behavior of the payroll system. User scenarios will be executed against the system as well as screen mapping and error message testing. Overall, the system tests will test the integrated system and verify that it meets the requirements defined in the requirements document.

3.2 Performance Test

Performance test will be conducted to ensure that the payroll system's response times meet the user expectations and does not exceed the specified performance criteria. During these tests, response times will be measured under heavy stress and/or volume.

3.3 Security test

Security tests will determine how secure the new payroll system is. The tests will verify that unauthorized user access to confidential data is prevented.

3.4 Automated Test

A suite of automated tests will be developed to test the basic functionality of the payroll system and perform regression testing on areas of the systems that previously had critical/major defects. The tool will also assist us by executing user scenarios thereby emulating several users.

3.5 Stress and Volume Test

We will subject the payroll system to high input conditions and a high volume of data during the peak times. The system will be stress tested using twice (20 users) the number of expected users.

3.6 Recovery Test

Recovery tests will force the system to fail in various ways and verify the recovery is properly performed. It is vitally important that all payroll data is recovered after a system failure and no corruption of the data occurred.

3.7 Beta Test

The payroll department will beta test the new payroll system and will report any defects they find. This will subject the system to tests that could not be performed in our test environment.

3.8 User Acceptance Test

Once the payroll system is ready for implementation, the payroll department will perform User Acceptance Testing. The purpose of these tests is to confirm that the system is developed according to the specified user requirements and is ready for operational use.

4. Environment Requirements

4.1 Data Entry workstations

1. 20 IBM compatible PCs(10 0 mb Hard Drive)
2. DOS 3.3 or higher
3. Attached to Banyan Vines Network
4. A network attached printer
5. 20 user ids and passwords(10 will be used by the automation tool to emulate payroll clerks).

4.2 MainFrame

1. Attached to the Banyan Vines Network
2. Access to a test database (to store payroll information transferred from LAN payroll system)

5. Test Schedule

- | | |
|------------------------------------|-----------------------|
| 1. Ramp up/ System familiarization | 4/12/2019 - 4/30/2019 |
| 2. System Test | 5/1/2019 - 5/16/2019 |
| 3. Beta Test | 5/18/2019 - 5/31/2019 |
| 4. User Acceptance Test | 6/1/2019 - 6/5/2019 |

6. Control Procedures

6.1 Reviews

The project team will perform reviews for each Phase.(i.e. Requirements review, Design Review, Code Review, Test plan review, Test case review and Final Test Summary Review). A meeting notice, with related documents, will be emailed to each participant.

6.2 Bug review meetings

Regular weekly meetings will be held to discuss reported defects. The development department will provide status/updates on all defects reported and the test department will provide additional defect information if needed. All members of the project team will participate.

6.3 Change Request

Once testing begins, changes to the payroll system are discouraged. If functional changes are required, these proposed changes will be discussed with the Change Control Board (CCB). The CCB will determine the impact of the change and if/when it should be implemented.

6.4 Defect Reporting

When defects are found, the testers will complete a defect report on the defect tracking system. The defect tracking systems are accessible by testers, developers and all members of the project team. When a defect has been fixed or more information is needed, the developer will change the status of the defect to indicate the current state. Once a defect is verified as FIXED by the testers will close the defect report.

7. Functions to be tested

The following is a list of functions that will be tested:

1. Add/update employee information
2. Search/look up employee information
3. Escape to return to Main Menu
4. Security features
5. Scaling to 700 employee records
6. Error messages
7. Report printing
8. Creation of payroll file
9. Transfer of payroll file to the mainframe
10. Screen mappings (GUI flow). Includes default settings
11. FICA Calculation
12. State Tax Calculation
13. Federal Tax Calculation
14. Gross pay calculation
15. Net pay calculation
16. Sick leave balance calculation
17. Annual leave balance calculation

A requirements validation matrix will “map” the test cases back to the requirements.

