Functional Requirement Specification – Version 1

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CLIENT & PROJECT DETAILS

Client	Project Name
Payroll Management Reseller	Payroll Management System

REVISION LOG

Version	Date	Author	List of Modifications
1.0	May 19, 2014	Vignesh A	First Edition

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Purpose:

The document intends to capture the screens, features & functionalities of the Payroll system. The system has to be designed in such a way that it reduces the work load of the HR in the organization.
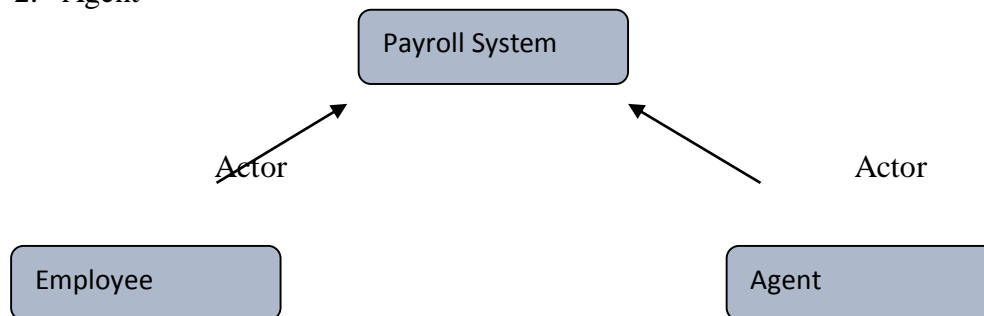
Design Specification:

The Payroll system design specifications have various phases and below are the functionality of each phase.

Phase 1:

Login Page:
The Payroll system consists of two kinds of users;

1. Employee
2. Agent

We need a switch option to toggle between the above two users in the login page.

By default, the login page should be for 'Employee'. I should be able to login as an employee by keying in the 'Username' and the 'Password'.

When I toggle to 'Agent', I should be able to login with agent's login credentials.

Username:

The User name can be their employee ID (eg: 01234 or P1234) there should not be any restriction on the digits. It can be combination of both numbers and alphabets.

The Username can also be in full form of alphabets (eg: Yuraj or Dhoni). The username should be case sensitive. But no two users should have same username.
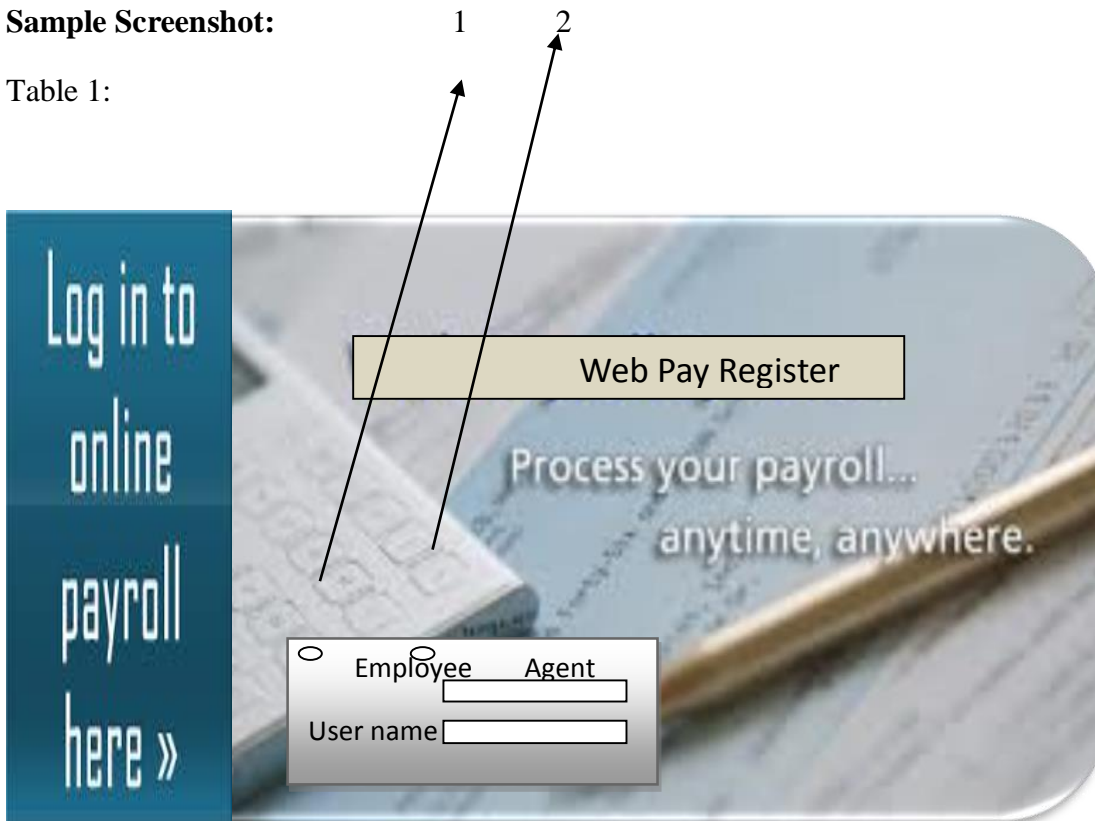
Password:

