

HRM Solution

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**This project has been submitted to the Department of the Computer Science
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Bachelor of Science in Computer Science and Engineering**

At the



**East West University
Dhaka, Bangladesh**

January, 2016

Declaration

The project has been submitted to the Department of the Computer Science & Engineering, East West University in the partial fulfillment of the requirement for the degree of Bachelor of Science in CSE performed by us under supervision of Associate Professor Dr. Md. Nawab Yousuf Ali, Dept of CSE at East West University. This is also needed to certify that, the project work under the course '**Project Work (CSE-499)**'. We, hereby, declare that this project has not been submitted elsewhere for the requirement of any degree or diploma or any other purposes.

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Letter of Acceptance

The Project entitled **HRM Solution** submitted By Md.Emtiaz Zaman, Id : 2010-3-60-001 and Tanjil Alam, Id : 2010-3-60-011 to the department of computer Science and Engineering, East West University, Dhaka Bangladesh is accepted as satisfactory for the partial fulfillment of the of the requirement for the degree of Bachelor of Science in Computer Science and Engineering on January 14, 2016.

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Abstract

Human Resource Management is a process of managing human resources in a organization to maximize employee performance in service of an employer's strategic objectives. An organization cannot manage a good team of working professionals without a good HRM solution. The world of work is rapidly changing. So, as a part of organization, Human Resource Management (HRM) must be prepared to deal with effects of changing world of work. Any organization, without a proper setup for HRM is bound to suffer from serious problems while managing its regular activities. For this reason, today, companies must put a lot of effort and energy into setting up a strong and effective HRM. In this project, we develop requirement analysis and design of a HRM software solution. We have to develop this solution for a company. We believe this HRM solution will definitely be useful for the company to manage and maintain human resource smoothly. We have analyzed the included necessary functions in our system as well as an effective user friendly interface for our system.

Acknowledgements

It has been great pleasure for us to develop HRM software solution. We have gathered sufficient knowledge and experience during this project.

We would like to thank our honorable teacher and supervisor of this project, Dr. Md. Nawab Yousuf Ali Associate Professor, Department of Computer Science and Engineering, East West University who guided us to proper analysis of the system and helped to develop an elegant and efficient system.

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Chapter 1

Introduction

The Human Resource Management (HRM) solution is a software solution which assists a company to manage its employees. It helps a company various essential tasks such as recruitment of people, their management of attendance, leave, performance, payroll and providing direction for those who work in the organization. This solution is also easy to use for the company's employee to do various tasks such as giving attendance, apply for leave, viewing payroll etc. The main aim of this solution is to improve the process efficiency, reduction of the cost and time spent on human resource related mundane tasks and at the same time improved the overall experience of the employees and the HR professionals.

1.1 Motivation:

For our project we consider the HRM solution as our target object. In our country there are many companies, to increase their productivity they must manage their work force which are the employees, so easy to manage efficient HRM solution is highly necessary. Moreover, if these companies do not use a good easy to manage HRM solution. Then following thing occur in a company.

- A company cannot manage their employees efficiently.
- A company's productivity decreases.
- Basic human resources related activities such employee attendance, recruitment, leave, payroll etc processes cannot be manageable properly by the company.
- An employee may not able to do his basic activity efficiently.

1.2 Purpose of the Project

The HRM solution can considerably speed up and make efficient a company's existing recruitment, attendance, payroll management, leave management etc processes which are not efficient and lengthy as well as time consuming. The HRM solution is user friendly so that company admin can easily access the system and collect and set the required information. Not only the admin but also the employees can easily access their own related information. So, the main purpose of this solution will be an efficient human resource management for a company so that a company can significantly save its time in management and increase its productivity.

1.3 Objective

In a HRM solution an office main admin can manage his offices total human resource which are the employees and setup all of the official policies for the employee. In this solution any employee can login and do his necessary activities such as attendance, apply for leave etc and these activities can be monitored by the main admin.

1.4 Scope

This solution provides all of the necessary modules for the company's HR management. It also provides the three types of users with all the necessary privileges to access and modify the data intended for them. Following are the scopes of the developed solution that are elaborately discussed:

➤ **For super admin:**

- **Basic Setup:** In this module the super admin can access all the basic setup processes such as company basic information , branch information , holiday etc so that he can setup all the necessary basic information of the company. Under basic setup the available processes are displayed.
- **Recruitment:** In this module the super admin can access all the recruitment processes related to employee register, type and detail. Under recruitment the available processes are displayed.
- **Attendance:** In this module the super admin can access all the attendance processes such as employee attendance, Attendance View. Under attendance the available processes are displayed.
- **Leave process:** In this module the super admin can access all the leave processes such as leave policy, leave allow, leave approval etc. Under leave process the available processes are displayed.
- **Performance management:** In this module the super admin can access all the performance management processes such as employee performance, performance report. Under performance management the available processes are displayed.

- **Payroll management:** In this module the super admin can access all the payroll management processes such as payroll structure, payroll report. Under payroll management the available processes are displayed.

➤ **For Department admin:**

- **Attendance:** In this module the department admin can access certain attendance processes under his department such as employee attendance, Attendance View. Under attendance the available processes are displayed.
- **Leave process:** In this module the department admin can access certain leave processes under his department such as leave application, leave approval. Under leave process the available processes are displayed.
- **Performance management:** In this module the admin can access certain performance management processes under his department such as employee performance, performance report. Under performance management the available processes are displayed.
- **Employee Payroll:** In this module the department admin can access certain employee payroll processes under his department which is employee payroll ., employee payroll the available processes are displayed.

➤ **For employee :**

- **Attendance:** In this module the employee can access certain attendance process which is employee attendance. Under attendance the available process is displayed.
- **Leave process:** In this module the employee can access certain leave process which is leave application. Under leave process the available process is displayed.
- **Payroll management:** In this module the employee can access certain payroll management process which is employee payroll.
- **Performance management:** In this module the employee can access certain performance management process which is employee performance.

Chapter 2

Existing System

There are many existing HRM systems are currently being used by various companies. There are many common features as well as unique features in those systems. And they varies according to the companies need. But by studying those systems ,we can understand overall existing features.

2.1 Existing Feature:

The features of the existing systems are listed below:

- View and edit the company information from the company information page for admin..
- View and edit the company branch, department, designation from the company branch department and designation page for admin..
- View and edit the employee profile, including branch , department, designation, type ,detail from employee registration and employee detail page for admin..
- View the employee attendance in employee attendance view.
- Manage and edit the company leave policy at anytime from the company leave policy page for admin..
- Manage and edit the company payroll at anytime from the company payroll page for admin..
- Manage and edit the company performance management process anytime from the company performance management for admin..
- Employee can give his normal attendance and apply for leave any time.

Challenges of existing system :

There are some challenges of the existing system. Some are mentioned below:

- Display full details of a company profile in company information page for admin..
- Display company's branch , department , designation, type in their setup pages for admin.

- Display employee info in employee registration page for the selected branch and department for admin..
- Display a employees total attendance within specific dates for admin.
- Display a employees attendance location for outdoor attendance for admin.
- Display a employees performance for admin and employee.

2.2 Proposed System:

The proposed system will provide the following activates of the users:

Super Admin Activities:

- Super Admin can log in to the solution and get total administrative access of the solution.
- Super Admin can manage the company's basic setup process.
- Super Admin can manage the recruitment process.
- Super Admin can manage the attendance process.
- Super Admin can manage the leave process.
- Super Admin can manage the performance management process.
- Super Admin can manage the payroll management process.

Department Admin Activities:

- Department Admin can log in to the solution and get limited administrative access of the solution.
- Department Admin can manage his available attendance process.
- Department Admin can manage his available leave process.
- Department Admin can manage his available performance management process.
- Department Admin can manage his available payroll management process.
- Department Admin can also give **outdoor attendance** using a web service.
- Department Admin can see outdoor attendance location for employee outdoor attendance.

Employee Activities:

- Employee can log in to the solution and get employee related limited access of the solution.
- Employee can give normal attendance
- Employee can also give **outdoor attendance** using a web service.
- Employee can apply for leave as well as see its status.
- Employee can see his payroll information.
- Employee can manage his available performance management process

Chapter 3

Requirement Analysis

Requirements analysis, also called requirements engineering, is the process of determining user expectations for a new or modified product. These features, called requirements, must be quantifiable, relevant and detailed. This HRM solution required the following requirements. This has mainly three users. Those are Super Admin, Department Admin and Employee. In a HRM solution HR of HRM department act as Super Admin, department head of a company act as department Admin and regular employee act as employee.

3.1.1 Data Requirement

During requirement analysis the following data have been identified for a HRM system:

- At first each person need to be registered by super admin including department admin. This is necessary for accessing the user's necessary modules to access information. They also have a user name and password. They can login to the system using their name and password.
- Super Admin and admin need to login to the system to operate the system. Super Admin and department admin has their individual or unique login user name and password. Through this use name and password they can login to the system.
- Department Admin can access only certain module and do HR activities such leave allow ,employee evaluation such performance report ,attendance view etc under his department.
- Super Admin can update all the information of the registered users including department admin. Super Admin can delete any user.
- Super Admin can update all of the companies HR related information's.
- An employee can give attendance.
- Employee can apply for application and see his application status.
- Employee can see his payroll information.
- Employee can see and evaluate his and everybody's performance information.

3.1.2 Process Requirement

The following process requirements are identified for HRM system:

- A valid login is required for all process to be performed. A valid login is required for every registered users and admin. All of them have a valid user name and password. System will authenticate their valid login.
- After valid login employee can his available pages.
- Super admin can login to the system and he can access the entire available module to access, update any necessary info.

3.2 Physical Design

The physical design relates to the actual input and output processes of the system. This is laid down in terms of how data is input into a system, how it is verified or authenticated, how it is processed, and how it is displayed as In Physical design; the following requirements about the system are decided.

- Input requirements
- Output requirements
- Storage requirements
- Processing Requirements

Put another way, the physical portion of systems design can generally be broken down into three subtasks-

- User Interface Design
- Data Design
- Process Design

3.3 Use Case Diagram

3.3.1 Use Case Diagram for Super Admin

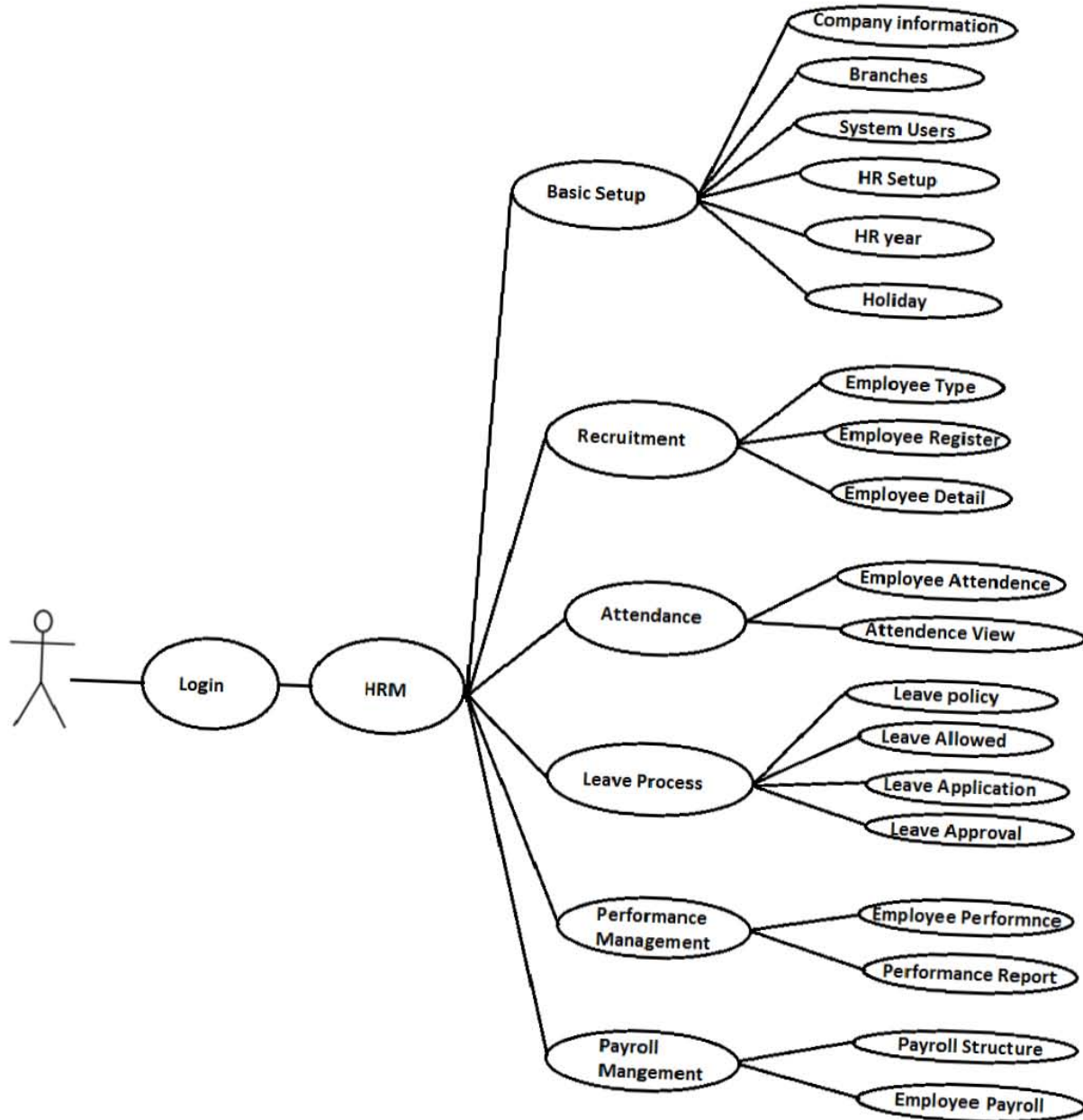


Figure 3.1 : Use case diagram for super admin

Description: This is the use case diagram of super admin. This diagram shows which works are done by the admin. It also shows the solutions all of the available processes for super admin and the internal relations of each processes. This diagram also shows the main processes and their underlying sub processes. The description of each processes are given below :

- **Login:** The super admin use the login to enter in the HRM solution to perform the administrative works.
- **HRM:** Admin just selects the HRM button then he is redirected to the main page which is the main interface of HRM. So that he can do all the administrative works of the HRM. To perform this action admin must need to login to the system.
- **Basic Setup:** In this sub-module the super admin can access all the basic setup processes pages so that he can setup all the necessary basic information of the company. Under basic setup the available pages are:
 - Company information:** In this page super admin fill out all of the basic information for the company.
 - Branches:** This page super admin can fill out all of the basic information for the company branch.
 - System Users:** In this page super admin can register a new user and give them a new user name and password.
 - HR Setup:** In this page super admin can create department and designation areas for the office.
 - HR Year:** In this page super admin can determine office working days and office hours.
 - Holiday:** In this page super admin chooses allowable holiday type, holiday duration, holidays in a year for the office.
- **Recruitment:** In this sub-module the super admin can access all the recruitment processes pages for the company and do all the recruitment related activities.
 - Employee Type:** In this page for an employee the super admin can select his type name such as permanent or provision.
 - Employee Register:** Here the super admin can register a new employee in his office by filling out basic information of employee.
 - Employee Detail:** In this page super admin can insert detail information for an employee.
- **Attendance:** In this sub-module the super admin can access all the attendance processes pages for the company and do all the recruitment related activities.
 - Employee Attendance:** In this page admin can give his attendance.
 - Attendance View:** In this page admin can show Attendance View

- **Leave Process:** In this sub-module the super admin can access all the leave processes pages for the company and do all the leave related activities.
 - Leave Policy:** In this page super admin determines the leave policy according to employee designation for the company.
 - Leave Allowed:** In this page super admin can save total leaves for employees so that all leaves are automatically goes to all employees of designations.
 - Leave Application:** In this page admin can apply for a leave by submitting leave application.
 - Leave Approval:** In this page super admin can approve leave applications under a department.
- **Performance Management:** In this sub-module the super admin can access all the leave processes pages for the company and do all the leave related activities.
 - Employee performance:** In this page super admin can evaluate an employee of a selected branch and department.
 - Performance report:** In this page performance report of an employee of a selected branch and department is shown.
- **Payroll Management:** In this sub-module the super admin can access all the payroll management processes pages for the company and do all the payroll related activities.
 - Payroll Structure:**

In this page super admin first does payroll item setup then under a payroll item the he sets total payroll structure.
 - Employee Payroll:** In this page super admin can see his payroll information as well as payroll information of any employee under any department of his company by selecting from company department name and employee name dropdown lists.

