ESTABLISHING AN ONLINE HUMAN RESOURCE MANAGEMENT SYSTEM FOR ICBA COLLEGE LAYYAH AFFILIATED WITH NCBA&E, LAHORE

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***ABSTRACT**-This research work is considered to develop a Human Resource Management module for the Intranet Automation of an HR Software. It merges HRM as a discipline and in particular, it's basic HR activities and processes with the information technology field. The linkage of its financial and human resource modules through one database is the most important distinction to the individual and proprietary developed predecessors, which makes this software application both useful and flexible. This project mainly aims to maintain the database of the employees working in an organization their salary, payrolls with a facility to edit and update it. The HRMS projects facilitate user as per their hierarchy and grants privilege to them accordingly. The complete scheme is designed using HTML, CSS, and JavaScript on the user interface side and PHP with My SQL on the backhand side. The HR Software enables the end-users, as well as the college organization, come out with an easy to handle the application of the Human Resource Management.*
Keywords: Human Resource Management System, HTML, My SQL, PHP, JavaScript, JEL Classification: M12, J21, J31, J53

1.HRM SYSTEM LAYOUT

A Human Resource Management System (HRMS) refers to the systems and processes at the interaction between human resource management (HRM) and information technology (IT). It merges HRM as a discipline and in particular, it's basic HR activities and processes with the information technology field.The linkage of its financial and human resource modules through one database is the most important distinction to the individual and proprietary developed predecessors, which makes this software application both rigid and flexible. This project mainly aims to maintain the database of the employees working in an organization their salary, payrolls with a facility to edit and update it. The required modules have been developed on user interface by using HTML, CSS, PHP while the server side programming is done completely using PHP and My SQL is used as a database.

The main aim of this work was to develop a Human Resource Module for the Automation of HR Software in which all the information regarding the employees in the college are presented. This has to be developed with good Interaction/ communication facilities between the employees and HR Administrator in such a manner that a level of hierarchy was maintained between the various employees.

HR Admin page is created with HR Admin tasks. HR Administrator is provided with the facility of Adding Employee into the company. It adds the new employee's General details and can also enter their Contact, Skill, Education, Certification, and Project Details. It also has the facility of Viewing / Updating all Employees General, Contact, Educational and other details.

The HRM System is a complete web application designed on PHP technology. The user interface is designed using HTML, CSS, PHP while the server side programming is done completely using PHP and My SQL is used as a database. Each employee had an Employee ID and password through which he can log in. Depending on the type of employee, either as user or admin, the employee is logged in or accordingly various privileges are granted to him to carry out various tasks through the application. The application makes sure of the security services and other privacy policies. Its grants privilege to various employees to perform their work as per hierarchy in the organization.

The whole HRM system is web-based and designed using WAMP server, a window-based platform for PHP web application development. The HRM system is confined to be run on any web server either on internet or intranet. The application makes sure that the proper user interface is provided to the communicating parties to work easily on the application.

The software has been developed keeping in the view the current requirement of Human Resource Management. The web pages about an employee are created dynamically based on the user ID and password and links are provided to web pages containing information about Employee General Profile, Salary Details, Payroll and other static links to various other pages. An information hierarchy is maintained i.e. the information regarding a particular employee is accessed by the same or any person above him in the information hierarchy. There was also a provision for updation the details.

2. MODULE DESCRIPTION

The HR software module has been distributed into three parts, as described below:

2.1 Login and Registration Module

This module enables the employee to log in and access the details. It also enables admin to register any employee and update employee's general information along with contact, qualification and other details. The employee registration can be done only by the admin type of user having this privilege.

2.2 Delete, View and Update Employee Information Module

This module has control over the system and able to manage the human resource by adding, viewing and updating employee information. This module is based on hierarchy and employees can see their profile and profiles of another employee who are in the lower hierarchy.

2.3 Employee Salary and Payroll Module
This module deals with employee salary. Any employee can see his salary details. The employee having an admin type of privilege can see his own salary as well as the payroll of the other employees.

3. SCOPE OF THE HRM SYSTEM
The Human Resource Management Systems encompass: Payroll, Work Time, Appraisal Performance, Benefits Administration, HR Management Information system, Recruiting, Training/Learning Management System, Performance Record, Employee Self-Service.

The HR management records basic demographic and address data, selection, training and development, capabilities and skills management, compensation planning records and other related activities. Human resource management function involves the recruitment, placement, evaluation, compensation, and development of the employees of an organization.

