**Synopsis:**

**Project Name: Payroll Management System**

1. **Introduction:**

Payroll Management system aims at generating the salary of the employees automatically every month.

This software is also equipped with the options to enter the attendance of each employee in an organization.

It helps them to track each employee attendance, based on which the salary is generated for each employee.

This software also contains other different modules such as Over Time Entry, Leave Slips, Advance salary Entry, Loan Entry on which the overall salary of an employee is calculated based on the deductions from these modules.

The software also generates individual pay slip and summary of the each employee based on their departments in which they work.

It also provides an efficient way to sort employee based on their department, category, etc.

It also has option to generate the report for Provident Fund, ESIC, Maharashtra Labour Welfare Challan and Professional Tax.

So they can take the print out of Provident Fund, ESIC, Maharashtra Labour Welfare Challan and Professional Tax to submit to the department.

1. **Objective:**

The main objective of this software is to automate the existing system and to provide an easy way not only to calculate salary but also to generate full-fledged reports on every module in the software.

This software aims at providing every minute detail about employee as well as his salary and his earning and deductions every month.

This software aims at generating salary of an employee just by entering very basic details about the employee.

It aims to provide the data entry person with a high speed system which reduces the work burden on them.

1. **Scope:**

This software is a desktop based application which can work on multiple PCs when installed separately on each of them.

But in future this software can be made online where the database can be hosted online on web servers.

This will facilitate to manage all the departments located at different places by keeping the domain of Application as online.

The scope of this software also depends upon the hardware specifications of the existing systems.

This specification defines the non-functional requirement of the system such as:

***Functionality:***

As this software is a stand-alone application, one user can use it at a time.

***Usability:***

Desktop Interface.

Window 2007 and above.

***Reliability:***

This software is reliable as it is developed in advanced language providing a better security to the new system developed.

***Performance:***

The performance depends upon the hardware configuration of the available system in the Company.

1. **The Existing System:**

The existing system is developed with Visual FoxPro in a MS-DOS Environment.

As the system is DOS based, it requires the user to type commands every time a data is to be accessed.

The user of the existing system needs to be an expertise in FOXPRO as well as MS-DOS commands.

It consumes a lot of time to view any details as it lacks a “Graphic User Interface”.

1. **Limitation Of The Existing System:**

* Provides a MS-DOS environment.
* Does not have a graphical user interface.
* Commands are needed to access anything.
* Time consuming system.
* Expert FoxPro professional is needed to handle the software.
* It is not suitable for normal professionals.

1. **Background Of The Organization:**

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Arviva Industrials (I) Ltd. established in 1985, is an internationally reputed manufacturing & marketing company operating in the field of multi-fibre& blended suiting fabrics & garments for both Men and Women.

Within India, AIL has created a strong brand presence due to its in-depth manufacturing & marketing expertise.

Arviva's brand, "The Harry Collection" is highly recognized for its contemporary & innovative product offering and its total commitment to quality.

These strengths have also helped the company carve out a niche for itself in the "World International Fashion", AIL is a fabric "supplier of choice" for some of the biggest fashion apparel brands worldwide - Haggar, Perry Ellis, Burtons, Zara, Marks & Spencer, Asda, Matalan, C&A, G2000 - to name only a few.

1. **Current Problems:**

The current system that is developed in Visual FoxPro is facing few problems due to the limitation of the language used and the databases used.

The problem faced by the existing system is as follows:

1. No Graphical User Interface.
2. No reliable database system.
3. Not user friendly.
4. Not Interactive.
5. Consumes lot of time.
6. **Areas Of Improvement:**

By using computer based Payroll Management System Project, it saves time, space and effort. Its user can simply click the button using menus for the following activities:

* Adding Employee Information.
* Deleting Employee Information.
* Generating reports.
* As each table will be associated with other table, such users do not have to update information repeatedly.
* Users can create table as per their requirement and size.

1. **Proposed System and Its Advantages:**

The proposed software will solve all the problems they are facing now.

The proposed system has a well structured form for each module which will facilitate the operator to operate the software efficiently.

This system does not make use any command based languages so time consumed to operate the system is reduced greatly.

This software is designed such way that it will generate the salary automatically every month in time.

This software also equipped with to enter the attendance of each employee in the organization, it help them to track each employee attendance, based on this we can generate the salary.

The software is built to generate individual pay slip and summary of the payroll. It also has option to generate the report for Provident Fund and ESIC.

**Advantages Of Proposed System:**

1. Provides a graphical user interface.
2. It is user friendly.
3. No Professional operator required to handle this system.
4. It is reliable.
5. Saves a lot of time.
6. Provides good printable formats of the form and reports.
7. No major maintenance required.
8. Password protected system.
9. Equipped with a strong database (Microsoft SQL Server 2008).
10. Quick view of any reports on a single mouse click.
11. **Module Description With Input And Output Requirements:**

***Employee Master:***

This module helps to add the details of the employee like the personal detail and the employee detail.

There are two sub categories in this module.

These are Official Details and Personal Details.