By default the password policy should contain the below and should be minimum of 8 characters:

    a. At least one small letter (eg: a, b, c etc..)
    b. At least one capital letter (eg: A, B, etc..)
    c. At least one number (eg: 1, 2, etc..)
    d. At least one special characters (eg: !, @, $ etc..)
    e. It should be case sensitive

Sample Screenshot: 1   2

Table 1:

Sample 2:

I should be able to set the company's logo in the login page.

I should be able to set any picture in the login page.

Validation:

1. The username should be unique for all employees and agents.
2. No two employees or agents should have same username.
3. The password of each employees and agents should go with the password policy.

Payroll Status:

Immediately after entering the log in credentials, system should switch to "Payroll Status" table(Refer 2 for sample screenshot).

By clicking the 'Payroll Status' tab, I should be able to view the 'Active', 'In active' and "All" employees.

Active employees: Active employees in payroll

Inactive employees: Inactive employees in payroll

All: Both Active and Inactive employees.

I should have a drop down to choose the list of employees to be displayed. By default it should display 'All' employees.

The dropdown should consist the below:

1. All
2. Active
3. Inactive

When I choose anyone of the above option, below details are to be displayed in the screen.

1. Employee no(Refer 5 from Table 4 to be shown). In case any changes made, then update accordingly from table 6.

2. Employee Name(Refer 6 from Table 4 to be shown). In case any changes made, then update accordingly from table 6.
3. Start date(Joining date)- Please refer Table 2 for the date format to be displayed. Start date should be picked from Table 4 (refer 2). In case any changes made, then update accordingly from table 6.

4. End date (LWD) - Please refer Table 2 for the date format to be displayed. In case LWD is not updated in table 6(refer 3), then it should be blank.

5. Paid till(month name) - Please refer Table 2 for the format to be displayed. Month should pick the last processed and locked month in payroll manager.

6. Offer generated- Yes or no. If it is generated, then yes, else it is no.

Once the employees are listed depending on the selection (All, Active, or Inactive), upon the current window shown in the grid, system should also able to download in a excel through the button "Export to Excel"(Refer 3 from table 2).

Table 2:   1   2   3

Payroll Status	Register (Only for agent)			User name	
Employee info	*Create * Edit			Change password	
CTC Template				Sign out	
Excel payroll importer				*Active *Inactive *All	
Offer generation	Employee no	Employee name	Start Date (24-Mar-2014)	End date (24-Apr-2014)	Paid till (Mar-2014)	Offer generated (Yes or no)
Timesheet details						
Payroll Mgr				Export to excel	

Under Payroll Status, I should be able to see the below details.

a. Employee information
b. CTC Templates
c. Excel Payroll importer
d. Offer generation
e. Timesheet details
f. Payroll manager.