4. HARDWARE AND SOFTWARE ACCESSORIES
4.1 Hardware Requirements: These includes Intel corei7, Processor 2.4 GHZ, RAM 8 GB, and Hard Drive 500 GB
4.2 Software Requirements: The system should be equipped with Operating system, Win 8, Database, SQL Server, Web Browser, Firefox, Internet Explorer (8,9), Opera, Google Chrome, HTML5 with Css3 and Php5
The designing of the project requires an HTML editor (Macromedia Dreamweaver). A web server to host the application. WAMP was used which has a complete package including PHP scripting, Apache server and My SQL for the database. The client machine using the application requires a web browser to access and run the application.

5. DESIGNING THE HRM SYSTEM
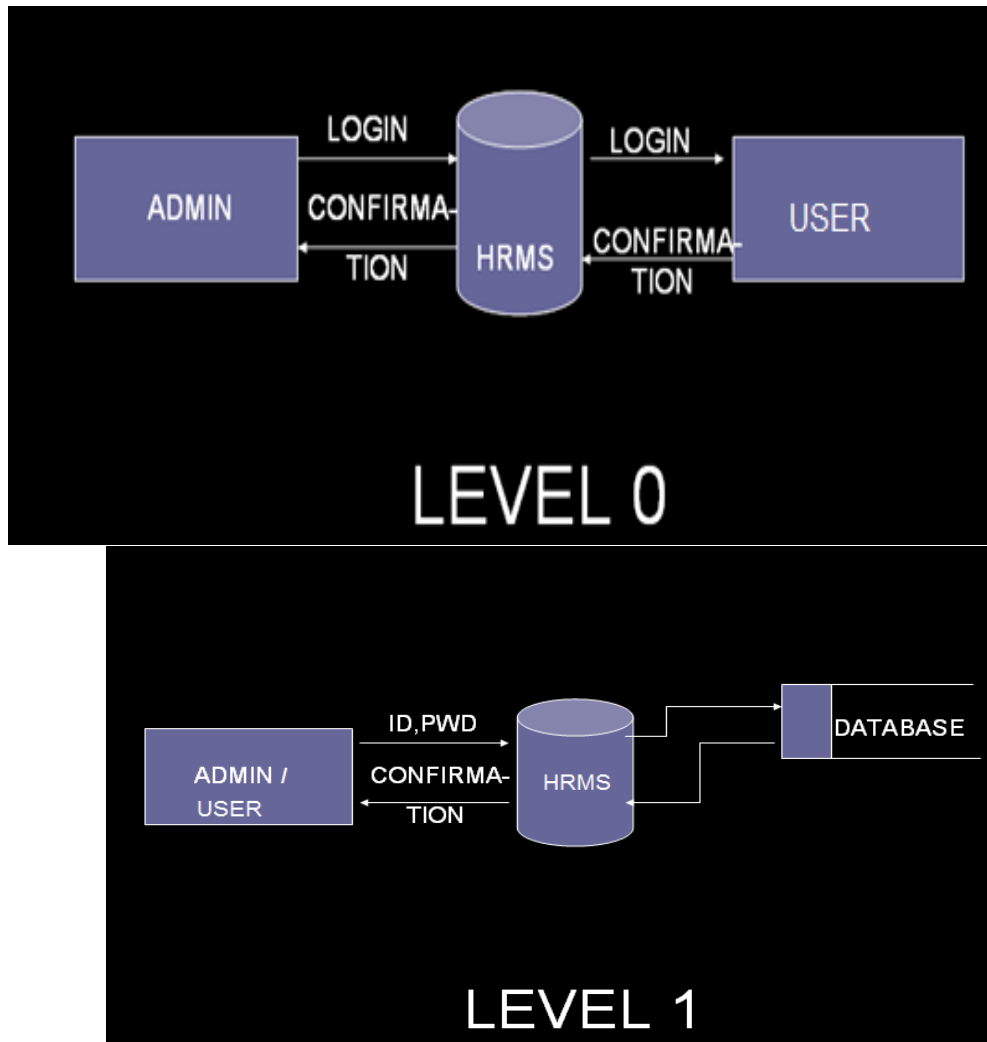
Fig.1: Data Flow Diagrams (DFD), level 0, level 1, level 2.