**The Input Requirement for Official Details is as follows:**

EmpId, CategoryCode, DepartmentCode, Designation, DateOfJoining, Confirmation, DateOfConfirmation, DateOfLeaving, BankName,BranchName, AccountNumber, IFSCCode, PFAccount, PFNo, ESICAccount, ESICNo.

The EmpId is auto generated by the system depending upon the category code of the employee.

The Category Code is divided into three parts i.e. R-Retainer, S-Staff, E-Executive can be selected from the ComboBox provided.

The EmpId is generated on the basis of this code.

Example: If the Category Code of the Employee is R-Retainer, then the EmpId generated will be as R-1, R-2, etc.

The Department can be selected from the ComboBox provided. The Departments is updated from the DepartmentUpdate module. The changes will be reflected in the ComboBox.

**The Input Requirement for Personal Details is as follows:**

EmployeeName, Father’sName , Mother’sName, Gender , DateOfBirth, Age, MaritalStatus, SpouseName, BloodGroup, Caste, Category, Religion, Nationality, EducationalQualification, Experience, Address, MobileNumber, EmailId, PermanentAddress, MobileNumber.

**Add Button:** The Add button checks whether all the mandatory fields are entered or not. If not, the user is prompted to enter those details. After all the fields are entered, the data is saved into the database.

All the fields marked with asterisk (\*) are mandatory to be entered.

**Update Button:** The update button updates any details of the employee changed.

This button first searches the employee based on the department and Employee Id and displays the contents in the respective fields in editable mode.

**The Output generates in this modules are as follows:**

**Print Button:** The print button generates the details of the employee in Crystal Report which can be printed using the print button.

**View Button:** The view button displays the details of the employee based on the department and Employee Id. All the details displayed here is in non editable mode.

***Attendance:***

This module keeps track of the attendance of employees on a daily basis.

It also generates reports of attendance on monthly basis.

**The Input requirement for attendance module is as follows:**

Department, EmployeeId, Date, Status, InTime, OutTime.

**Save Button:** The save button saves all the details of this module in the database after confirmation. It first checks whether all the mandatory fields are entered and then saves it.

**New Button:** It allows user to open new form for another attendance entry.

**The Output Produced by this is module is as follows:**

The attendance module doesn’t produce any specific output but rather it calculates and stores the total working hours and Over Time in the respective table on the basis of InTime and OutTime on the per day basis.

When Department and EmployeeId are entered, the Name and designation of the employee is automatically displayed on the form.

***Over Time:***

This module keeps record of the over time that the employee does.

This module does not take any explicit input from outside rather it calculates the extra number of hours based on the in time and out time in the attendance entry.

***Advance:***

This module is used to take the salary of next month in advance.

**The Input requirement for advance module is as follows:**

EmployeeId, Name, Department, Month, AdvanceAmount.

Whenever the salary of the next month will be generated the AdvanceAmount is directly deducted from the salary of that month.

**Save Button:** The Save Button first checks whether the required amount can be given as advance or not. If yes then the advance is granted and the details are stored in the database.

**The Output requirement for salary module is as follows:**

**New Button:** It opens new advance form.

***Leave Entry:***

This module contains the yearly leave that the employee receives at the beginning of each year.

This module grants leave to the employee based on the number of remaining leave and affects the salary module as and when required.

**The Input requirement for leave module is as follows:**

EmployeeId,Designation, Leave Type, From, To, Reason, Address, Sanctioned by.

**Save Button:** The system first checks the Type Of Leave and From and To Date and the compares it with the number of leave left for that particular employee in the database. If the number of leaves is less than or equal to the number of leaves balance then the leave is granted else appropriate message is displayed.

**New Button:** It allows user to open new form for another employee’s leave entry.

**The Output Produced by this is module is as follows:**

No. of days, Balance as on specific date, Leave earned during the year, Total Leave due as on specific date.

Whenever EmployeeId and Department are entered Employee Name, Designation and Leave status of that particular employee is displayed.

***Department Update***

The department update form is used to add the new department with its Department Id.

The Department Id is auto generated by the system.

**Eg:** D-1,D-2,D-3…………….etc.

**The Input requirement for salary module is as follows:**

The input taken by this form is the Department Name.

**Add Button:**

The Add button adds the new department to the database with Department Name and Department Id.

**The Output requirement for salary module is as follows:**

Whenever new Department is added it is displayed in the data grid view.

***Salary:***

This module helps to calculate the salary by adding the allowances and the basic salary and by deducting the deductions based on leave, over time, attendance, advance and loan modules.

It also helps to generate the employee pay slip.

This module helps to generate salary of the employee on monthly basis.

**The Input requirement for salary module is as follows:**

Rate per Month/Day, Basic salary, HRA, DA, Other Allowance.

On basis of these input fields, the Gross salary of an employee is calculated.

The deductions are calculated on the basis of the following fields:

Advance, Loan, Provident Fund, ESIC, Professional Tax, Labour Welfare Fund.

The Advance and Loan amount to be deducted is entered automatically when the Advance and Loan form is filled and saved.