"Register" button should be shown only for "Agent" credentials to create the user details and that makes the difference between an "Agent" and "Employee" credential all as a whole.

Once agent clicks on "Register" button, Create and edit option should be seen:

a) Create button: (Refer 1 from Table 2)- Only for agent credentials:

1) If Create button is selected, then agent should enter a new User name, e-mail ID and Type (Employee or agent in radio button)

2) All the above are mandatory

3) Once it is submitted, user name and Standard password to be sent to given e-mail ID.

b) Edit button: (Refer 2 from table 2)- Only for agent credentials:

1) If edit button is selected. Then agent should be able to search the user through user name. Search should be based on insensitive cases.
2) Once agent finds the user name: corresponding e-mail ID, Type, should be seen and same should be editable.
3) After the editing, agent should reset the password. A Standard password should be sent to e-mail ID, which has been updated.
4) A Standard password can be anything(Numbers or Characters or Numbers and Characters)
5) Triggered mail from password reset should be "Your Web Pay Register System Password is reset to "Standard Password"" with subject line "Password Reset".
6) User should also able to change the password as shown in table 2.
7) Session ID also to be followed, if the session is idle for more than 200 seconds, then it should expire automatically and it should start from the login page.

Employee information: **1**   **2**

Table 3:

- All the above details of employees to be shown over search button either with the help of employee number or with the help of employee name.
- Once employee is searched, it should display all other details as per above table on whatever has been stored on database (Table 4). In case, any changes made, then refer Table 6 for the updated information to be shown.
- Details should only be displayed and not to be meant for changes at any cause.
- Implies check box to be enabled either for Assign to payroll or for Terminated depending on the status updated in data base.
- "Previous change date" shown in above table should be the recent salary change date. Typically it should pick the field "Effective date" from Table 6(Refer 4)
- CTC Template name (Refer 1 from table 3) should be mentioned in the field of "CTC Template". CTC Template name will be created and assigned to each employee in the "CTC Templates" window (Refer 3 from Table 4). Typically it should refer the same.

CTC Templates:

The CTC Templates should consists of the below fields.

a. Employee no
b. Employee Name (Mandatory)
c. PAN No
d. CTC/Annum(Mandatory)

e. Department
f. Designation
g. Start Date(Mandatory)
h. Location
i. Bank Account number
j. Bank Name
k. IFSC Code
l. Account type in drop down(Savings & Current) (Mandatory)

1) To Create new employee information:

Table 4:   1   5   8   6   2   7   3   4

Manage Data Base:

| Create Button | | Edit the employee details | |

For the create button, the table should be made as below

Employee no [   ]   Employee name* [   ]   PAN no [   ]

CTC/Annum* [   ]   Department [   ]   Designation [   ]

Start Date* [Drop down Calendar field]   Location [   ]

Bank account details:

Bank account name [   ]   Bank account number [   ]

IFSC Code [   ]   Account type [   ]

[Save]

Payroll details:

✓ Assign to payroll

CTC template [Drop down box on available (Already created) templates]   [Create button]

List all the salary components (Annually) below upon the selection of CTC template and the CTC/Annum value.