3.3.2 Use Case Diagram for Department Admin:

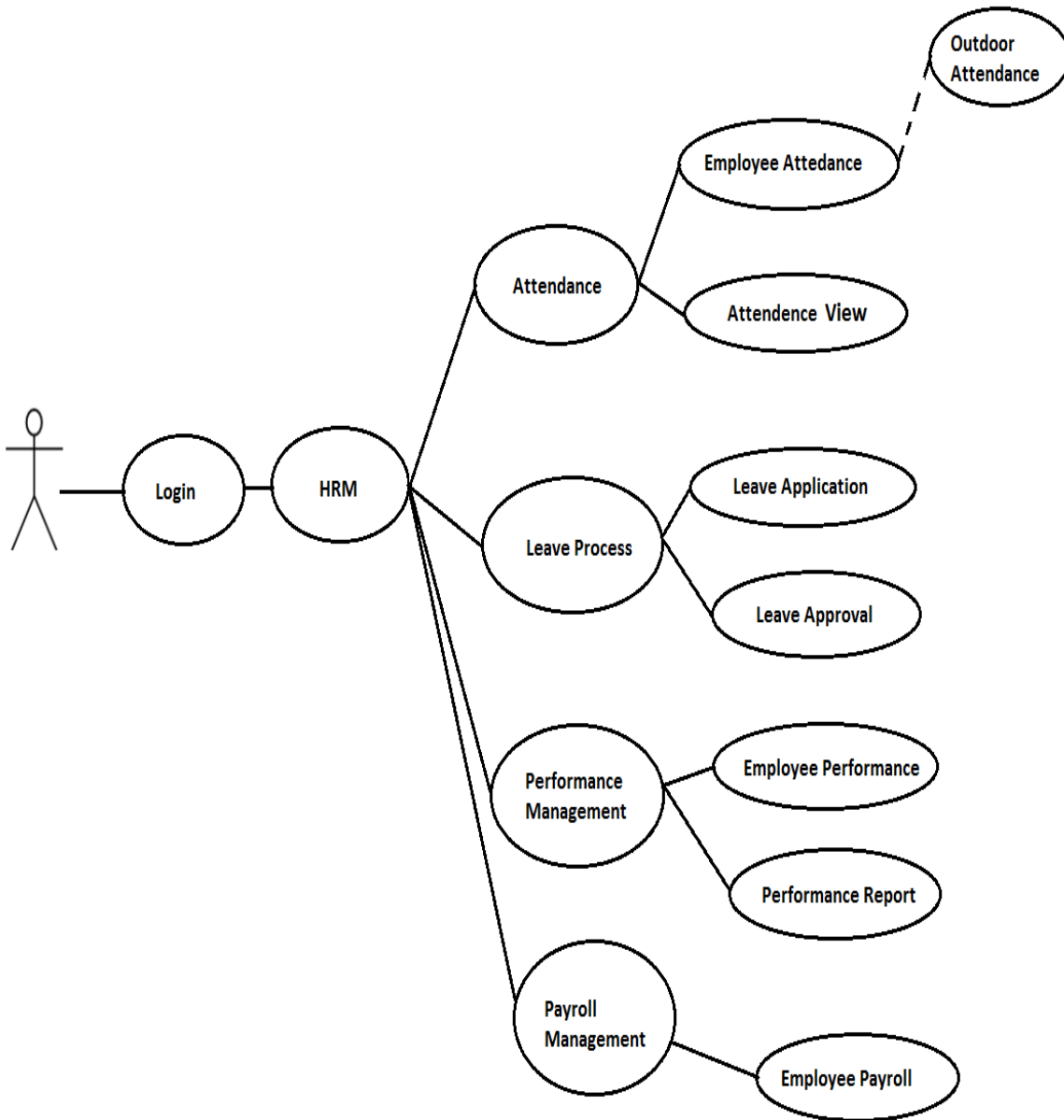


Fig 3.2 : use case diagram for department admin

Description: This is the use case diagram of department admin. This diagram shows which works are done by the department admin. It also shows the solutions all of the available processes for department admin and the internal relations of each processes. This diagram also shows the main processes and their underlying sub processes. The description of each processes are given below :

- **Login:** The department admin use the login to enter in the HRM solution to perform the department administrative works.
- **HRM:** Department admin just selects the HRM button then he is redirected to the main page which is the main interface of HRM. So that he can do all the administrative works of the HRM for his department. To perform this action department admin need to login to the system.
- **Attendance:** In this sub-module the department admin can access all the attendance processes pages for his department and do all the attendance related activities.
 - Employee Attendance:** In this page department admin can give his normal attendance .He can also give his outdoor attendance using a web service.
 - Attendance View:** In this page admin can show Attendance View
- **Leave Process:** In this sub-module the department admin can access all the leave processes pages for his department and do all the leave related activities.
 - Leave Application:** In this page department admin can apply for a leave by submitting leave application.
 - Leave Approval:** In this page department admin can approve leave applications under a department.
- **Performance Management:** In this sub-module the department admin can access all the leave processes pages for his department and do all the leave related activities.
 - Employee performance:** In this page super admin can evaluate an employee of a selected branch and department.
 - Performance report:**
 - In this page performance report of an employee of a selected branch and department is shown.
- **Payroll Management:** In this sub-module the department admin can access all the payroll processes pages for his department and do all the leave related activities.
 - Employee payroll:** In this page employee can see his payroll information.

3.3.3 Use Case Diagram for Employee

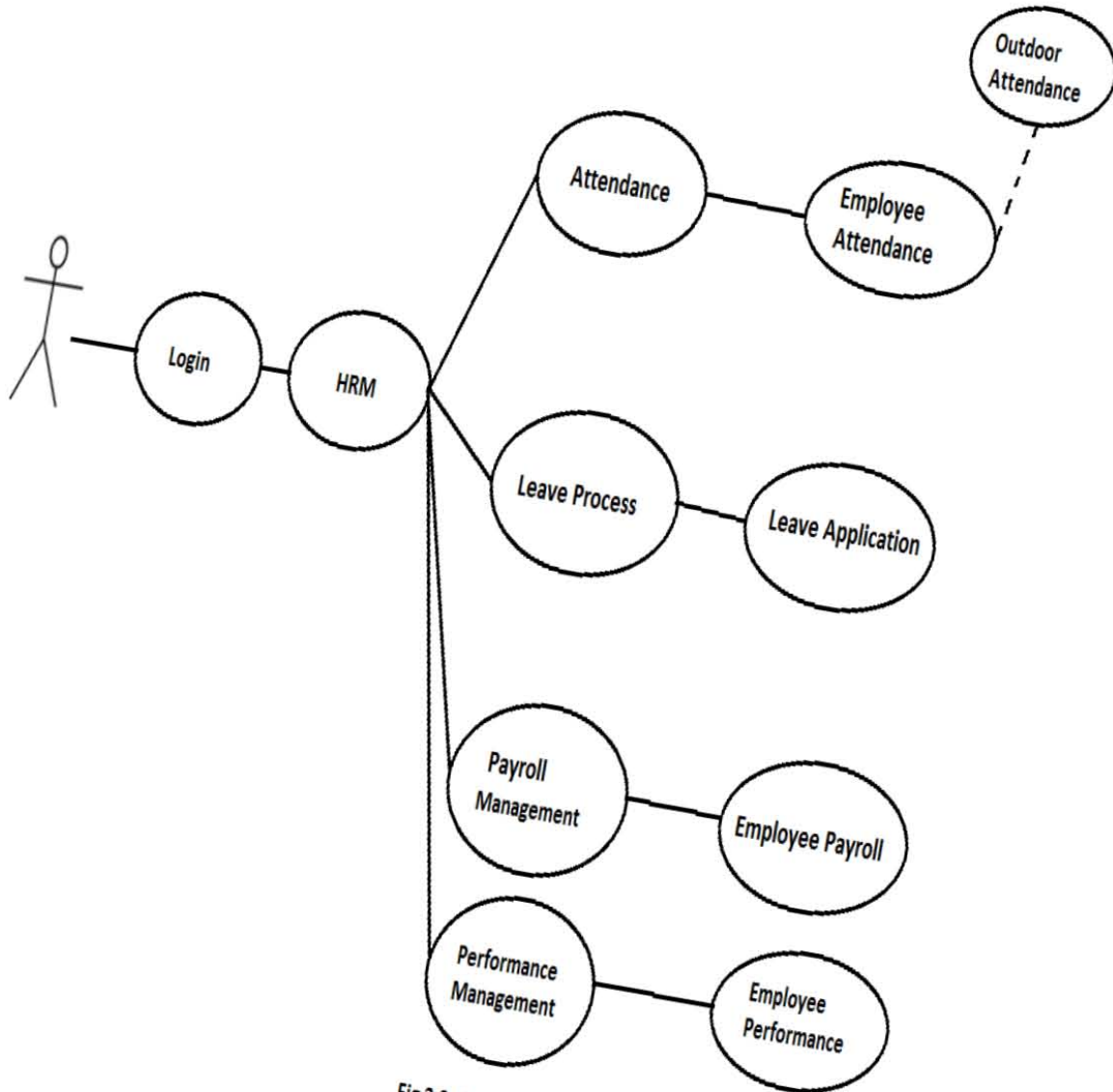


Fig 3.3 : Employee use case diagram

Description: This is the use case diagram of employee. This diagram shows which works are done by the employee. It also shows the solutions all of the available processes for employee and the internal relations of each processes. This diagram also shows the main processes and their underlying sub processes. The description of each processes are given below :

- **Login:** The employee uses the login to enter in the HRM solution to perform the employee related works.
- **HRM:** An employee just selects the HRM button then he is redirected to the main page which is the main interface of HRM. So that he can do all the employee related works of the HRM. To perform this action admin must need to login to the system.
- **Attendance:** In this sub-module the employee can access all the attendance processes pages for the company and do all the attendance related activities.
Employee Attendance: In this page an employee can give his attendance. The employee can also give outdoor attendance and this attendance is automatically collected in with his current location by a web service.
- **Leave Process:** In this sub-module the employee can access all the employee related leave processes pages and do all the leave related activities.
Leave Application: In this page employee can apply for a leave by submitting leave application.
- **Payroll Management:** In this sub-module the employee can access all the payroll management processes pages for the employee and do all the payroll related activities.
Employee Payroll: In this page an employee can see his payroll structure.
- **Performance Management:** In this sub-module the employee can access all the leave processes pages for his department and do all the leave related activities.
Employee performance: In this page super admin can evaluate an employee of a selected branch and department.

3.4 Software requirements

For installing the solution, we mainly required the following software, installed on the hosting system.

3.4.1 Web Server

- Windows Server
(Windows Server® 2012 using the IIS Manager UI.)

3.4.2 Database Language:

- Oracle
(Oracle 11g)

3.4.3 Server Side Language

- C#

3.5 Software Implementation

To implement this solution we use both open source and commercial tools. For designing this project HTML, CSS, JAVASCRIPT, JQUERY, JQUEY EASY UI are used which are open source. ASP.net development server of visual studio is used as web server. C# is used for database coding. Oracle is used as database server.

3.5.1 HTML

HTML is short form of Hyper Text Markup Language and it is a language that are used to create electronic documents, especially pages on the World Wide Web that contain connections called hyperlinks to other pages. Every web page you see on the Internet, including this one contains HTML code that helps format and show text and images in an easy to read format. Without HTML a browser would not know how to format a page and would only display plain text with no formatting that contained no links. [1]

3.5.2 JQUERY

jQuery is a cross-platform JavaScript library designed to simplify the client-side scripting of HTML. jQuery is the most popular JavaScript library in use today, with installation on 65% of the top 10 million highest-trafficked sites on the Web. jQuery is free, open-source software licensed under the MIT License

3.5.3 JQUEY EASY UI

Easyui is a collection of user-interface plug-in based on jQuery. Easyui provides essential functionality for building modern, interactive, javascript applications. Using easyui anyone don't need to write many javascript code, developers usually define user-interface by writing some HTML markups .complete framework for HTML5 web page. Easyui saves time and scales while developing products. Easyui is very easy but powerful. [2]

3.5.4 C sharp (C#)

C# (pronounced as *see sharp*) is a multi-paradigm programming language encompassing strong typing, imperative, declarative, functional, generic, object-oriented (class-based), and component-oriented programming disciplines. It was developed by Microsoft within its .NET initiative and later approved as a standard by (ECMA-334) and ISO (ISO/IEC 23270:2006). C# is one of the programming languages designed for the Common Language Infrastructure # is intended to be a simple, modern, general-purpose, object-oriented programming language [3]

3.5.5 ASP.NET Framework

ASP.NET is an open-source server-side web application framework designed for web development to produce dynamic web pages. It was developed by Microsoft to allow programmers to build dynamic web sites, web applications and web services.

3.5.6 ASP.net development server (Windows server with IIS)

Windows Server is a brand name for a group of server operating systems released by Microsoft. It includes all Windows operating systems branded "Windows Server", but not any other Microsoft product. The first Windows server edition to be released under that brand was

Windows Server 2003. However, the first server edition of Windows was Windows NT 3.1 Advanced Server, followed by Windows NT 3.5 Server, Windows NT 4.0 Server, and Windows 2000 Server; the latter was the first server edition to include Active Directory, DNS Server, DHCP Server, Group Policy, as well as many other popular features used today.

Internet Information Services (IIS, formerly Internet Information Server) is an extensible web server created by Microsoft for use with Windows NT family. IIS supports HTTP, HTTPS, FTP, FTPS, SMTP and NNTP.

3.5.7 IDE (MS Visual Studio 2010)

Microsoft Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs for Microsoft Windows, as well as web sites, web applications and web services. Visual Studio uses Microsoft software development platforms such as Windows API, Windows Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight. It can produce both native code and managed code.