The Provident Fund, ESIC, Professional Tax, Labour Welfare Fund is calculated automatically based on the Basic Salary Amount entered in the Employee Master module.

On basis of these deductions, the total deduction is calculated.

The net payable salary of a particular employee is calculated as follows:

Net Payable Salary= Gross Amount Payable – Total Deductions.

**Save Button:** When Save button is clicked all salary details of particular employee with their deductions and net payable amount is saved in the database.

**The Output requirement for salary module is as follows:**

Based on the input of all the above fields, the salary module automatically calculates the salary of the particular employee

**View Button:** It displays the salary report of the employee on monthly basis which includes the following:

1. Employee details such as EmployeeId, Employee Name, Department and Designation.
2. Salary Details such as Rate per Month/Day, Basic Salary, HRA, DA, Other Allowance.
3. Deductions details which include Advance, Loan, Provident Fund, ESIC, Professional Tax, Labour Welfare Fund.
4. Finally, the Net Payable Amount of that particular month.

This report is generated in printable format.

**New Button:** On clicking this button all the above mentioned fields are cleared and new form is opened so that salary of the next employee can be generated.

***Loan:***

This module keeps track of the loan taken by the employee, Amount of Loan Requested, Loan to be paid in number of instalments as well as Guarantor’s details.

**The Input requirement for loan module is as follows:**

Emp. No., Loan Requested Form No., Name, Department, Designation, Date Of Appointment, Present Basic Rs., Loan Requested Rs., Reason for request for loan, No. of instalments, Recommendation of the Head Of The Department.

Guarantor’s Details such as Emp No., Name, Loan Balance Amount.

Amount Sanctioned Rs., Paid On Date.

From the above fields when user enters Emp No. and Designation all the details of the employee such as Employee Name, Department, Present Basic Salary and Date Of Appointment is automatically filled.

User need to enter the details related to loan such as Loan Requested Rs., Reason for request for loan, No. of instalments and Recommendation of the Head Of The Department.

The details of two Guarantors are mandatory to be given.

The Amount Sanctioned and Paid On Date is entered by the user.

**Save Button:** It checks all the constraints of the fields mentioned above and then saves it in the database which helps to generate salary of the employee.

**The Output requirement for loan module is as follows:**

This module does not produce any output but helps in deducting instalments every month from salary module.

**New Button:** If user wants to enter Loan Form of other employees then on clicking this button a new form is opened.

**Report:**

This module generates the below mentioned reports:

1. **Employee details (Department wise).**

It displays the personal and official details of a particular employee. The employee register displays two types of reports: Either the details of the individual employee will be displayed or the department wise details of the employees will be displayed as per the demand.

It also has the print button to print the details.

1. **Attendance reports (Month Wise).**

It generates the attendance report of an employee on monthly basis.

It displays total number of working hours each day of a month and on the basis of this total number of hours the employee has worked is displayed.

1. **Salary sheet.**

The monthly salary report of an employee is generated in this report.

The report displays the basic salary, HRA, DA, Other Allowances granted. It also displays the deductions which include Advance, Loan, PF, ESCIC, PT (Professional Tax), LWF (Labour Welfare Fund).

The report also displays the Gross Payable Amount, Total Deductions and Net Payable Amount.

1. **Overtime register.**

The number of extra hours that employee works than their regular working hours is maintained in this register.

1. **Leave register.**

The leave register displays the leave balance of an employee.

Leaves such as SL, CL, PL, etc. are maintained.

1. **Advance register.**

This register maintains the records of those employees who apply in advance for the next coming month salary.

1. **Loan register.**

This module maintains the records of employee who has Company Loan on them.

It shows the details of employee who has taken loan from the company.

It displays their total amount and the number of instalments and the amount of each instalment of the employee as well as guarantor’s details.

1. **ESIC Challan.**

It maintains the record of Employee State Insurance with employee and employers shares respectively.

It displays the Employer’s and the Employee’s contribution to the insurance.

1. **Provident Fund Challan.**

This report is generated on a monthly basis.

It maintains the record of Provident Fund with employee and employers shares respectively.

There are three types of particulars that are displayed here i.e. Employer’s Share, Employee’s Share and Admission Charges.

There are five types of accounts i.e. A/C No.1, A/C No. 2, A/C No. 10, A/C No. 21, A/C No. 22.

The Employer’s and Employee’s share are distributed among these accounts and the final total is displayed.

1. **Maharashtra Labour Welfare Challan.**

It maintains the records of those employees who are beneficiary of Maharashtra Labour Welfare scheme.

1. **Professional Tax Challan.**

It maintains the details of each employee’s Professional Tax Deductions.

1. **Hardware And Software Requirement:**

* **Technologies Used**

1. **Front End**- VB.Net-2010
2. **Back End**- My SQL Server-2008

* **Software Requirements**

1. Windows 7 or above.
2. Visual studio 2010 Professional.
3. My SQL Server 2008.

* **Hardware Requirements**

1. Processor – Pentium IV or higher version.
2. Ram – 50 MB.
3. Hard Disk – 100 MB.
4. Monitor.
5. Keyboard.
6. Printer.
7. Mouse.