[Save]

a) Once employee fills all the above parameters with respect to save button in the above table, user should be able to save successfully without completing the below Payroll details in table. Later on, user should be able to update the rest of the below details in "Edit the employee information (Table 6)". * Shows mandatory. It should not get saved without entering the mandatory details.

b) Only enabling the check box- Assign to payroll (Refer 7 from Table 4), all employee information has to be taken to "Timesheet details"(Table 9) window.

c) In the CTC template field(Refer 3 from Table 4) in the above table, already created template names should be displayed in drop down to assign to the employee. Once a template is selected, System itself should list all the salary components (Annually) with the help of selected template and the CTC/Annum (Refer 8 from Table 4). For instance, Base Salary mentioned in the selected template is given as CTC/Annum*12%, then base salary should be displayed as the calculated part as final result. For ex: CTC/Annum in above table is given as 300000, then Base salary should be 36000/Annum. Similarly all the salary components mentioned in the selected CTC template should be calculated and displayed accordingly in the table 4.

d) To Create the new template, Create button (Refer 4 from Table 4) has to be given as per above table. Once Create button is selected, then table should be shown as below:

Table 5:

e) Once table is displayed as above, user should be able to copy with already available templates. So once copy template is given, user should be able to select a template and after selecting the template, salary components of the particular template should be listed below as shown above in the table 5. And then user can edit the salary components details and save the changes in a new template name.

f) In case if an user wants to write a new template without copying the template, then user should be able to write the salary component, formula as per above table.

g) However the formula should be picked according to the user input.
For instance, Base salary is a salary component, and the formula is given as CTC/Annum*12%, then system should consider the CTC/Annum value (Refer 8 from Table 4) for the calculation

purposes. Similarly, calculation should happen for all the salary components in case formula is given from user end. User can also give as 'I' rather than formula. "I" is the punch value, where values can be written directly by the user later in the table 4.

h) Once user save the template with a new name after including all the salary components, then the newly created template name also to be shown in the CTC template field (Refer 3 from Table 4) as a drop down.

i) Upon the selection of Template (Refer 3 from Table 4) in drop down, system itself should list all the salary components with the calculated values. In place of "I", where user given in the templates during the creation, user should able to enter the values directly.

2) To Edit the employee information: (from Table 4)

Table 6:

a) User should be able to search the employee details either with the help of Employee no or Employee name.
b) Once the employee is searched, the employee details should be displayed whatever created in the "Create" Window(from table 4) and from the "Excel Payroll Importer"(Table 8)

c) User should also be able to change all the details shown above in table and save the changes. However, the changes made should not reflect in the already processed payroll and it should be effective from upcoming payroll only. In case effective date (Refer 4 from Table 6) is previous to current month, then salary has to be adjusted in upcoming payroll accordingly.

d) Only if "Assign to payroll" check box is enabled in above table, the employee information has to be brought to "Timesheet details" window.

e) CTC Template field (Refer 1 from Table 6) and Create template (Refer 2 from Table 6) button work similar to Create button under CTC Templates from table 4.

f) "Termination" check box to be made and in case if termination button is enabled, then system should feed for date near by(Refer 3 from Table 6), where calendar field should be made to select the Last Working Day.

g) Effective date should also be selected. However, effective date should not be lesser than Start date (Refer 6 from Table 6) mentioned in the table.

h) However, in case if Payroll is processed with the help of start date at least once, then user should not be able to change the start date as it has to throw an error saying (Timesheet details and payroll has been processed already for the month of start date. So, it cannot be changed).

i) Once user clicks on Salary history(Refer 7 from table 6), then a window has to be shown as per below: Table 7:

Salary history should include the table as below:

Effective date	Salary comp 1	Salary comp 2	Payroll made(March-2014)	CTC Template name
(24-Apr-2014)	In Annum	In Annum		

Each salary component has to be shown in each column with effective date (refer 4 from table 6) given by the user and the corresponding template name (Refer 1 from Table 6) should be displayed for each effective date.

Excel Payroll Importer:

Excel Payroll Importer should consist of below fields. The below fields are same as CTC template created for the employees individually. Here in Excel Payroll Importer, all the employee information including CTC Template details(Table 4 details) are entered all in one shot through an excel sheet.

a. Employee no
b. Employee Name (Mandatory)
c. PAN No
d. CTC/Annum(Mandatory)
e. Department
f. Designation
g. Start Date(Mandatory)
h. Location
i. Bank Account number
j. Bank Name
k. IFSC Code
l. Account type
m. "Assign to payroll" column to be mentioned so that it should be enabled through excel sheet before importing the same.
n. "CTC Template name". Under this column, template name to be mentioned in excel sheet to import the same. Since template name is given, list all the salary components in table 4 and in table 6 after the import.

