This is a group project work that students will do throughout the semester. This is to enable them demonstrate practically the Web Application Development skills acquired during the course of study and use PHP plus other technologies to build a Web application. This is a student group project work that will be done in pairs of two.

**Web Application for Human Resource Management: Reliance Financial Services Limited**

Aspire Financial Service Limited has a number of employees who help to achieve the set objectives outlined by the organization. As the company grows it needs more employees to expand its wings and to a large extent Human Resource Manager, it is a real pain to organize and keep tabs on the human resource data. The continuous growth of the company demands that employees data be well managed than before, this requires that the Human Resource Managers will have to work to keep data accurately and uncluttered.

Reliance Financial Services Limited recognizes the importance of good management of human resource data by implementing a web application to address this concern. Note that doing all human resource work manually is a time consuming, tiring and painful work for the human resource managers and administrators.

All the enumerated problems may be solved by having a web application that covers human resource management from employee’s personal data, employee attendance, to payroll data.

This project is devoted to providing Reliance Financial Services Limited with a human resource web application system to enable the company to computerize its human resource functions.

**System Description**

The human resources management (HRM) web application is intended to be created to include the best practices for handling human resource department within the company.

The proposed system will allow for improved performance in the job functions of employees in the various departments. The system will make possible the following:

* Keep electronic record of employee’s information, benefits, education, adjustments, evaluations, and requests instead of paper files that needs extra space
* Working electronically will make it easy to complete tasks
* There will be facilities that will enable retrieval of data easy
* The system will be flexible to add, delete, edit, for employee record and all the needed information belonging to the human resource department

**Goals**

The aim of this project work is to develop a human resource web application to increase the efficiency and performance of the human resource department.

**Objectives**

The idea is to build a web application deploying PHP plus other web technology to increase the performance and organization of the company’s HR system by incorporating these sections:

* Rules section
* Compute the gross salary
* Compute the net salary, promotion percentages and loans
* Detailed report section
* Direct email communication
* Statistical charts
* Training sections
* Vacations sections
* Attendance

Human Resource Management System entities and their attributes:

* Employee Entity: Attributes of Employee are employee\_id, employee\_name, employee\_mobile, employee\_email, employee\_username, employee\_password, employee\_address.
* Trainings Entity: Attributes of Trainings are training\_id, training\_employee\_id, training\_registration, training\_name, training\_type, training\_year, training\_description
* Vacation Entity: Attributes of vacations are vacation\_id, vacation\_employee\_id, vacation\_from\_date, vacation\_type, vacation\_to\_date
* Departments Entity: Attributes of Departments are department\_id, department\_name, department\_type, department\_description
* Salary Entity: Attributes of Salary are salary\_id, salary\_employee\_id, salary\_amount, salary\_total, salary\_type, salary\_description
* Attendance Entity: Attributes of Attendance are attendance\_id, attendance \_employee\_id, attendance\_date
* Evaluation Entity: Attributes of Evaluation are eval\_id, employee\_id, eval\_value,notes

**Description of procedures and functions:**

This section will explain the major functions of HRMS. So the major functionality of the project such as authentication mechanism, personal data processing, recruitment, are explained step by step.

**Authentication**

* Login user: can login to the HRMS system with his/her username and password.
* Logout user : can logout from the HRMS system.
* Login failure : if the user does not exists in the database or the user did not get authorized by the HRMS admin yet.

**Authorization**

* User role check: after logging in, the user role will be checked from the database and the user interface will be created according to that role/roles.

**Process data**

* Display : user with defined roles can display the content of the database. Being more specific, employee can only view his/her personal information. Manager can see not only his/her personal information but also employees’ information who are working under his/her coverage. Admin and hr can display their personal information and all employees’ information.
* Edit : a user with employee role can edit his/her specific personal information. Manager can only edit employees’ personal information that is under his/her coverage except user role type. Hr can edit all employees’ information except user role type. Admin can edit all information related to all employees’ including their user role type.
* Search : user with manager role type can search the content of database for the employees who are under his/her coverage. Hr and admin roles can search all the employees’ information in the database. Search feature works on specific keywords showing employees’ characteristics, peculiarities, skills, features, etc.
* Report: this feature is basically used to filter the contents of the search mechanism. For instance, as we mentioned in the above search feature. The hr wants to get a report of some specific employees who know “php”. The list of employees obtained from the result of search feature he/she can get the specific report by selecting the corresponding checkbox available for each employee. Or a manager role type can get a report of some or all employees’ who are working under his/her coverage by selecting the checkbox. Except employee role type, all other role types such as admin, hr, and manager can use this feature.
* Update authentication: this feature can be used only by admin role type. Admin can update the role type of a specific user. For example, an employee got promotion and his role type will be changed from employee role to manager role. Admin will be able to update this authentication mechanism.

**Recruitment**

* Add a new vacation: employee is able to add a new vacation to the database. The employee will have all the required personal information related to his/her and his/her vacations data. The new created vacation will have an id.
* Add a new training: after being created employees by hr role, HR role is responsible for creating a new training by the specified id assigned in employee feature. The unique id will be given by the system. HR will assign an employee to the new created training.

**Database Design**

This section describes the eight tables that are linked to our project. These eight tables are described in the following point

* User.
* Employee.
* Training
* Vacation.
* Attendance.
* Salary.
* Department.