3.5.8 Toad for oracle

Toad™ for Oracle® is the number one productivity solution for Oracle® database development and administration. These Oracle DB tools combine extensive automation with intuitive workflows to provide you with deep functionality. Toad for Oracle seamlessly integrates with the Toad World™ user community, empowering you to get answers from industry experts, interact with 3 million of your peers, and access a wealth of platform information—all without leaving Toad. Whether you're a novice or a database pro, these Oracle tools will allow you to work and collaborate with accuracy and ease. [4]

3.6 Database Implementation

After getting the requirement of a logical design and physical design of our database, we can move to the implementation stage. In general, implementing our physical design involves defining the various objects and enforcing the constraints on the data relationships.

In this solution the following database tables are used for storing various information's of the each page of this HRM solution. In each page of this solution there might be more than one tables are used for storing information. Here , all of the available database tables and their descriptions are given below:

3.6.1 Database table of company Information

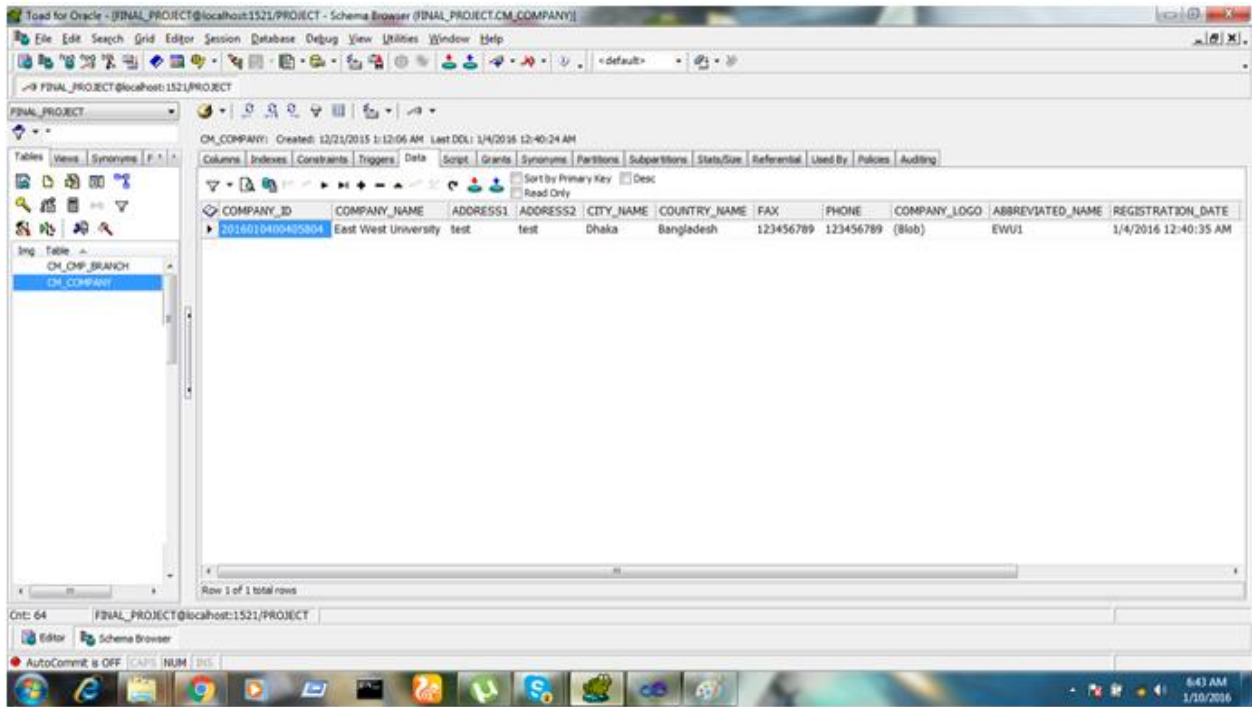


Figure: 3.6.1 Databases table for company Information

Description: This is the database table for company information in this table company id , name , address , phone etc company related information are stored in each columns according to row.

3.6.2 Database table of branch

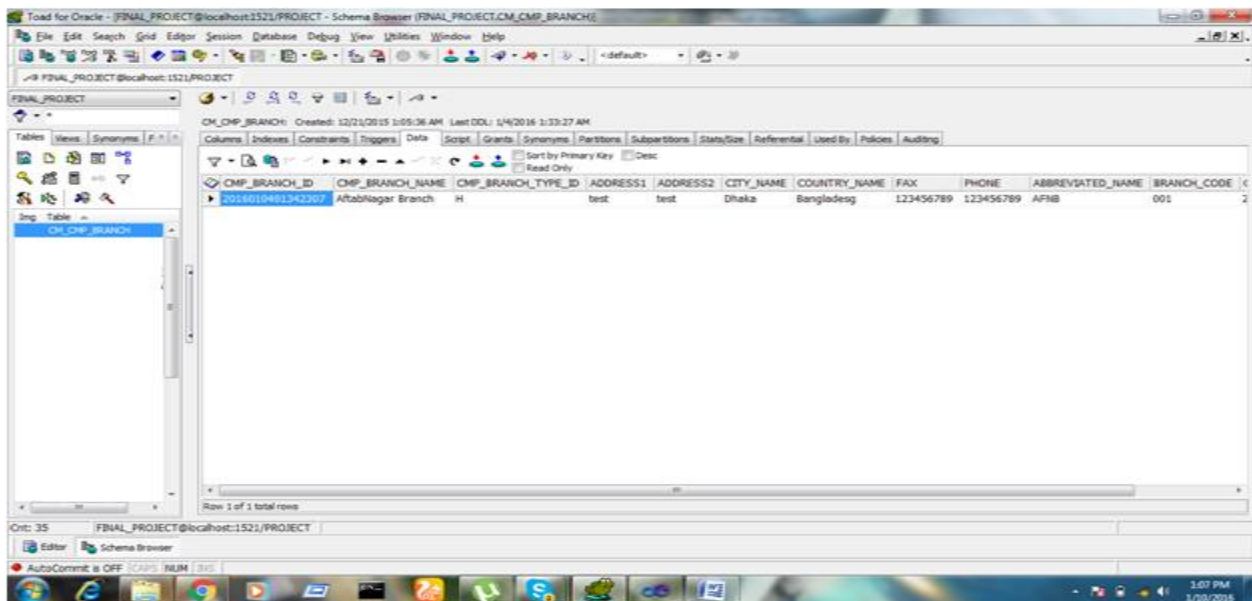


Figure: 3.6.2 Databases for company branch

Description: This is the database table for company branch in this table company branch id , name , address , phone etc company branch related information are stored in each columns according to row.

3.6.3 Database table of system users

The screenshot shows the Toad for Oracle interface displaying the CH_SYSTEM_USERS table. The table has the following columns: SYS_USR_ID, SYS_USR_DNAME, SYS_USR_LOGIN_NAME, SYS_USR_PASS, SYS_USR_EMAIL, CMP_BRANCH_ID, and USER_TYPE. The data is as follows:

SYS_USR_ID	SYS_USR_DNAME	SYS_USR_LOGIN_NAME	SYS_USR_PASS	SYS_USR_EMAIL	CMP_BRANCH_ID	USER_TYPE
2016010401450308	admin	admin	admin123		2016010401342307	S
2016010900423003	Emu	emu	emu123	finalproject@ewu.com	2016010401342307	A
2016010402186909	Tanjil Alam	tanjil	tanjil123		2016010401342307	A
2016010816075283	Rony	rony	rony	finalproject@ewu.com	2016010401342307	G

Figure: 3.6.3 Databases table for system users

Description: This is the database table for system users in this table system users id , name , login name , password ,email ,user type etc system users information are stored in each columns of table according to row.

3.6.4 Database table of Employee Detail

The screenshot shows the Toad for Oracle interface displaying the HR_EMP_JOB_ACADEMIC_QUALIFICATION table structure. The columns are: ACQ_ID, ACQ_LEVEL_OF_EDUCATION, ACQ_DEGREE_TITLE, CMP_BRANCH_ID, ACQ_CONCENTRATION, ACQ_INSTITUTE_NAME, ACQ_RESULT, ACQ_CGPA, ACQ_SCALE, and ACQ_YEAR_PAS.

Figure: 3.6.4.1 Databases table of employee detail academic qualification tab

Description: This is the database table for employee detail qualification tab in this table employee academic id , education level , degree title , institute etc employee detail information about qualification are stored in each columns of table according to row.

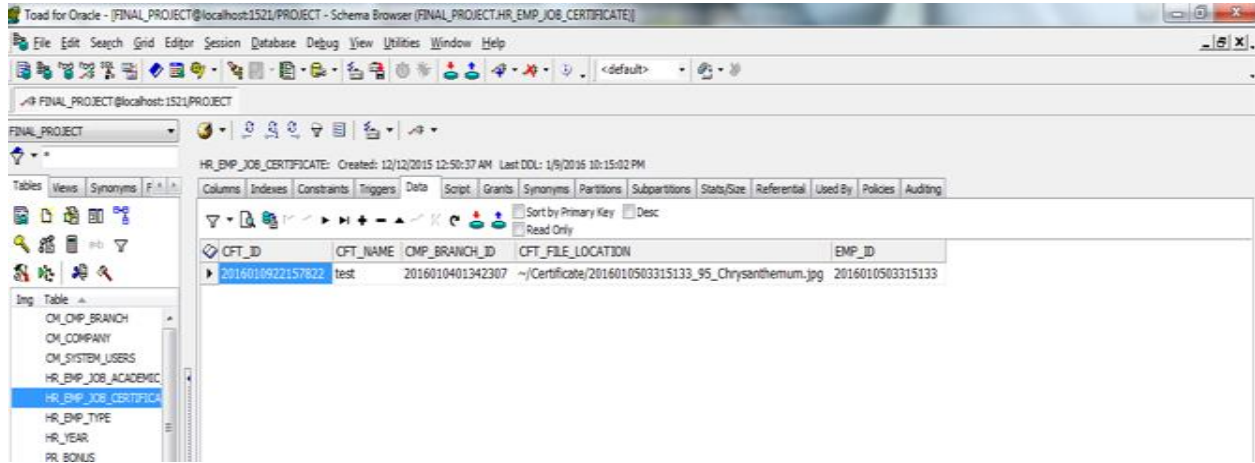


Figure: 3.6.4.2 Databases table of employee detail certificate tab

Description: This is the database table for employee detail certificate tab in this table employee certificate id , name etc employee detail information about certificate are stored in each columns of table according to row.

3.6.5 Database table of employee type

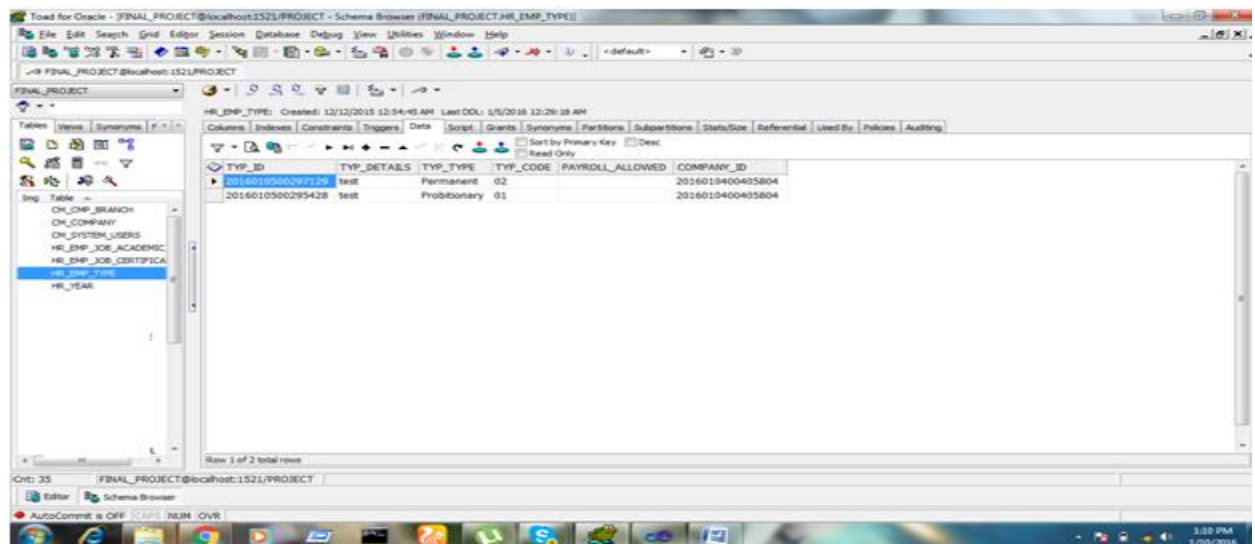


Figure: 3.6.5 Databases table of employee type

Description: This is the database table for employee type in this table employee type id , name , type detail , code etc employee type information are stored in each columns of table according to row.

3.6.6 Database table of HR year

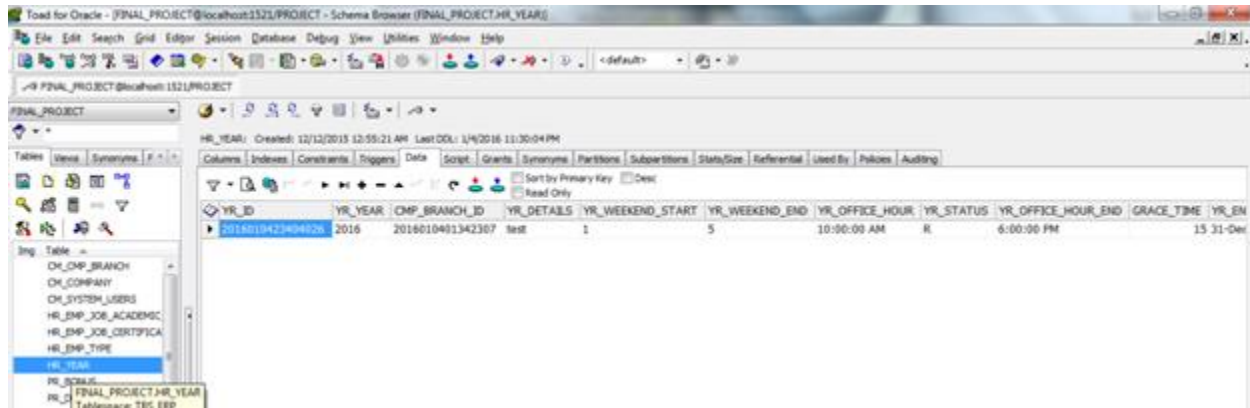


Figure: 3.6.6 Databases table of HR year

Description: This is the database table for HR year in this table HR year id , year , weekend start , weekend end , office hours etc HR year related information are stored in each columns of table according to row.