All the above details should be entered in an excel for "n" number of employees and same has to be imported in the below table.

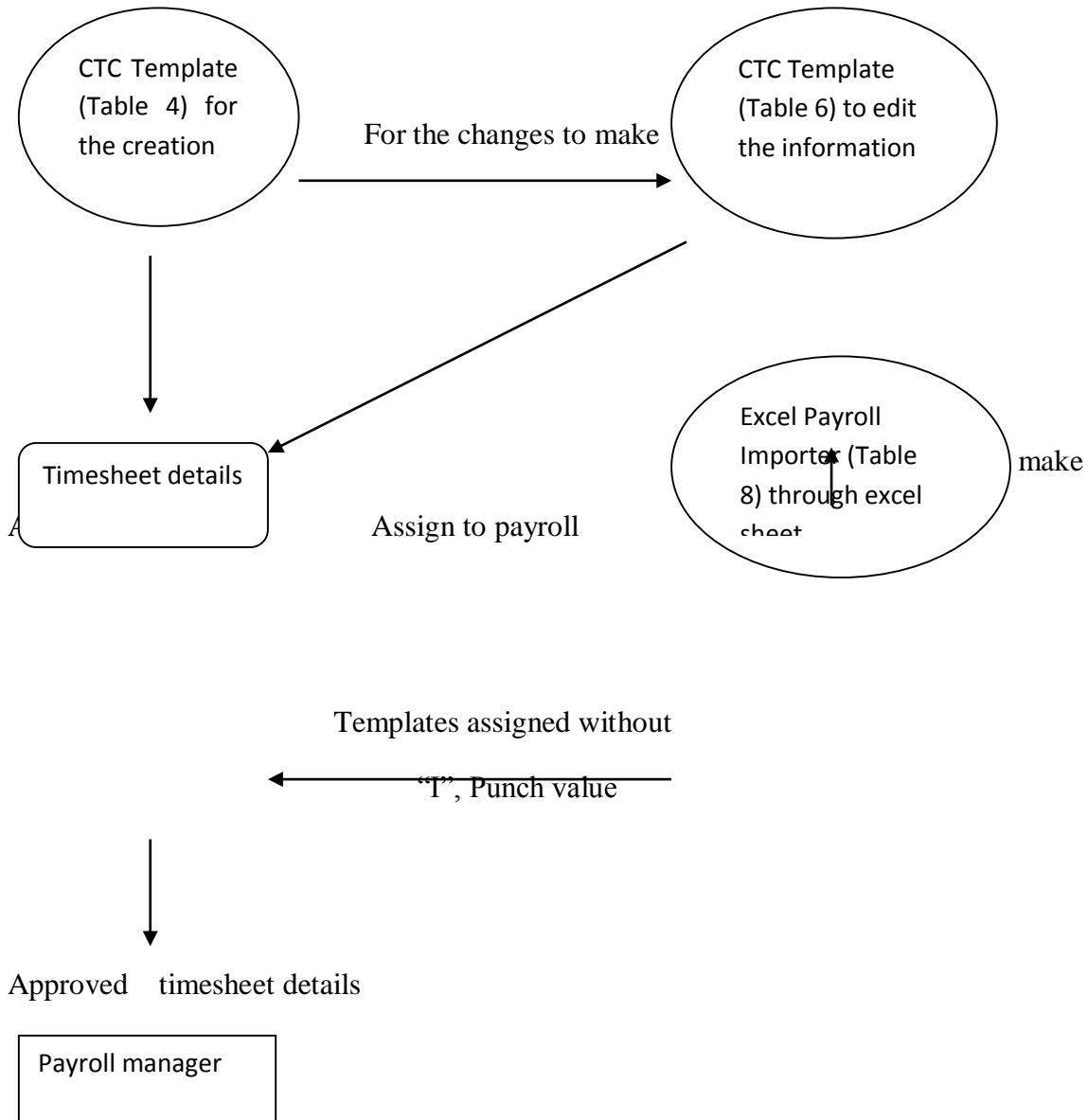Table 8:   1   2

I. All the new employee information details (as of table 4) have to be imported through import button (Refer 1 from Table 8).