8. Resources and Responsibilities

The Test Lead and Project Manager will determine when the system test will start and end. The Test lead will also be responsible for coordinating schedules, equipment and tools for the testers as well as writing/updating the Test Plan, Weekly Test Status reports and Final Test Summary report. The testers will be responsible for writing the test cases and executing the tests. With the help of the Test Lead, the payroll department manager and payroll clerks will be responsible for the Beta and User Acceptance tests.

8.1 Resources

The test team will consist of:

1. A project manager
2. A Test lead
3. 5 Testers
4. The Payroll Department Manager
5. 5 Payroll Clerks

8.2 Responsibilities

Responsible for Project Schedules and the overall success of the project. Participate on CCB	Project Manager
Serve as a primary contact/liaison between the development department and the project team. Participate on CCB	Lead Developer
Ensures the overall success of the test cycles. He/She will coordinate weekly meetings and will communicate the testing status to the project team. Participate on CCB	Test Lead
Responsible for performing the actual system testing	Testers
Serves as Liaison between the Payroll department and Project teams. He/She will help coordinate the Beta and User Acceptance testing efforts. Participate on CCB	Payroll Department Manager

Will assist in performing the Beta and User Acceptance testing	Payroll Clerks
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9. Deliverables

Completion Date	Responsibility	Deliverable
6/11/19	Testers	Develop Test Cases
6/12/19	Test Lead, Dev, Lead, Testers	Test Case Review
7/1/19	Testers	Develop Automated test suites
6/16/19	Test Lead	Requirements Validation Matrix
5/27/19	Test Lead	Obtain User ids and Passwords for payroll system/database
8/26/19	Testers and Test Lead	Execute Manual and automated tests
On - going	Everyone testing the product	Complete Defect Reports
Weekly	Test lead	Document and communicate test status/coverage
8/18/19	Payroll Department Clerks	Execute Beta tests
8/18/19	Payroll Department Manager	Document and communicate Beta test status/coverage
9/3/19	Payroll Department Clerks	Execute User Acceptance tests
9/3/19	Payroll Department Manager	Document and communicate Acceptance test status/coverage
9/5/19	Test lead	Final Test Summary Report

10. Suspension/ Exit Criteria

If any defects are found which seriously impact the test progress, the QA manager may choose to Suspend testing. Criteria that will justify test suspension are:

1. Hardware/software is not available at the times indicated in the project schedule.
2. Source code contains one or more critical defects, which seriously prevents or limits testing progress.
3. Assigned test resources are not available when needed by the test team.

11. Resumption Criteria

If testing is suspended, resumption will only occur when the problem that caused the suspension has been resolved. When a critical defect is the cause of the suspension, the "FIX" must be verified by the test department before testing is resumed.

12. Dependencies:

12.1 Personnel Dependencies

The test team will also need the following resources available:
Application developers and Payroll Clerks.

12.2 Software Dependencies

The source code must be unit tested and provided within the scheduled time outlined in the Project Schedule.

12.3 Hardware Dependencies

The Mainframe, 10 PCs (with specified hardware/software) as well as the LAN environment need to be available during normal working hours. Any downtime will affect the test schedule.

12.4 Test Data and Database

Test data (mock employee information) and database should also be made available to the testers for use during testing.

13 Risks

13.1 Schedules

The schedules for each phase are very aggressive and could affect testing. A slip in the schedule in one of the other phases could result in a subsequent slip in the test phase. Close project management is crucial to meeting the forecasted completion date.

13.2 Technical

Since this is a new payroll system , in the event of a failure the odd system can be used. We will run our test in parallel with the production system so that there is no downtime of the current system.

13.3 Management

Management support is required so when the project falls behind , the test schedule does not get squeezed to make up for one delay. Management can reduce the risk of delays by supporting the test team throughout the testing phase and assigning people to this project with the required skill set.

14. Approvals

Name(print)	Signature	Date
1.		
2.		
3.		
4.		