3.6.7 Database table of HR setup

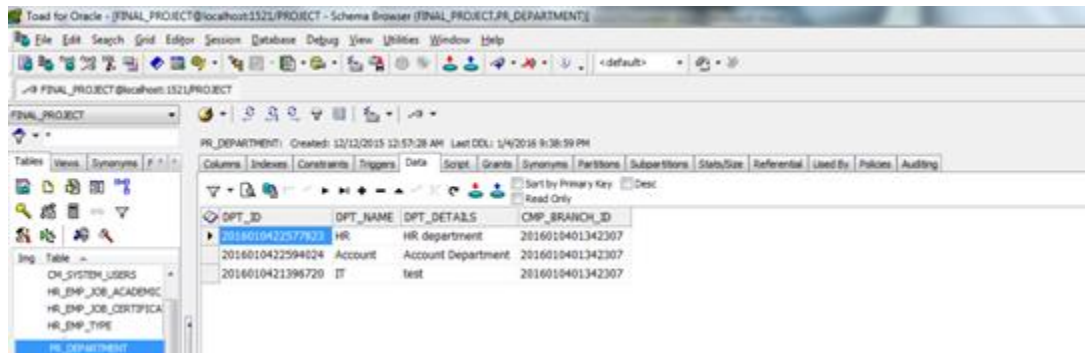


Figure: 3.6.7.1 Databases table of HR setup department tab

Description: This is the database table for HR setup department tab in this table HR department id ,name, department detail ,company branch etc HR setup department related information are stored in each columns of table according to row.

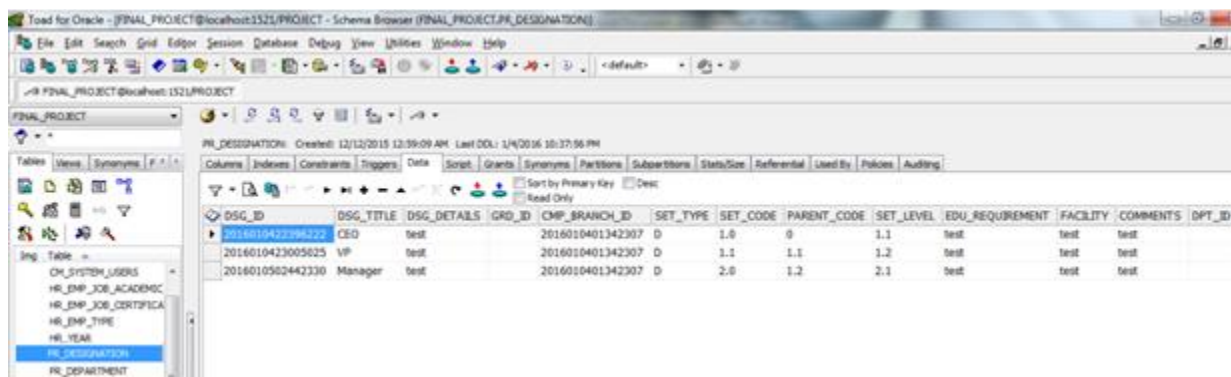


Figure: 3.6.7.2 Databases table of HR setup designation tab

Description: This is the database table for HR setup designation tab in this table HR designation id ,title, designation detail ,company branch id, type, code , parent code , level etc HR setup designation related information are stored in each columns of table according to row.

3.6.8 Database table of employee attendance

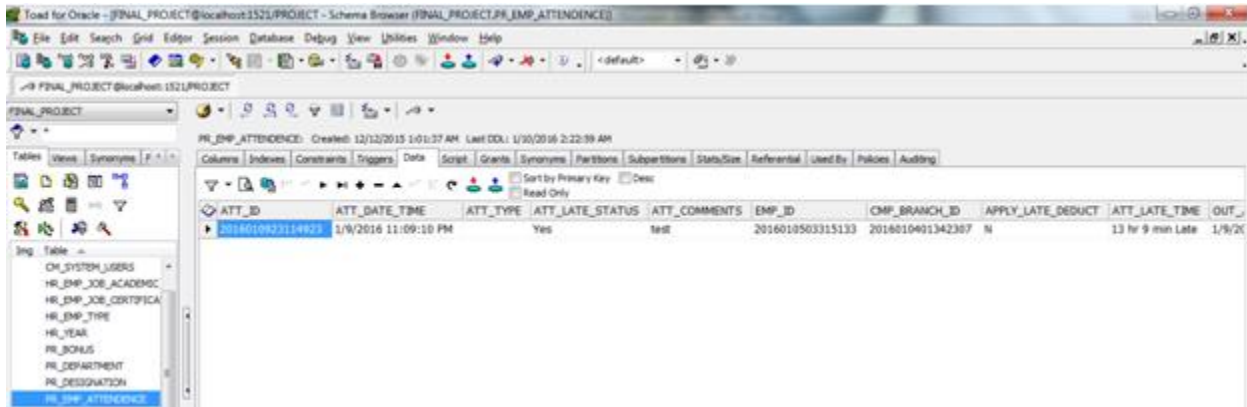


Figure: 3.6.8 Databases table of employee attendance

Description: This is the database table for employee attendance in this table attendance id ,date and time , late status ,comment etc employee attendance related information are stored in each columns of table according to row.

3.6.9 Database table of employee register

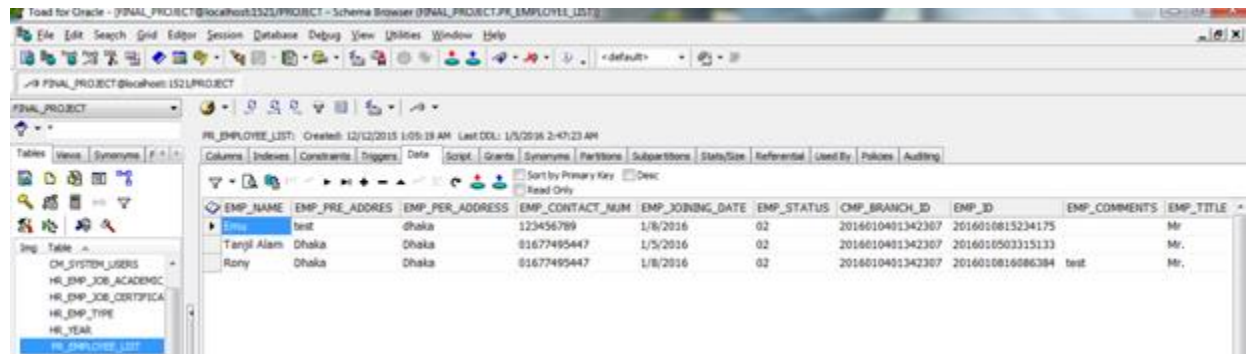


Figure: 3.6.9 Database table of employee register

Description: This is the database table for employee register in this table employee id ,permanent address , contact number ,branch id , employee status etc employee registration related information are stored in each columns of table according to row.

3.6.10 Database table of holidays

The screenshot shows the Oracle SQL Developer interface with the PR_HOLIDAY_SETUP table selected. The table structure is as follows:

PRH_ID	PRH_CAPTION	PRH_DETAILS	PRH_TYPE	FX_YEAR	PRH_TO_DATE	PRH_FROM_DATE	PRH_DATE_DURATION	EMP_BRANCH_ID	YR_ID
201601056021802	Independence Day		C		3/26/2016	3/26/2016		1 2016010401342307	2016010423404026
2016010560026227	Victory Day	test	C		12/16/2016	12/16/2016		1 2016010401342307	2016010423404026

Figure: 3.6.10 Database table of holidays

Description: This is the database table for holidays in this table holiday id ,caption , detail ,type , date, holidays year etc holidays related information are stored in each columns of table according to row.

3.6.11 Database table of leave application and leave approval

The screenshot shows the Oracle SQL Developer interface with the PR_LEAVE table selected. The table structure is as follows:

LVE_ID	LVE_DURATION	PRHT_ID	LVE_FROM_DATE	LVE_TO_DATE	LVE_STATUS	EMP_ID	LVE_PURPOSE	LVE_JOIN_DATE	LVE_APPROVED_BY	LV
2016010817967320	1	2016010804425440	1/9/2016	1/9/2016	C	2016010816086384	test	1/10/2016		
2016010812245840	3	2016010815083164	1/10/2016	1/12/2016	A	2016010503315133	test	1/13/2016	0	
2016010903012411	1	2016010804425440	1/9/2016	1/9/2016	R	2016010503315133	test	1/10/2016	Rony	1/11/2016
2016010918143521	1	2016010804425440	1/10/2016	1/10/2016	A	2016010815234175	test	1/11/2016	0	

Figure 3.6.11 Database table of leave application and leave approval

Description: This is the database table for leave application and leave approval, in this table leave id ,duration , leave from and to date ,leave status , employee id , leave join date , leave approved by , leave approve date etc leave application and leave approval related information are stored in each columns of table according to row. This table stores all of the leave application and leave applications related information for each individual employee of the company. In each access of leave application or leave approval related activates of employee this table may be updated time to time according to access.

3.6.12 Database table of leave allowed

The screenshot shows the Toad for Oracle interface displaying the PR_LEAVE_ALLOWED table. The table has the following columns: LEAVEALL_ID, CMP_BRANCH_ID, EMP_ID, PRLT_ID, YR_ID, LEAVEALL_ALLOWED, and LEAVE_ALLOWED_MON. The data is as follows:

LEAVEALL_ID	CMP_BRANCH_ID	EMP_ID	PRLT_ID	YR_ID	LEAVEALL_ALLOWED	LEAVE_ALLOWED_MON
2016010992357805	2016010401342307	2016010815234175	2016010804425440	2016010423404026	25	
2016010992357906	2016010401342307	2016010815234175	2016010815083164	2016010423404026	30	
2016010992357907	2016010401342307	2016010816086384	2016010804425440	2016010423404026	30	
2016010992357908	2016010401342307	2016010816086384	2016010815083164	2016010423404026	30	
2016010992358009	2016010401342307	2016010503315133	2016010804425440	2016010423404026	30	
2016010992358009	2016010401342307	2016010503315133	2016010815083164	2016010423404026	30	

3.6.12 Database table of leave allowed

Description: This is the database table for leave allowed in this table leave allowed id ,branch id , employee type id , year , total number of leave allowed for each employee etc leave allowed related information are stored in each columns of table according to row.

3.6.13 Database table of leave policy

The screenshot shows the Toad for Oracle interface displaying the PR_LEAVE_POLICY table. The table has the following columns: PRLP_ID, PRLT_ID, PRLP_DAYS, PRLP_ALLOWANCE, PRLP_PAYABLE, CMP_BRANCH_ID, DSG_ID, YR_ID, TYP_CODE, and PRLP_MON_DAYS. The data is as follows:

PRLP_ID	PRLT_ID	PRLP_DAYS	PRLP_ALLOWANCE	PRLP_PAYABLE	CMP_BRANCH_ID	DSG_ID	YR_ID	TYP_CODE	PRLP_MON_DAYS
2016010815484276	2016010815083164	30			2016010401342307	2016010422396222	2016010423404026	02	30
2016010815484277	2016010815083164	30			2016010401342307	2016010423095025	2016010423404026	02	30
2016010815484378	2016010815083164	30			2016010401342307	2016010502442230	2016010423404026	02	30
201601081566469	2016010804425440	30			2016010401342307	2016010422396222	2016010423404026	02	3
2016010815167870	2016010804425440	25			2016010401342307	2016010423095025	2016010423404026	02	3
2016010815173171	2016010804425440	20			2016010401342307	2016010502442230	2016010423404026	02	2

Figure 3.6.13.1: Database table of leave policy leave policy tab

Description: This is the database table for leave policy tab in this table leave policy id , type id , total number of days for leave policy ,type code, year id , monthly remaining days for each employee etc leave policy policy related information are stored in each columns of table according to row.

PRLT_ID	PRLT_TITLE	PRLT_DETAILS	PRLT_CREATE_DATE	PRLT_IS_ENCASHABLE	PRLT_IS_PAYABLE	CMP_BRANCH_ID	PRLT_CODE	PRLT_CODE_NAME
201601080425440	Casual Leave	test	1/8/2016 4:42:33 AM			2016010401342307	01	CL
2016010815083164	Medical Leave	test	1/8/2016 3:08:10 PM			2016010401342307	02	ML

Figure 3.6.13.2: Database table of leave policy leave type tab

Description: This is the database table for leave type tab in this table leave type id , type title ,type details, create date , type code , code name etc leave policy type related information are stored in each columns of table according to row.

3.6.14 Database table of Performance Report

PERFORMANCE_ID	DPT_ID	EMP_ID	MARK	ASSESSED_BY	CMP_BRANCH_ID
201601112577700	2016010422594024	2016010503315133	5	2016010503315133	2016010401342307
2016011113587361	2016010422594024	2016010816086384	4	2016010503315133	2016010401342307
2016011115017282	2016010422594024	2016010503315133	5	2016010815234175	2016010401342307
2016011115022383	2016010422594024	2016010816086384	5	2016010815234175	2016010401342307

Figure 3.6.14: Database table of Performance Report

Description: This is the database table for performance report in this table performance id ,department id, employee id , mark , assessment by , branch id etc performance report related information are stored in each columns of table according to row.

3.6.15 Database table of Payroll

The screenshot shows the Oracle SQL Developer interface. The main window displays the table structure for HR_EMPLOYEE_PAYROLL. The table has the following columns: PAYROLL_ID, BASIC, HOUSE_RENT, MEDICAL, CONVENIENCE, PHONE, TOTAL_GROSS, BONUS, DPT_ID, EMP_ID, and CMP_BRANCH_ID. The table contains three rows of data.

PAYROLL_ID	BASIC	HOUSE_RENT	MEDICAL	CONVENIENCE	PHONE	TOTAL_GROSS	BONUS	DPT_ID	EMP_ID	CMP_BRANCH_ID
201601100110744	15000	8000	1000	2000	500	24500	50	2016010-02594024	2016010811086384	2016010401182307
2016011001115415	40000	20000	5000	2000	1000	68000	50	2016010-021396720	20160108110234175	2016010401182307
2016011001115942	20000	10000	1000	2000	1000	34000	50	2016010-02594024	2016010500115133	2016010401182307

Figure 3.6.15: Database table of Payroll

Description: This is the database table for payroll in this table payroll id ,basic salary, house, medical, convince ,phone, total gross, bonus , employee id , company branch id etc payroll related information are stored in each columns of table according to row.

Chapter 4

Design Specification

A design specification is a detailed document providing information about the characteristics of a project to set criteria the developers will need to meet. Its use is called for where a structure or product has to be specially made to meet a unique need. The design specifications for HRM solution is discussed in this chapter .