II. All the mandatory details have to be entered before uploading the same.

III. Updated information should be able to seen in table 6 and the appropriate fields in table 3.

IV. The updated information can able to change the details through table 6.

Excel Payroll importer based on employee no/ employee name:

Effective Date to be entered as Sample- "24-Apr-2014" (Mandatory) for this import.

V. After exporting the employee information, in case CTC template name, which contains 'I', Punch Value for the salary components, then the values can also be entered under each salary component name(In excel sheet) matching the template given already/imported already. The salary component- 'I', punch value matching under the templates should be imported through "Import Button" (Refer 2 from Table 8) based on employee no or employee name.

VI. Once it is uploaded successfully, then save the same. Whatever the punch value imported through "Excel Payroll Importer", punch value also has to be shown in table 6. In such cases "Effective date" has to be given as Start date of employee before importing the same.

VII. In case, user try to import the value of a salary component through Excel Payroll Importer, which is not a punch value, then it should throw an error, saying "Mismatch salary component occurred".

VIII. In case, salary changes occurred for the set of employees, then one can update based on employee number or employee name as that of punch value entries. Here effective date will be the salary effective date, which has to be reflected in table 6

So typically the core idea is:

CTC Template (Table 4) for the creation

For the changes to make →

CTC Template (Table 6) to edit the information

Timesheet details

Assign to payroll

Excel Payroll Importer (Table 8) through excel sheet

make

Templates assigned without

← "I", Punch value

Approved   timesheet details

Payroll manager

Timesheet details:

- All the Employee details, which have enabled the check box "Assign to Payroll", have to be listed in Timesheet details.

Table 9:   1   2   3   4   5   6   7 10 8   9

Tab name: "Timesheet details"

Period   [Drop down box from Jan-Dec]   [Drop down box from 2010-2020]   [Load Employees for the specified period]

[Disapproved timesheets]

List all the eligible employees who fall under the specified period.

Emp no	Emp name	Start Date of the mentioned period	End Date of the mentioned period	Actual-31 or 30. (Depending on month specified above)	Worked days- (Actual-LOP)	LOP-In default it should be "0". Depending on period between LOP start date and LOP End date, no should reflect here.	Approve check box to be enabled in default	Last updated till(25-Apr-2014)	LOP Start date (26-Apr-2014). "+" symbol to add more LOP.	LOP End date (30-Apr-2014). "+" symbol to add more LOP.

[Save]   [Cancel]

- Start date (Refer 1 from Table 9) of the mentioned period should be the first day of the particular month. Example: 01-Mar-2014. Similarly End date should be 31-Mar-2014. However, if an employee start date falls on middle of the month, then start date should be the Start date (Refer 6 from Table 6) of an employee.

- Difference between start date (Refer 1 from Table 9) and end date (Refer 2 from Table 9) is the number of actual days (Refer 3 from Table 9).

- In Case if an employee's timesheet is not approved for previous month, then start date and end date should show the timesheet for both the periods in the current month as two separate rows(01-Mar-2014 to 31-Mar-2014 in a row) and (01-Apr-2014 to 30-Apr-2014 in an another row).

- In case LWD date (Refer 3 from Table 6) is given, then end date (Refer 2 from Table 9) should be the LWD Date.
- Always ensure that start date or end date or period between the start date and end date should fall on the open period (unprocessed payroll period).