1 Admin The admin table stores the information about human resources manager profile. All the human resources managers who will manage the system will be saved in this table.

Table 1 Admin

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Length | Key |
| Admin\_id | Int | 11 | Primary key |
| Admin\_name | Varchar | 150 |  |
| Admin\_email | Varchar | 100 |  |
| Admin\_password | Varchar | 50 |  |

2 Employee the table employee stores the information about employee profile. The entire employees who are added by the manager in the system will be saved in this table.

Table 2 Employee

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Length | Key |
| Employee\_id | Int | 11 | Primary key |
| Employee\_Name | Varchar | 50 |  |
| Employee\_paasword | Varchar | 20 |  |
| Employee\_address | Varchar | 50 |  |
| Employee\_mobile | Varchar | 11 |  |

3 Departments The table department stores all departments requested through the system will issue. All of these department data will be in this table.

Table 3 Departments

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Length | Key |
| Employee\_id | Int | 11 | Primary key |
| Employee\_Name | Varchar | 50 |  |

4 Trainings

The table training stores all trainings which are added by the manager. All of these trainings data will be in this table.

Table 4 Trainings

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Length | Key |
| Training\_id | Int | 11 | Primary key |
| Training\_title | Varchar | 20 |  |
| Training\_description | Text |  |  |

5 Vacation The table vacation stores all vacations which are added by employees through the system. All of these vacations data will be in this table.

Table 5 Vacation

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Length | Key |
| Vacation\_id | Int | 11 | Primary key |
| Vacation\_title | Varchar | 50 |  |
| Vacation\_from\_date | Date |  |  |
| Vacation\_to\_date | Date |  |  |
| Employee\_id | Int | 11 | Foreign key |

6 Salary

The table salary stores all salary data belong to employee through the system added by manager. All of these salary data data will be in this table.

Table 6 Salary

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Length | Key |
| id | Int | 11 | Primary key |
| Salary | Double | 5,2 |  |
| Bonus | Double | 5,2 |  |
| Loan | Double | 5,2 |  |
| Last\_update | Date |  |  |
| Employee\_id |  | 11 | Foreign key |

7 Attendance

The table attendance stores all attendance data belong to employee through the system added by him. All of these attendance data will be in this table.

Table 7 Attendance

|  |  |  |  |
| --- | --- | --- | --- |
| Field Name | Data Type | Length | Key |
| id | Int | 11 | Primary key |
| Att\_type | Varchar | 15 |  |
| Att\_time\_date | Date |  |  |
| Employee\_id | Int | 11 | Foreign key |

8 Evaluation

The table evaluation stores all evaluations data belong to employee through the system added by HR manager. All of these evaluations data will be in this table.

Table 8 Evaluation

|  |  |  |
| --- | --- | --- |
| Data type | Length | Key |
| Int | 11 | Primary key |
| Int | 11 | Foreign Key |
| Double | 5,2 |  |
| Text |  |  |

**Features of Human Resource Database Management System:**

Login page

The admin, manager and employee can access the system by filling the login form with correct authentication data then click login. They will enter to the Home page dashboard

Home page of the dashboard

The dashboard consist of two parts left part is the menu and the right has two parts. The upper part is statistical results and the upper quick communication via email.

Profile page

When user enter this page can edit his personal information, his photo, his skills and education.

Change password page

The admin, manager and employee can change their password by filling the correct old password and confirmed new password

Add new department

The admin and manager can add new department to the system.

Department list page

The admin and manager can view the all departments that inserted to the system. They can also edit or delete them.

New Employee page

The admin and manager can insert a new employee to the system by filling all the form, but this employee is rolled to the system as an employee.

Employee list page

The admin and HR manager can view all employees with their roles, job title and department title. This table have a form to ease the search. By this operations can HR manager view employee data, add salary, enroll training, edit data, edit role and delete

View user data window

The admin and HR manager can view all data of any employee on the system.

Edit employee role window

The admin and HR manager can edit the role of the employee Role types:

1. Administrator.
2. HR manager
3. Department manager

Employee

Add new vacation window: The admin, HR manager, department manager and employee can add new vacation by filling the reason and the date range. The new vacation still with waiting status until admin or HR manager accept or denied it

Vacation list page

The admin and HR manager can view all types of vacations. The admin and HR manager can change the type of it or delete the unction.

Accepted vacation list page

The admin and HR manager can view all accepted vacations

Denied vacation list page

The admin and HR manager can view all denied vacations

Waiting vacation list page

The admin and HR manager can view all waiting vacations

Evaluation list page

The admin and HR manager can view all evaluation percentage of the employees.

Add evaluation

The admin and HR manager can add, remove and edit the evaluation data of the employee at the end of employment year

Training list page

The admin and HR manager can view all training that inserted to the system and they can delete records.

Add new training page

The admin and HR manager can add new training that needed to the organization.

Add user to training window

The admin and HR manager can add employee or manages to existing training.

Attendance list page

The admin and HR manager can view all attendance days in month by ignoring days of vacations from the attendance.

Add salary to employee

The admin and HR manager can add monthly salary to employee

Salary list

(24) The admin and HR manager can view monthly salary of employee for a year

(a) Add new employee

(b) Add new training

(c) Enroll the new employee to the training

(d) Adding new vacation for the new employee