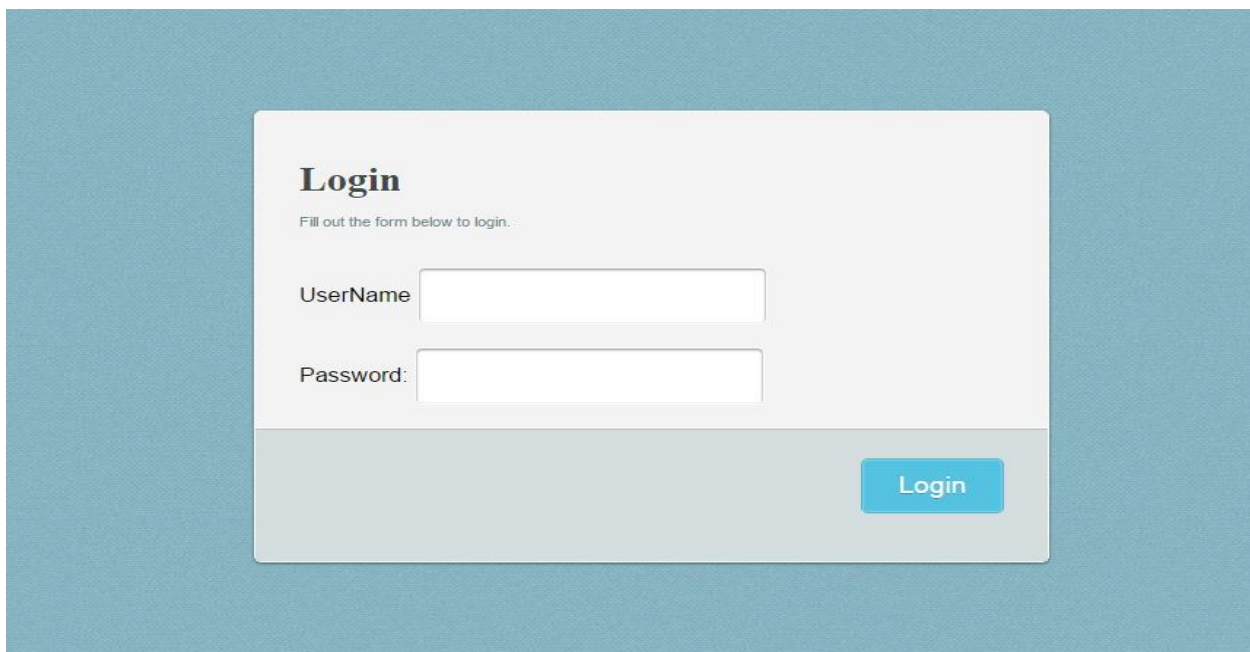
4.1 Interface

A critical aspect of systems design is to create the user interface to the new system. Input and output design focuses on the content of that interface – the specific fields that should be included in screens and reports that are viewed by the users. Once the content is determined, the format for human-computer interaction (HCI) is determined. The user interface (UI) is the way the system talks to the users, using screens/forms, reports, and error messages. During interface design developers identify procedures for each system activity and the required inputs for those activities. These required inputs become screens or forms. User involvement is critical during these design activities.

4.2 User Interface

4.2.1 Log In Page

The login page of the HRM solution is shown in figure



The image shows a login page with a light blue background. A white rectangular box contains the login form. At the top of the box, the word "Login" is written in bold. Below it, a smaller text says "Fill out the form below to login.". There are two input fields: "UserName" and "Password:". The "Password:" label is to the left of the field. At the bottom right of the box, there is a blue button with the word "Login" in white text.

Figure : 4.2.1 Log In Page

Description:

This is the login page for HRM solution. There is a user name field and a password field. This input must be filled accurately. Without filling all the fields the form can't be submitted. The three type users admin, super admin and employee can log in using their individual user name and password. Only valid user name and password is acceptable; if user name and password is wrong then a error message is shown.

4.3 Welcome Page

The welcome page of the HRM solution is shown in figure

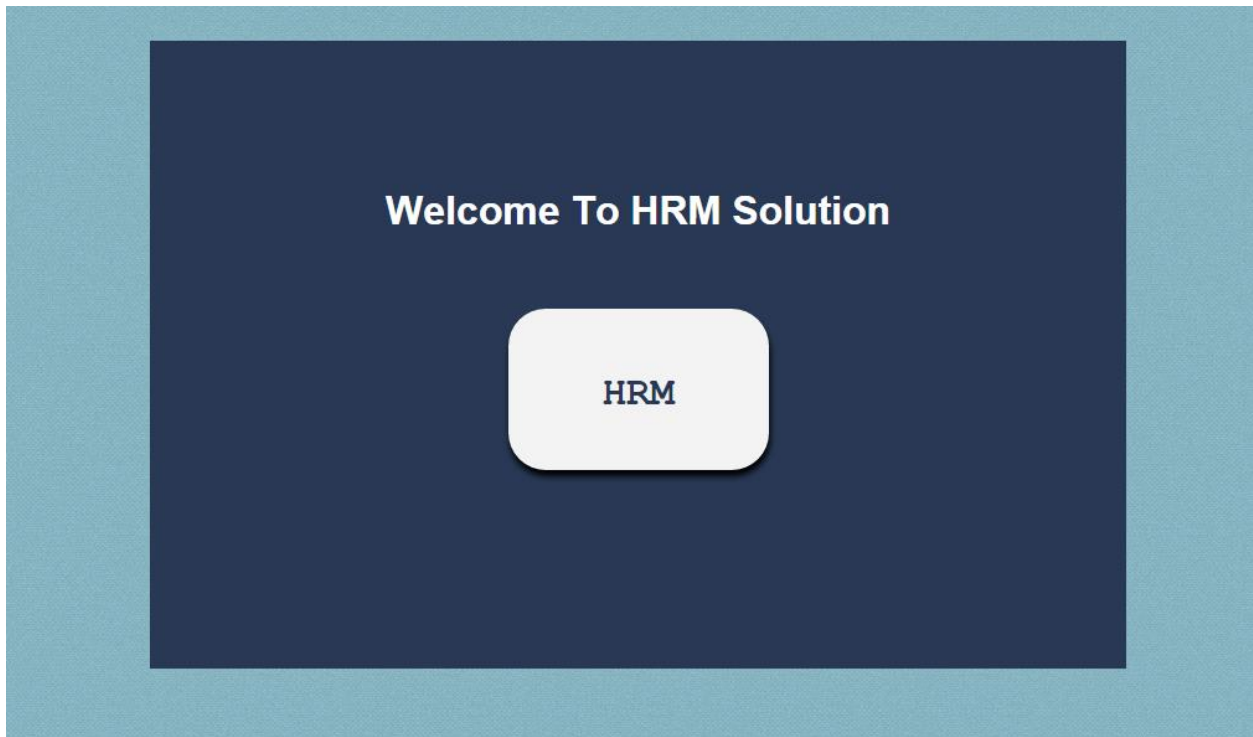


Figure : 4.3 Welcome Page

Description:

This is the welcome page for HRM solution. Whenever a successful login occurs the user enters this page. In this page user just selects the HRM button then he is automatically redirected to the main page of HRM solution according to his user type. So this page act as the main HRM module of this solution.

4.4. Main page:

The main page of the HRM solution is shown in figure

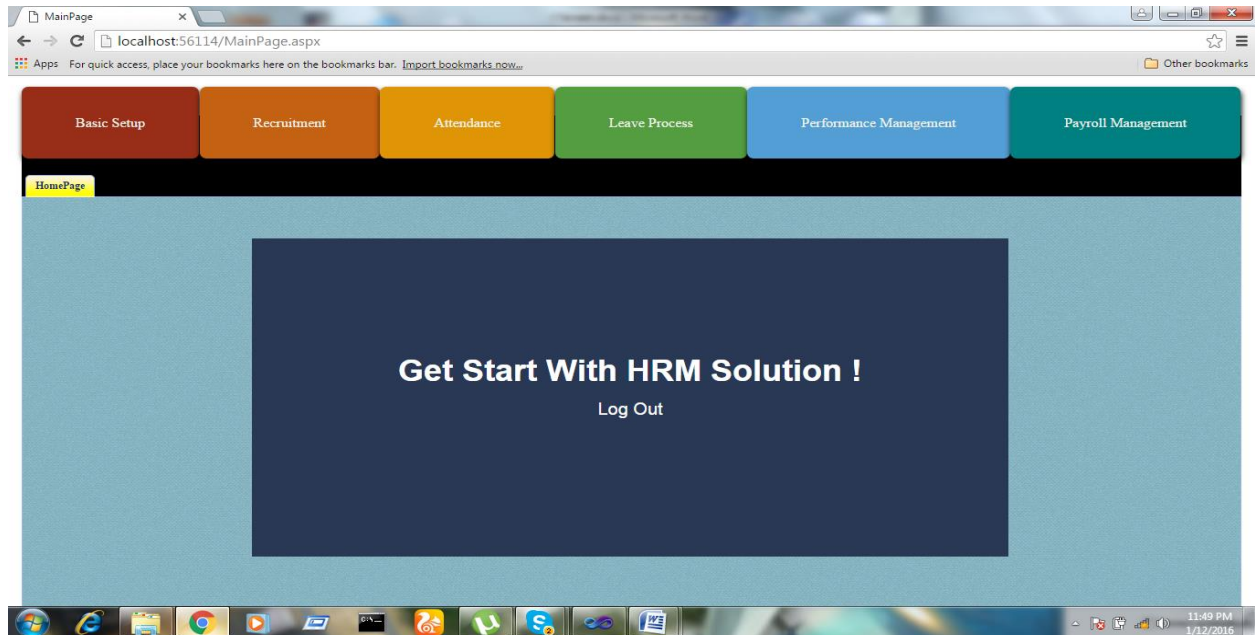


Figure : 4.4. Main page:

Description:

This page is the main interface of the HRM solution. This page contains all the available sub-module and their available pages under those modules. This is defined by the user types. Only certain type of users can access certain modules and their pages

4.4.1 Main page Super Admin

The main page for the super admin of HRM solution is shown in figure

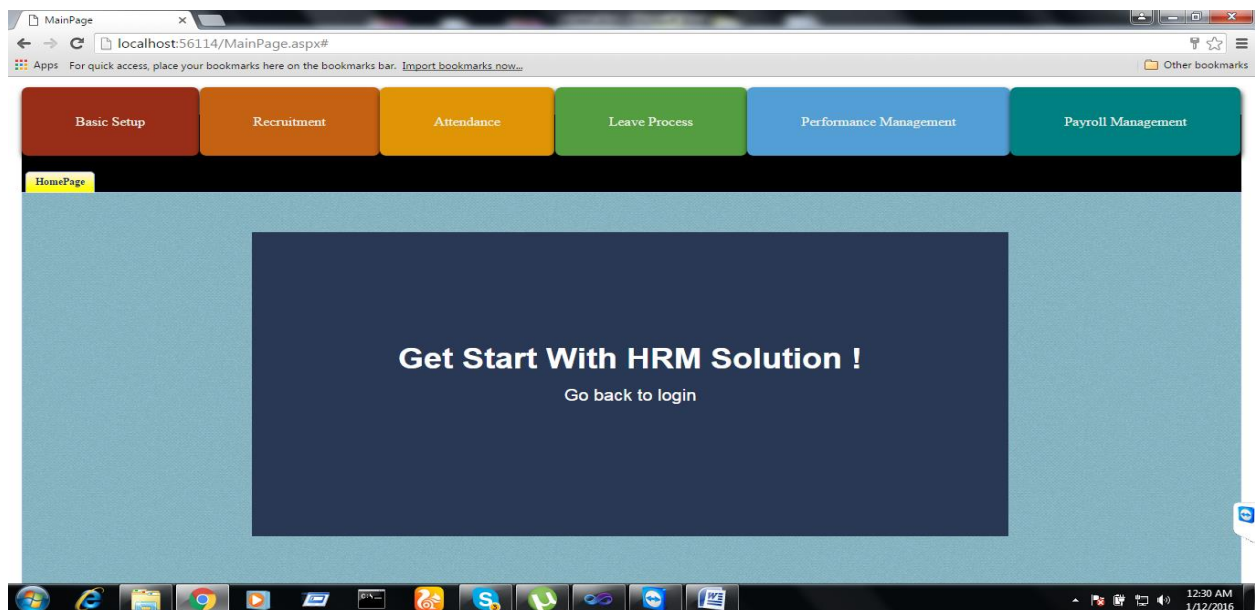


Figure : 4.4.1 Main page Super Admin

Description:

This page is the main interface of the HRM solution. This page contains all of the available modules and their available pages under those modules for super admin.

4.4.2 Company Information

The company information page of the HRM solution is shown in figure

The screenshot shows a web browser window with the URL `localhost:56114/MainPage.aspx#`. The main navigation bar contains six colored buttons: Basic Setup (red), Recruitment (orange), Attendance (yellow), Leave Process (green), Performance Management (blue), and Payroll Management (teal). Below the navigation bar, there is a breadcrumb trail with 'HomePage' and 'Company Information' (highlighted in yellow). A table displays the following data:

Company Name	Short Name	Address 1	Address 2	City Name	Country	Fax	Phone	Company Registration Date	Mobile	Email Address	Web Address
East West University	EWU1	test	test	Dhaka	Bangladesh	1234567891	234567891	4/2016 12:40:35 AM	123456789	finalproject@ewu.com	ewu.bd.edu

Below the table, the 'Company Information' form is visible. It includes the following fields:

- Company Name
- Short Name
- Country
- City
- Fax
- Mobile
- TelePhone
- E-mail
- Web
- Address 1
- Address 2

A 'Save' button is located at the bottom of the form.

Figure : 4.4.2 Company Information

Description:

This page contains a form for fill out all of the basic information for the company such as company name, country, city, fax, mobile, web address ,e-mail address , telephone number , address1 , address 2 of company etc and save these information. After saving these information. These information are also displayable in this page. Only super admin can access this page.

4.4.3 Branches

The branches page of the HRM solution is shown in figure

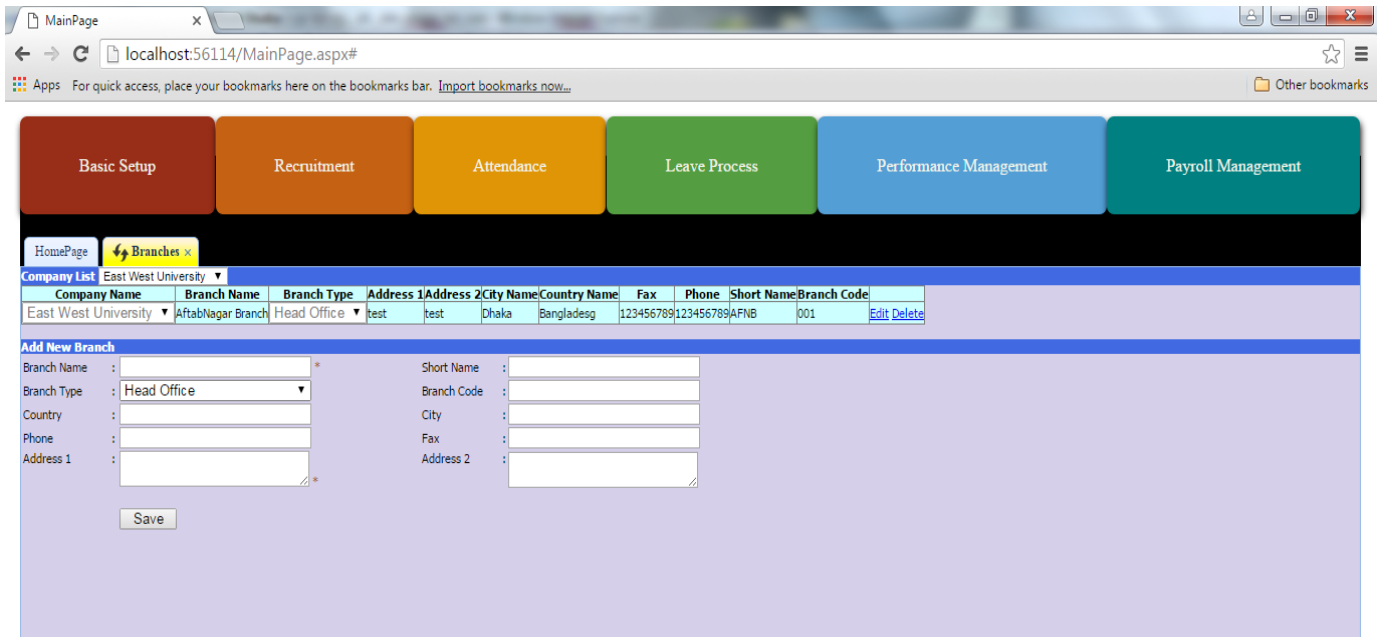


Figure : 4.4.3 Branches

Description:

This page contains a form for fill out all of the basic information for the company branches such as branch name, type, code, country, city, address etc and save these information. Thus we can add one or more branches for company . After saving these information. Branch information also displayable in this page. Only super admin can access this page.