Fig.2: Entity Relationship Diagram (ER)
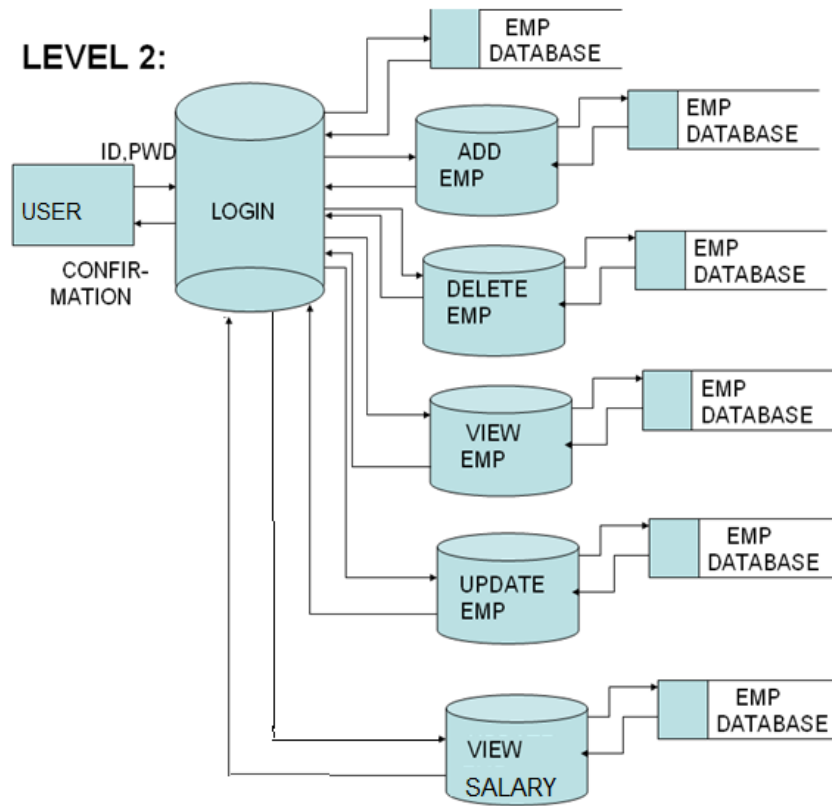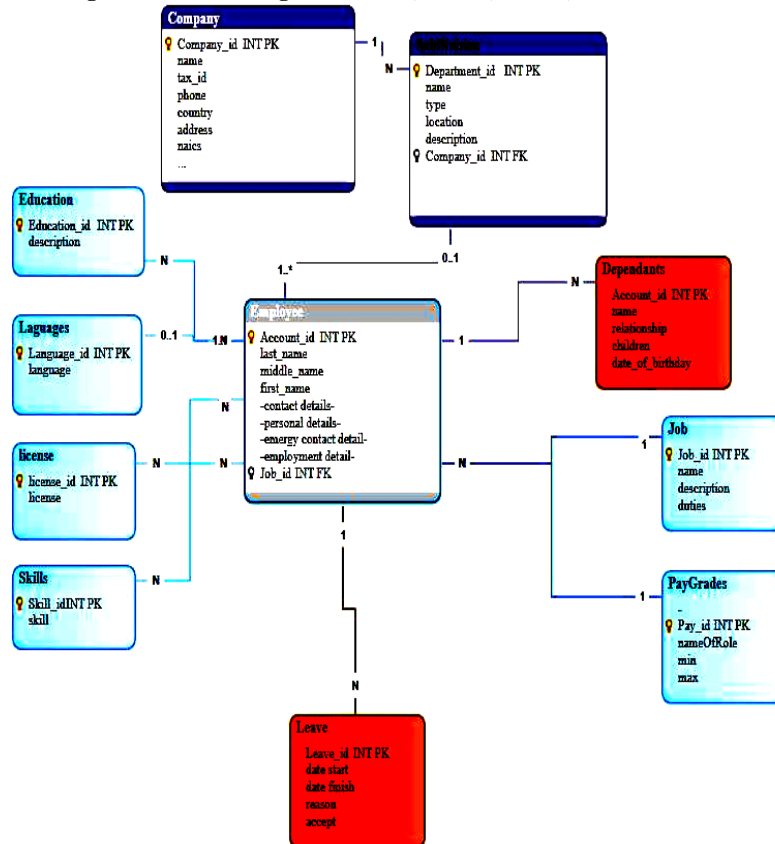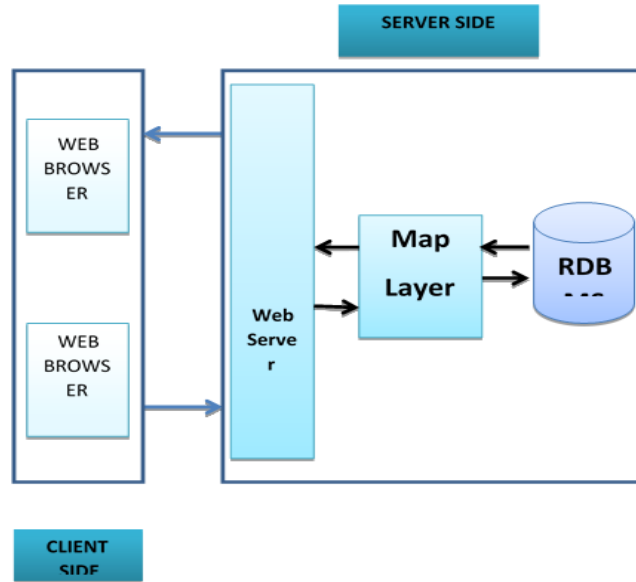
November-December