- In case LOP is there, then LOP Start date(Refer 8 from Table 9) and LOP End date (Refer 9 from Table 9) details have to be entered by the user. In case only one day is LOP, then start date and end date should be the same.

- In case there are few periods between start date and end date are LOP, then corresponding start date and end date to be entered in different rows. For example, 20th march, 21st march, 27th march to 29th march are LOP, then LOP Start date to be entered as 20th March and 21st March in LOP End date in a row, where in LOP(Refer 5 from Table 9) should be 2 days displayed by system. Then user should also be able to add separate row, LOP Start date should be mentioned as 27th March and LOP End date should be mentioned as 29th March, where in LOP(Refer 5 from Table 9) should be 3 days. So the difference between LOP Start Date (Refer 8 from Table 9) and LOP End date (Refer 9 from Table 9) should be LOP (Refer 5 from Table 9), which will be displayed automatically by system.

- Number of working days (Refer 4 from Table 9) will be Actual number of days (Refer 3 from Table 9) – LOP (Refer 5 from Table 9).

- Then approval has to be enabled (Refer 6 from Table 9) through a check box for all the items.

- Once approval is given, the data has to be taken to payroll manager.

- Once payroll is processed or locked for a particular month, then timesheet details for the corresponding month will be able to only view the approval information rather than to edit.

- In the next month timesheet, the system should show the start date as the next day of end date mentioned in the current month timesheet in default.

- Once user clicks on Disapproved timesheet(Refer 10 from Table 9), the table should be shown as below:

Table 10:	1	2	3		4	5	6

Emp no	Emp name	LOP Start Date	LOP End Date	Approved(Enable the check box) to process the LOP	LOP days to be Processed(Automatic display by the system upon the approved checkbox)	Revised LOP Start date	Revised LOP End Date

Tab name: "Disapproved Timesheet"

[Save Changes]   [Cancel]

- Immediately after opening the above window, system should list all the employees whoever got the LOP in any previous months, which is not processed.

- Those employee details with above table along with respective fields have to be displayed. However, initially Revised LOP start date (Refer 5 from Table 10) of current month and Revised end date (Refer 6 from Table 10) will be the LOP Start date (Refer 1 from Table 10) and LOP End date (Refer 2 from Table 10) respectively.

- In case there is one day LOP and few periods between start date and end date are LOP for an employee, then corresponding start date and end date to be shown in different rows.

- In case if user tries to approve the LOP, where difference between LOP Start date(Refer 1 in table 10) and LOP End date(Refer 2 in table 10) is more than 1 day, then a window to be opened seeking, which dates to be approved. Once the dates are approved, the disapproved dates should sit in the revised LOP start and LOP end date accordingly. Any changes can be done before processing the payroll. Once payroll is processed or locked, then disapproved timesheet(Table 10) and timesheet details(Table 9) should be only be displayed rather than to edit.

- In case one day LOP is there and it is approved now to process the LOP, then the field of both Revised LOP Start Date(Refer 5 from Table 10) and Revised End date (Refer 6 from Table 10) should be blank so that it won't appear in next month disapproved timesheet for the approved dates. However it should happen only after the payroll is processed or locked.

- Depending on the number of days approved in Table 10, LOP Days (Refer 3 from Table 10) should be processed and get it saved.

- Once it is approved and saved the changes, the window should return to timesheet details (to table 9) window and system should automatically include the approved LOP days in

separate row(s) to process in payroll manager. The separate row should show the user as "LOP Correction"

Payroll manager:

- This is the final step in payroll process, where salary will be processed with all the information obtained in the system.

Table 11:   1   2

Tab name: "Payroll Manager"

| Period | Drop down box from Jan-Dec month | Drop down box from 2010-2020 year | Load employees for the specified period |

List all the approved employees in timesheet for the corresponding period

Emp no	Emp name	Salary Comp 1	Salary Comp2	Gross pay(Depending on Salary category)	Deduction 1	Net Pay	Bank Account name	IFSC Code	Bank Account number

Process   Lock   Export to excel after locking the payroll

1) List all the employees, whose timesheet details are approved.