4.4.4 System Users

The System Users page of the HRM solution is shown in figure

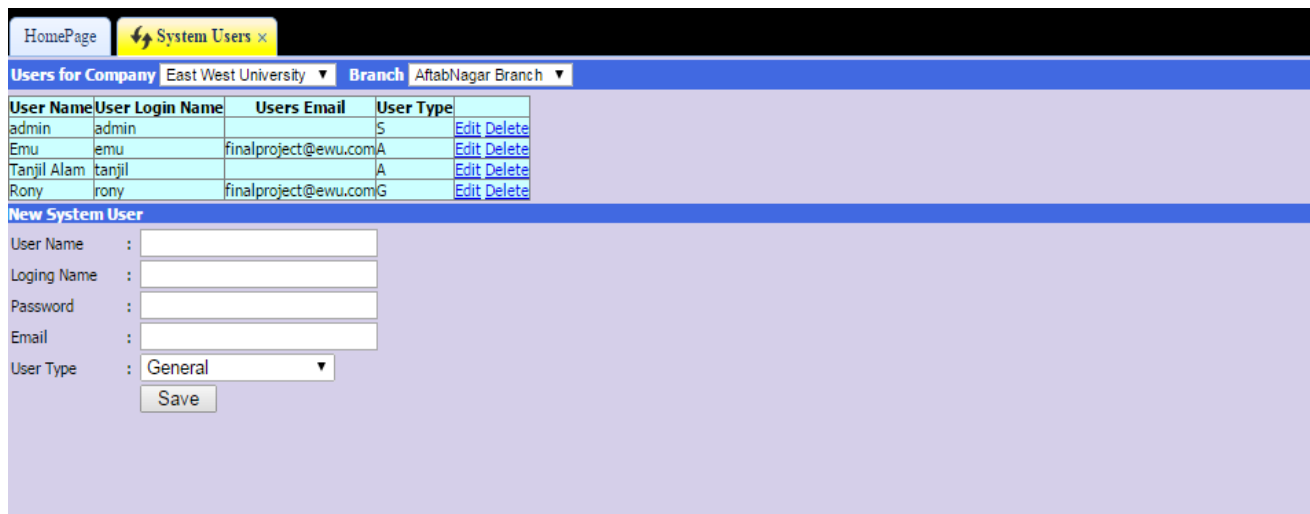


Figure : 4.4.4 System Users

Description:

In this page super admin can register a new system user using the users user name, unique login name ,password , email and by doing so a unique id given to the user for further use. User must save this unique id and password so that he can use it in other processes and login.

4.4.5 HR Setup

The HR Setup page of the HRM solution is shown in figure

Branch	Department Detail	Department Detail	
AftabNagar Branch	HR	HR department	Edit Delete
AftabNagar Branch	Account	Account Department	Edit Delete
AftabNagar Branch	IT	test	Edit Delete

Figure : 4.4.5 HR Setup

Description:

Here department setup and designation setup is done .And under a branch department name and department details can be added .As well as in insert designation form an employees ,designation code , parent, level, title, details ,educational requirements etc can be added under designation. This information is also displayable in this page. Only super admin can access this page.

4.4.6 HR Year

The HR Year page of the HRM solution is shown in figure

Branch	Year Start Date	End Date	Weekend Start	Weekend End	Office Starts	Office End	Grace Time (Min)	Details	Status	
AftabNagar Branch	2016 01-Jan-2016	31-Dec-2016	Sunday	Thursday	10:00:00 AM	6:00:00 PM	15	test	Running	Edit

Figure : 4.4.6 HR Year

Description:

Total working days of office can be defined by start date and end date. The Weekend start and weekend end defines total working days in a week. The office start and end time defines total office hour and grace time is for employee. All of these available fields are selected by super admin. The HR year information is also displayable in this page.

4.4.7 Holiday

The HR Holiday page of the HRM solution is shown in figure

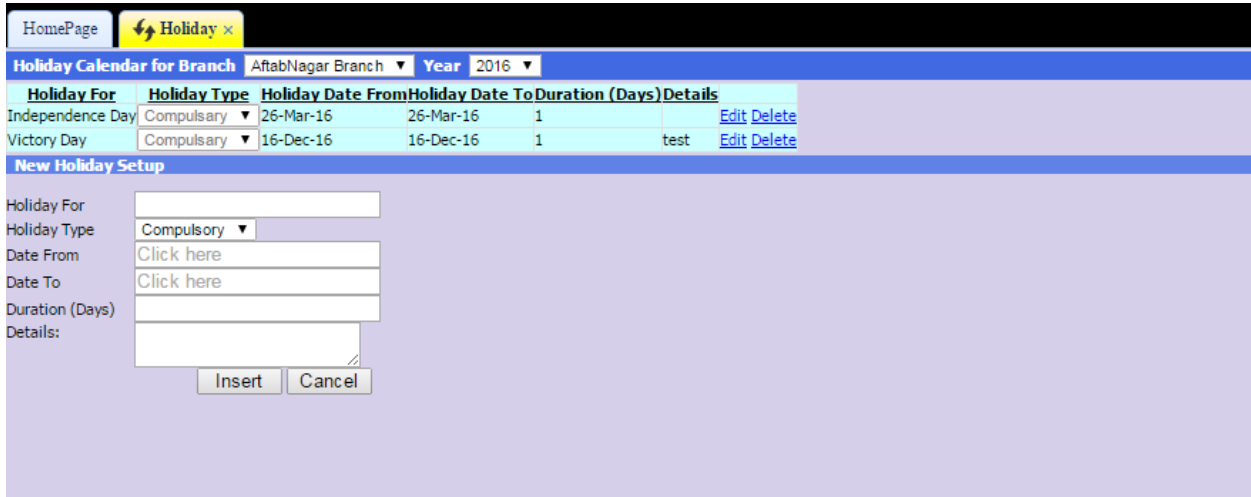


Figure : 4.4.7 Holiday

Description:

The super admin can chose the reason for holiday for, holiday type, date from for start holiday, date to for end holiday, holiday duration etc. The holiday information is also displayed in this page.

4.4.8 Employee Type

The Employee Type page of the HRM solution is shown in this figure

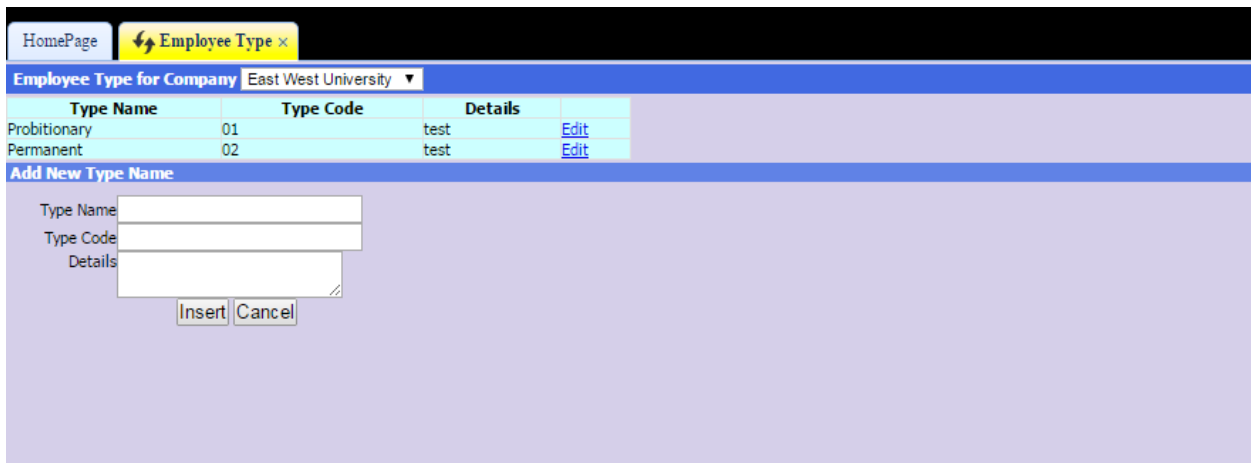


Figure : 4.4.8 Employee Type

Description:

For an employee the super admin can select his type name such as permanent or provision. As well as his type code. The small detail about is also filled by super admin.

4.4.9 Employee Register

The Employee Register page of the HRM solution is shown in this figure

The screenshot displays the 'Employee Register' page. At the top, there are navigation tabs for 'HomePage' and 'Employee Register'. Below this is a header bar with 'Employee Register for Branch' (AftabNagar Branch), 'Status' (Permanent), and a dropdown menu. The main content area features a table with columns: Branch, Employee Code, Title Name, Employee Status, Department, Employee Designation, Father's Name, Mother's Name, Present Address, Permanent Address, Date of Birth, Nationality, Marital Status, Email, Gender, Joining Date, Expected Confirmation Date, System User, and Provision Period (Month). Three rows of employee data are visible. Below the table is a 'New Employee Register' form with fields for Employee Code, Title, Father's Name, Gender, Nationality, Department, Joining Date, Marital Status, Provision Period, Comments, User ID, Name, Mother's Name, Date of Birth, Religion, and Employee Designation. A 'Save' button is located at the bottom of the form.

Figure : 4.4.9 Employee Register

Description:

Here the super admin can register a new employee in his office by filling out basic information such as employee's code, title, father name, gender ,employees department etc. The registered employee's information is also shown in this page.

4.4.10 Employee Detail

The Employee Detail page of the HRM solution is shown in this figure

The screenshot displays the 'Employee Detail' page. At the top, there are navigation tabs for 'HomePage' and 'Employee Detail'. Below this is a header bar with 'Branch' (AftabNagar Branch), 'Department' (HR), 'Status' (Probationary), and 'Employee List' (a dropdown menu). The main content area features a form with tabs for 'Address & Contact', 'Accademic Qualification', 'Upload Photo & Signature', and 'Upload Certificates'. The 'Address & Contact' tab is active, showing fields for Present Address, Permanent Address, Contact Number, National ID, Passport ID, and Email ID. A 'Save' button is located at the bottom of the form.

Figure : 4.4.10 Employee Detail

Description:

In this page super admin can insert detail information such as address & contact, academic qualification, photo, signature and certificate for an employee

4.4.11 Employee Attendance

The Employee Attendance page of the HRM solution is shown in this figure



Figure : 4.4.11 Employee Attendance

Description:

In this page new employee attendance can submitted.

4.4.12 Attendance View

The Attendance View page of the HRM solution is shown in this figure

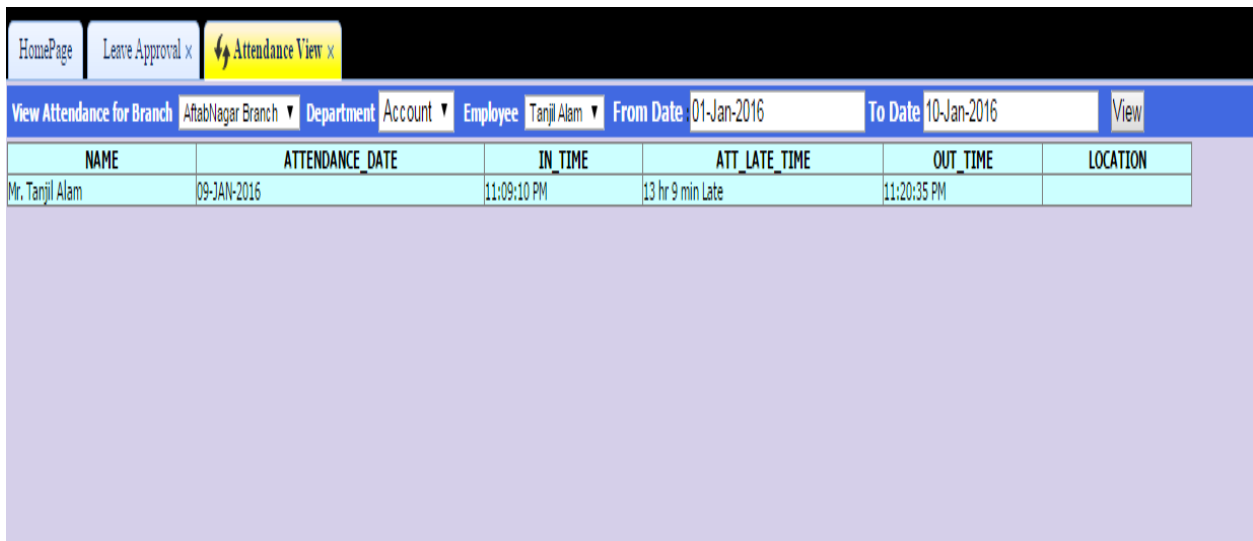


Figure : 4.4.12 Attendance View

Description:

In this page attendance view is shown. This page is only accessible to admin.

4.4.13 Leave Policy

The Leave Policy page of the HRM solution is shown in these figures

Branch	Year	Employee Designation	Employee Type	Leave Type	Total Leave	Monthly Leave	
AftabNagar Branch	2016	1.0 - CEO	Permanent	Casual Leave	30	3	Edit Delete
AftabNagar Branch	2016	1.1 - VP	Permanent	Casual Leave	25	3	Edit Delete
AftabNagar Branch	2016	2.0 - Manager	Permanent	Casual Leave	20	2	Edit Delete

New Leave Policy

Employee Designation: 1.0 - CEO Common For All

Monthly Leave:

Yearly Leave:

Figure : 4.4.13.1 Leave Policy tab leave policy

Description:

In this page leave policy for company employee can be set. This page is only accessible to super admin.

Branch	Leave Code	Leave Code Name	Leave Type	Details
AftabNagar Branch01	CL	Casual Leave test		Edit Delete
AftabNagar Branch02	ML	Medical Leave test		Edit Delete

New Leave Type

Leave Code Order:

Leave Code:

Leave Type:

Detail:

Figure : 4.4.13.1 Leave Policy tab leave type

Description:

In this page office leave policy leave type is set by super admin. At first in leave type forms leave code order, code, type is set. Then in leave policy forms according to employee designation , monthly leave , yearly leave is set by super admin.

4.4.14 Leave Allowed

Leave Allowed page of the HRM solution is shown in figure

Employee	Grade	Type	Casual Leave	Medical Leave
Mr. Emu	1.1 - VP	Permanent	25	30
Mr. Rony	2.0 - Manager	Permanent	20	30
Mr. Tanjil Alam	1.0 - CEO	Permanent	30	30

Figure : 4.4.14 Leave Allowed

Description:

In this page super admin can save total leaves for employees so that all leaves are automatically goes to all employees of designations.