Fig.3: Architecture design diagram

6. PHYSICAL/INTERFACE DESIGN
Login Panel for Site Admin

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┌─────────────────────────────────────────────┐
│            Starting the project:             │
│                                              │
│  1. Drafting and signing a contract between  │
│  the two parties – the company, represented  │
│  by the top level management, and the        │
│  external consultants.                       │
│  2. Prepare a "plan-schedule" for the work   │
│  of the team.                                │
└─────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────┐
│  Analysis of the current state of the human  │
│                  resources:                  │
│                                              │
│  1. Category structure.                      │
│  2. Educational structure.                   │
│  3. Age structure.                           │
│  4. Structure based on employment history.   │
│  5. Sex structure.                           │
└─────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────┐
│        Defining the aims and goals of the    │
│        human resources management system     │
└─────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────┐
│        Review of employee's job descriptions │
└─────────────────────────────────────────────┘
                      │
                      ▼
          Identifying the key components of the
                        system
                      │
                      ▼
         Development of system components as
              company normative regulation
                      │
                      ▼
┌─────────────────────────────────────────────┐
│  Development of Instruction on regulations   │
│             implementation                   │
└─────────────────────────────────────────────┘
                      │
                      ▼
┌─────────────────────────────────────────────┐
│             Project completion:              │
│                                              │
│  Specific training about the rules of the    │
│  system for the top management, sector       │
│  managers and all team managers in the       │
│  company                                     │
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7. ADDING EMPLOYEE'S PERSONAL DETAILS

ESS-User cannot make changes to the following details and these are restricted fields to be used by the HR Admin and the respective ESS-Supervisor: Employee ID, SSN No, SIN No, Driver License No, Date of Birth.

Adding Photograph

The ESS-User can add a photograph of himself/herself by clicking on the photograph at the corner of the screen.

Adding Contact Details

Contact information can be entered from here. Click on "Contact Details" under the Employee Details column and the screen.

Adding Emergency Contact

Contact details which will be needed during an emergency can be entered here. Select "Emergency Contacts" on the "Personal" column on the screen.

Adding Job Details
The ESS-User cannot make changes in the job details, he/ she can view job details that have been pre-defined by the administrator: The job details are job title, job specification, employment status, job category, joined date and attachments.

Adding Salary Details
The salary information field is completely hidden from the ESS-User as shown in Figure. Only the HR Admin has access to this information and has to be manually communicated to the ESS-User.

Qualifications: Adding the highest educational qualification of employees.

Work Experience
The previous work experiences of employees can be entered here. To enter previous work experiences, click "Add" under "Work Experience".

Education
Employees/admin are able to enter details of your education here. To enter education details, click "Add" under "Education".

Skills
If you have any special talents or skills they can be entered here. To enter skills, click "Add" under "Skills".

Attachments
Any supporting documents regarding your qualification that you think is needed by the management can be attached here. Please note that each document cannot exceed 1 megabyte, but you can attach more than one document. To add an attachment, click "Add" under the attachment.
Click "Browse" and select the file from the relevant path and click "Upload" to upload it.

8. DATABASE
 Data Dictionary
My SQL was used as a database to achieve these objectives such as integrating all data, incorporate updation at ease and provide data security from unauthorized users.

Database Structures:
In order to access the database file, the field type codes are provided viz. C Character, N Numeric, T Date/Time, L Logical, Memo, I Integer, G General Note.

HRMS Database File List
Each database file has been qualified with name, description and alias. The files are listed alphabetically by file name.
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Deployment and Testing
 The Software has been deployed with XAMPP on Microsoft Vista. The software testing is managed by employing a breaking strategy, in order to overcome any issue, the system is broken into small pieces, and then to be constructed back.

CONCLUSION
This article on Human Resource Management System deals with the member addition process, edit, delete, search process for employee and salary details. By computerizing, the accuracy of the data recording has increased. This system provides precise enlistment of employee's information. Data can be retrieved as and when required. This system also provides online attendance and SMS features. Thus this project can be served in various small and medium companies with its multifaceted features.

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