2) List all the salary components included in the template as "earning" Radio button (in table 5) in each column against the particular employee.

3) Gross pay(Refer 1 from Table 11) to be mentioned in values which is nothing but addition of all salary components given in the table (Table 5) as "Earning" radio button. However

in case if a salary component is given as "Deduction not shown in pay slip", then it should not add into the Gross pay in payroll manager.

4) List all the salary components included in the template as "Deduction" Radio button (in table 5) in each column against the particular employee.

5) Total deductions would be the total number of deductions components assigned in (table 5) as radio button.

6) Net pay (Refer 2 from Table 11) should be Gross pay- Total deductions.

7) If timesheet is approved for previous month, current month and in case if payroll is not processed for previous month for an employee, then payroll manager should process the salary along with arrear payment as previous payroll will be locked and timesheet is approved for previous month as well. So typically it has to be processed till the current month end date provided, timesheet should have been approved. Make sure, there should not be any second time payment for the same period.

8) Payroll should be calculated based on total number of actual days(Refer 3 in table 9) with respect to particular employee approved in timesheet (Should be in denominator) and the total number of worked days(Refer 4 in table 9) shown in approved timesheet(Should be in numerator) multiplied by individual salary components(Both earnings and deductions) assigned to the particular employee.

9) All the LOP correction details, salary changes, which need to be processed along with arrears of the particular salary component. However, all needs to be done in a single row.

10) "Employer cost" to be added in grid in payroll manager, which includes the gross pay and the salary component which shows "Deduction not shown in pay slip" radio button.

11) Arrears for each salary component should be shown in separate column stating arrears of that particular salary component. Find attached for more details:

Worksheet in Final
preparation (Compati

12) Once payroll is processed, lock option should also be there.

13) Once it is locked, it should get export to excel sheet as attached just above.

SCALABILITY:

The modules will be developed based on code optimization and will withstand maximum load and there won't be any performance lag.

COMPATIBILITY:

The application will be compatible with all major versions of browser.

TESTING / EVALUATION:

I.   Detailed test based on a test plan will be carried out by the user.
II.   Any Technical issue reported during testing will be corrected and testing will be repeated for that module alone.
III. The modules will prove consistency for repeated cycle of tests.

WARRANTY:

This includes free lifetime warranty from remote. Any issues reported which affects the functionalities of the accepted modules will be fixed under the scope of warranty without any extra cost.

TECHNICAL EXPERTISE:

- ✓ **Operating Systems:** Windows
- ✓ **Programming Language:** Java
- ✓ **Database:** MySQL 5
- ✓ **Web Server:** Apache web server
- ✓ **Application Server:** Apache tomcat 7

ESTIMATED TIME EFFORT:

Development Effort = 35 PD

Testing Effort = 10 PD

*PD = Person Days

*1PD = 8 Working Hours

TEAM SIZE:

Project Manager: 1

Developers: 2

Testing Team: 1

Total Team Size: 4

COST:

Development Cost	42,000 INR

HOSTING AND SUPPORT:

Our support team take on the burden of supporting your customers, freeing up your time for other tasks. This allows you and your team to focus on sales, marketing, and building our hosting company while we work hand in hand with your clients. It's up to you just how much control you allow. For some clients we have full SSH access and we support their web hosting clients regardless of the technical requirement. However, others choose to restrict access and we work with their clients to provide first level triage and

customer service. Our Server Monitoring service allows us to keep a close eye on your hosting servers. We can minimize downtime and identify areas of need quickly and correct them efficiently. If you have Support package with us, the cost is only $20 per month per server (Server Monitoring only pricing: Each application will be hosted in a separate server, additional server needs such as bandwidth, disk space, etc.) Server datacenter will be U.S based and fully loaded with features.