4.4.15 Leave Application

The Leave Application page of the HRM solution is shown in figure

Leave Type	Yearly Leave	Monthly Leave	Total Monthly Leave Due	Leave Sanctioned	Total Due Leave
Casual Leave	30	3	2	1	29
Medical Leave	30	30	30	0	30

Branch	Employee	Acting Person	Leave Type	From Date	To Date	Join Date	Duration
AftabNagar Branch	Mr. Tanjil Alam	Mr. Emu	Casual Leave	09-Jan-16	09-Jan-16	10-Jan-16	1

New Leave Application

Leave Type : Casual Leave
 Acting Person : Emu
 From Date : Click here
 To Date : Click here
 Join Date : Click here
 Total Duration :
 Phone Number :
 Leave Purpose :
 Address :
 Save

Figure : 4.4.15 Leave Application

Description:

In this page an employee can apply for leave by checking leave type , filling leave form and leave to , total duration , leave purpose , address , phone etc. Employees pending application is also shown in this page

4.4.16 Leave Approval

The Leave Approval page of the HRM solution is shown in this figure

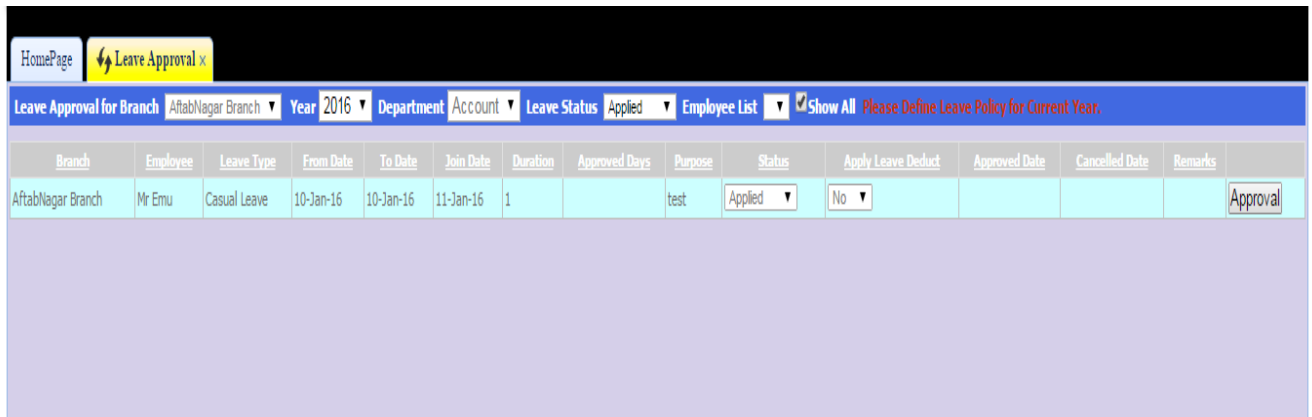


Figure : 4.4.16 Leave Approval

Description:

In this page super admin can approve existing employee's leave application.

4.4.17 Employee performance

The Employee performance page of the HRM solution is shown in figure

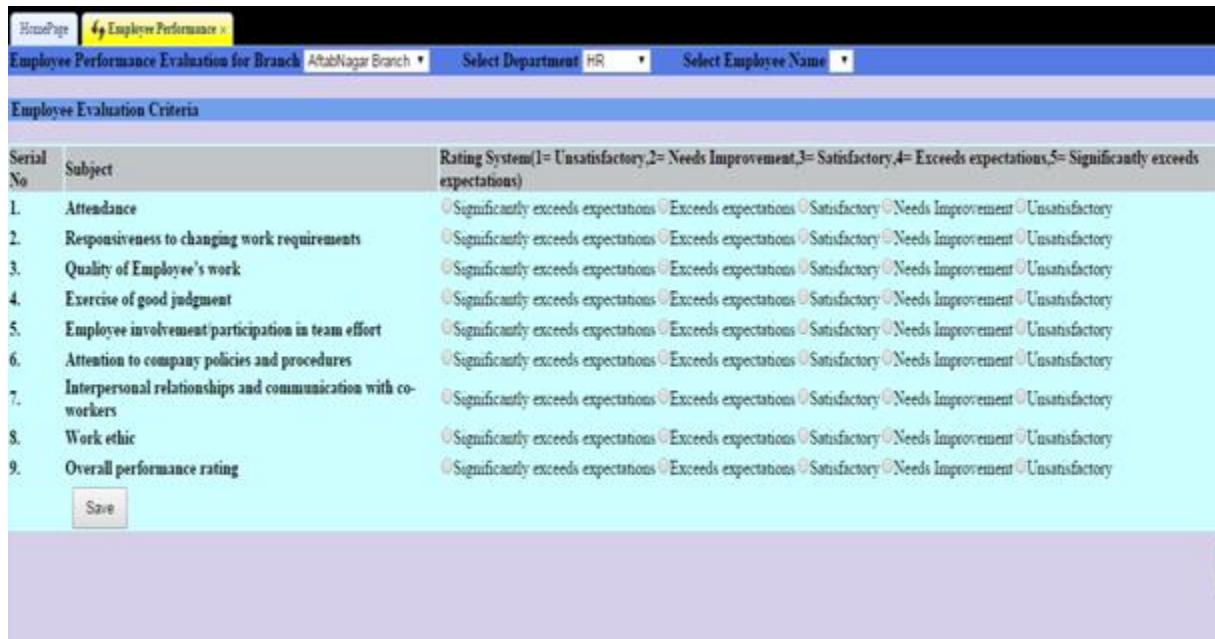


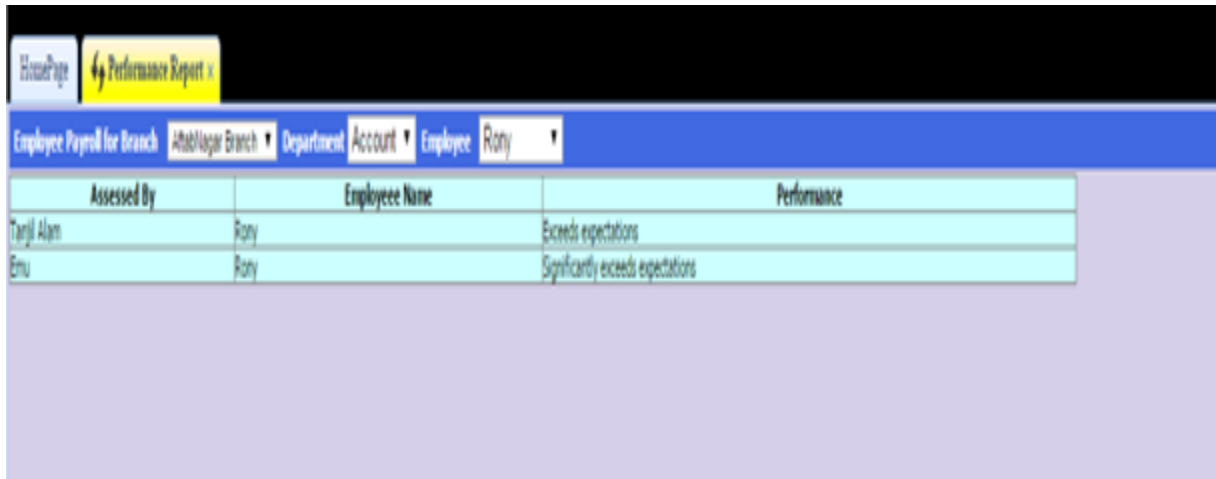
Figure : 4.4.17 Employee performance

Description:

In this page super admin can evaluate an employee of a selected branch and department by selecting evaluation criteria.

4.4.18 Performance report

The Performance report page of the HRM solution is shown in figure



Assessed By	Employee Name	Performance
Taril Alan	Rony	Exceeds expectations
Emu	Rony	Significantly exceeds expectations

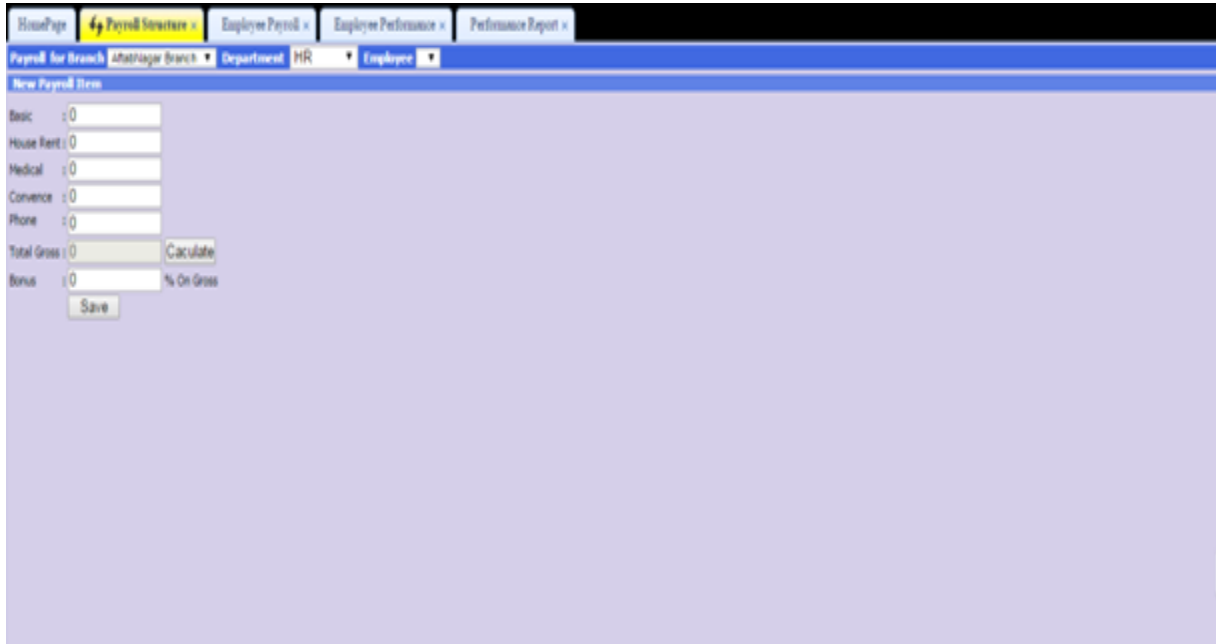
Figure : 4.4.18 Performance report

Description:

In this page performance report of an employee of a selected branch and department is shown.

4.4.19 Payroll Structure

The Payroll Structure page of the HRM solution is shown in figure



New Payroll Item

Basic : 0
House Rent : 0
Medical : 0
Convenance : 0
Phone : 0
Total Gross : 0 Calculate
Bonus : 0 % On Gross
Save

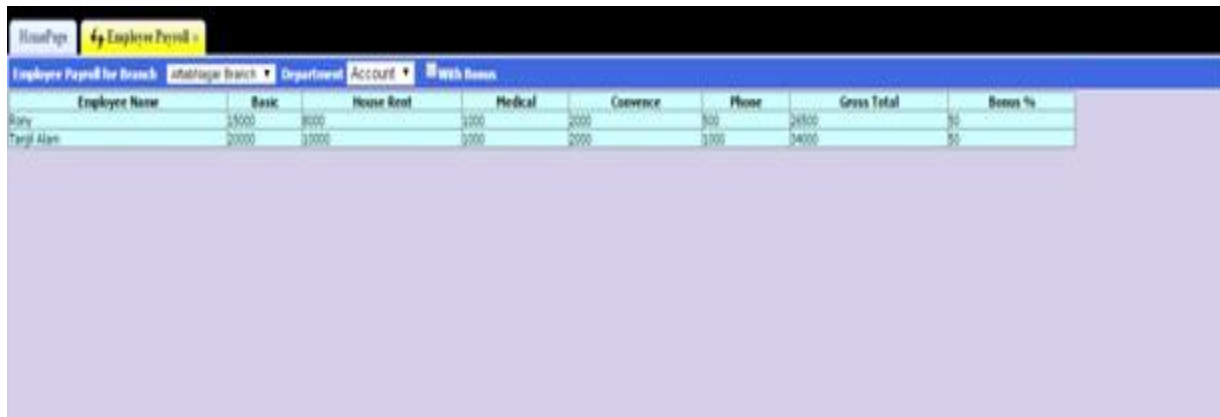
Figure : 4.4.19 Payroll Structure

Description:

In this page super admin first does payroll item setup then under a payroll item then he sets total payroll structure.

4.4.20 Employee Payroll

The Employee Payroll page of the HRM solution is shown in figure



Employee Name	Basic	House Rent	Medical	Conveyance	Phone	Gross Total	Bonus %
Ravi	1500	300	100	200	30	2130	30
Taraji Alan	2000	1000	300	200	100	3400	50

Figure 4.4.20 Employee Payroll

Description: In this page employee payroll information is displayed to super admin.

4.4.21 Main page Department Admin:

The main page for the department admin of HRM solution is shown in figure

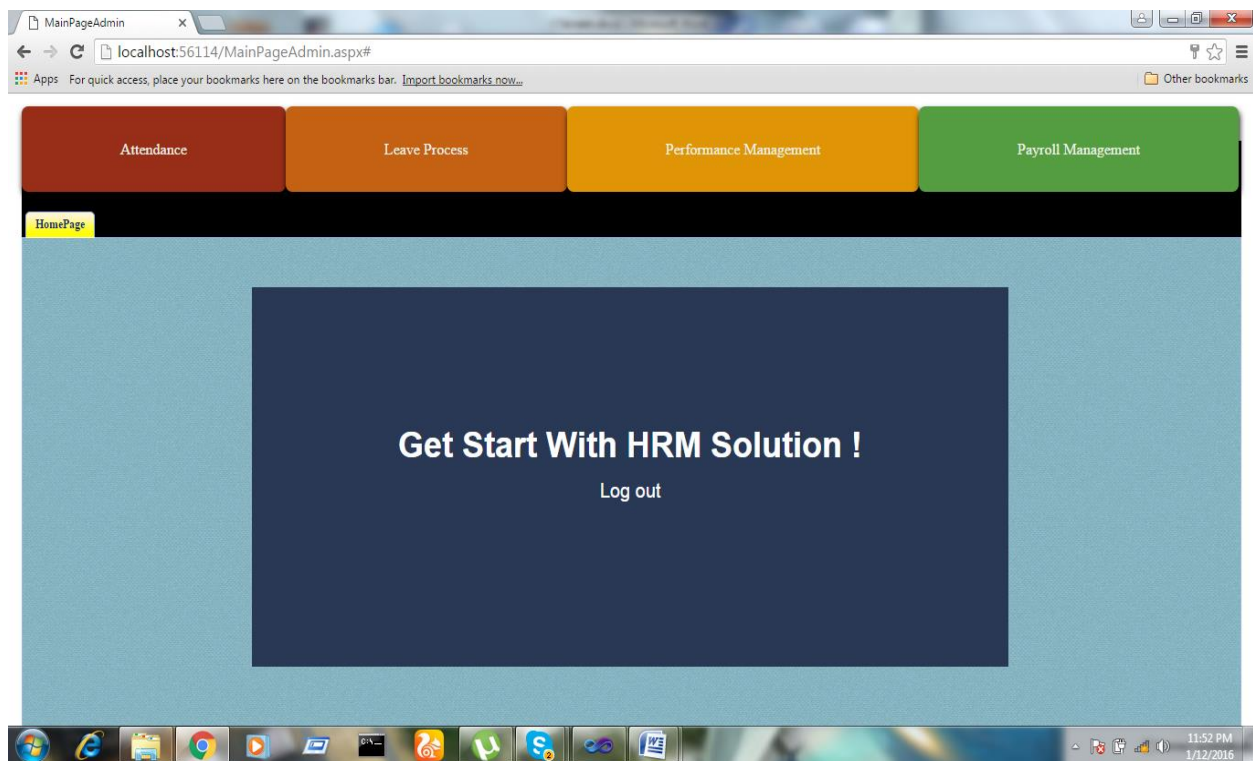


Figure 4.4.21 Main page Department Admin

Description:

This page is the main interface of the HRM solution. This page contains all the available sub-module and their available pages under those modules for department admin.

4.4.22 Employee Attendance for department admin

The Employee Attendance for department admin page of the HRM solution is shown in figure



figure 4.4.22 : Employee Attendance for department admin

Description:

In this page new attendance can submitted. He can also give outdoor attendance

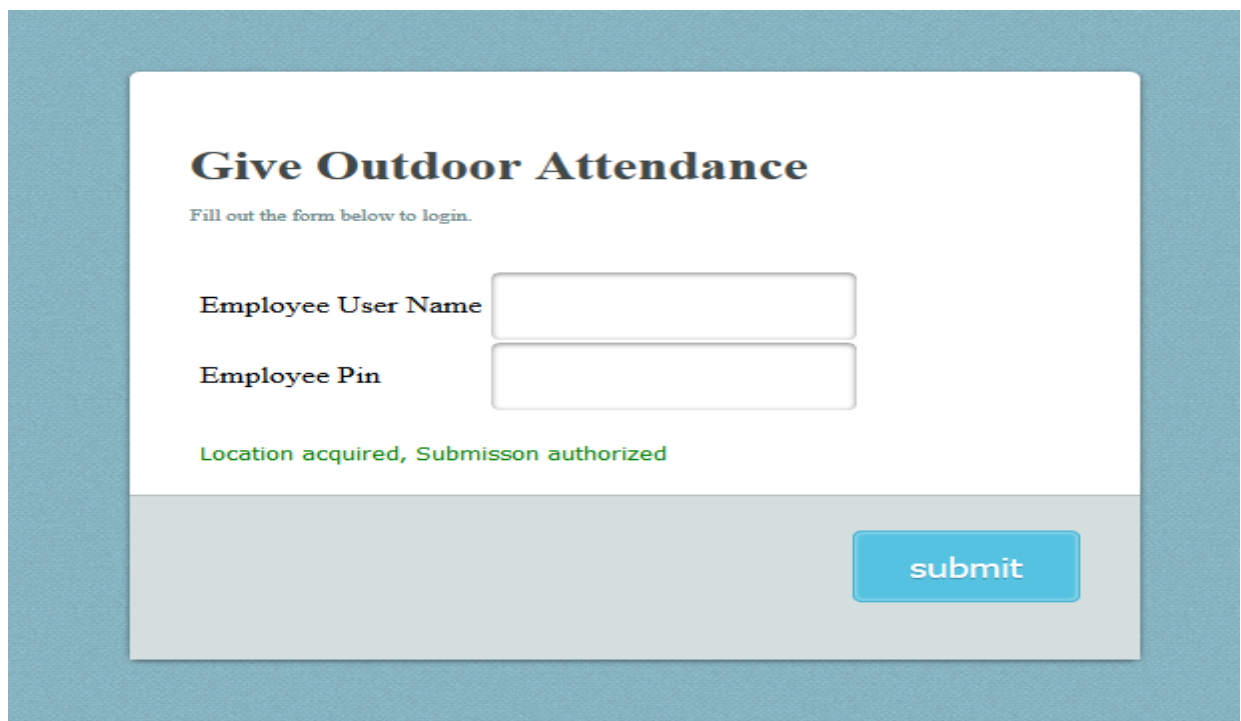


figure 4.4.22.1 : Outdoor Attendance for department admin

Description:

In this page new outdoor attendance can submitted. The submitted attendance is automatically passed to main solution using a web service with the current location.

4.4.23 Attendance View for department admin

The Attendance View page of the HRM solution is shown in figure

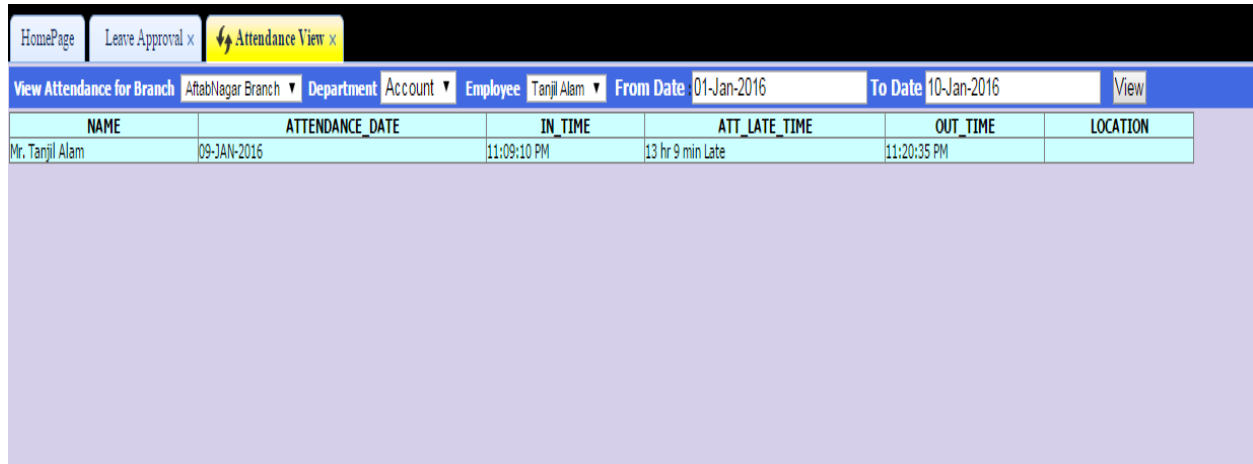


figure : 4.4.23 Attendance View for department admin

Description:

In this page attendance view for any employee under department admin department is shown under a certain date period.

4.4.24 Leave Application for department admin

The Leave Application page of the HRM solution is shown in figure

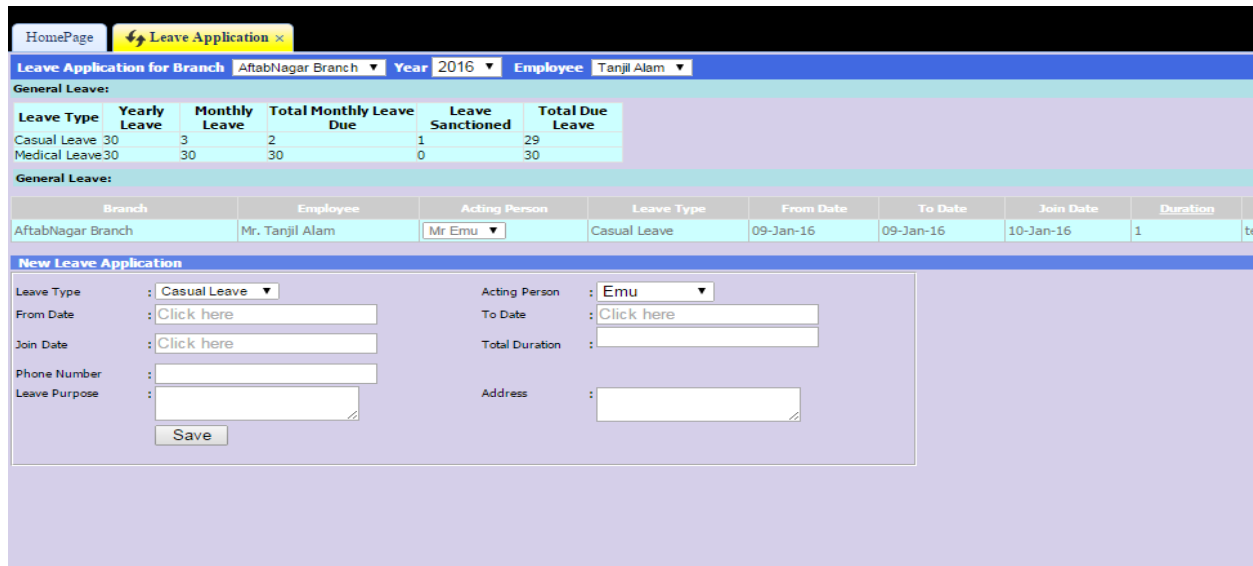


figure : 4.4.24 Leave Application for department admin

Description:

In this page an employee can apply for leave by checking leave type, filling leave form and leave to , total duration , leave purpose , address , phone etc. Employees pending applications are also shown in this page.

4.4.25 Leave Approval for department admin

The Leave Approval page of the HRM solution is shown in figure



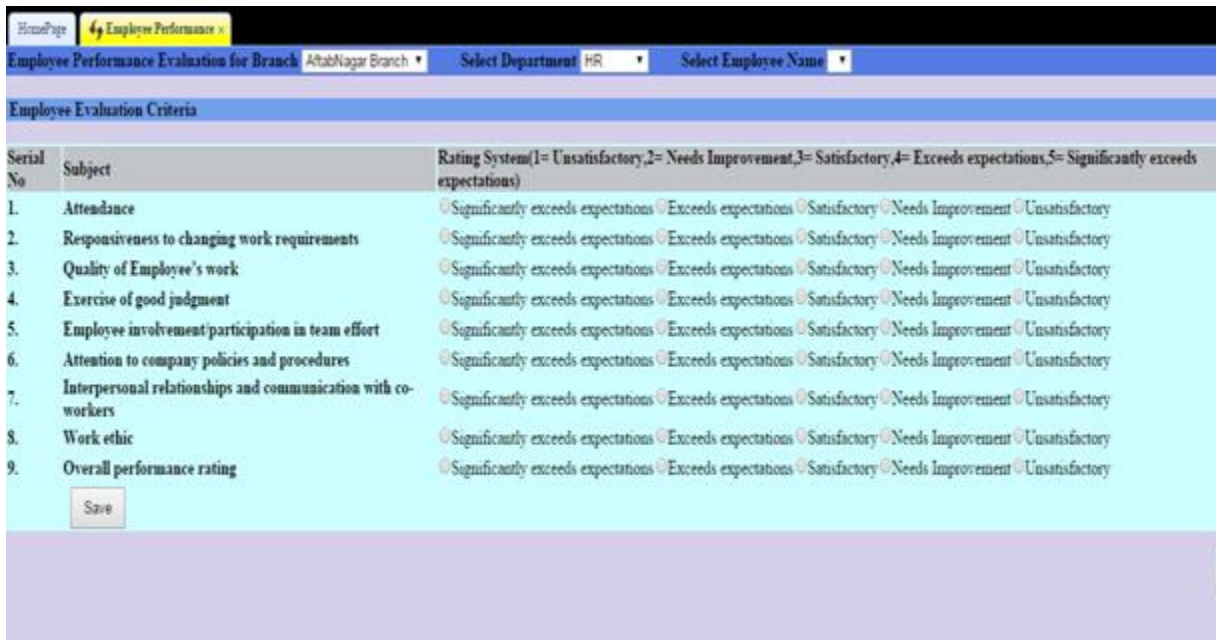
figure : 4.4.25 Leave Approval for department admin

Description:

In this page department admin can approve existing employee's leave application who are under his department .

4.4.26 Employee performance for department admin

The Employee performance page of the HRM solution is shown in figure



Description:

In this page admin can evaluate an employee of a selected branch and department by selecting evaluation criteria.

4.4.27 Performance report for department admin

The Performance report page of the HRM solution is shown in figure

Assessed By	Employee Name	Performance
Tarjil Alam	Rony	Exceeds expectations
Emu	Rony	Significantly exceeds expectations

Fig: 4.4.27 Performance report for department admin

Description:

In this page performance report of an employee of a selected branch and department is shown for department admin.

4.4.27.1 Employee Payroll for department admin:

Employee Name	Basic	House Rent	Medical	Convence	Phone	Gross Total	Bonus %
Tarjil Alam	20000	10000	1000	2000	1000	34000	50

fig 4.4.27.1 Employee Payroll for department admin

Description: Employee payroll information for department admin is shown in this page.

4.4.28 Main page Employee:

The main page for the employee of HRM solution is shown in figure

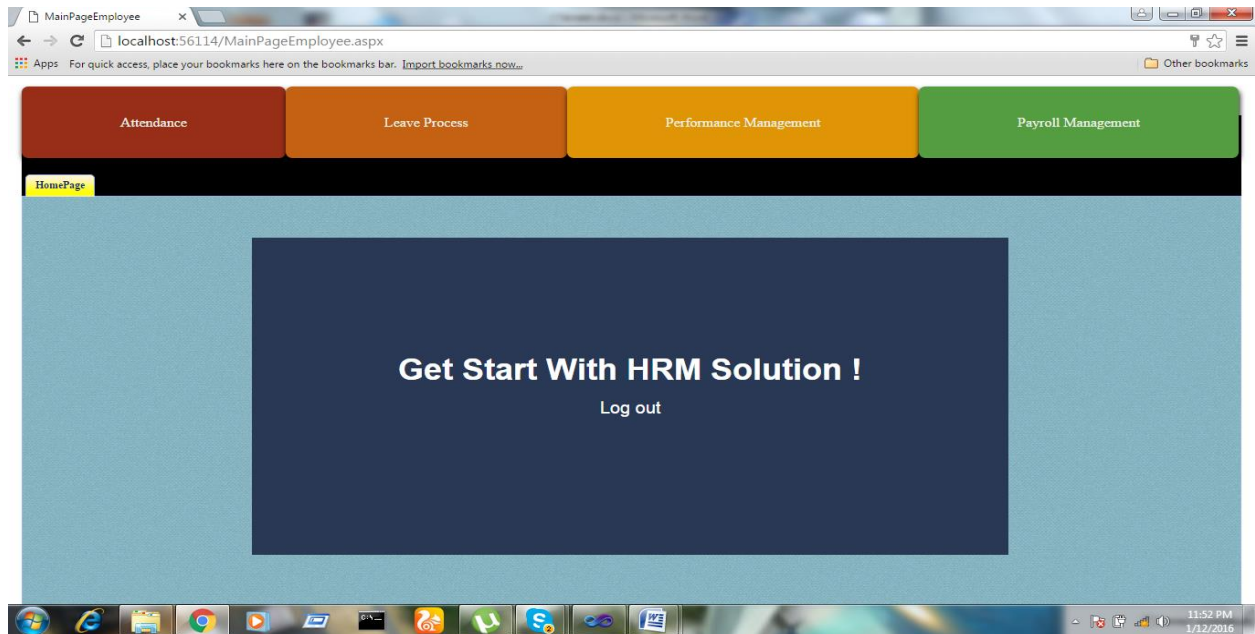


figure : 4.4.28 Main page Employee

Description:

This page is the main interface of the HRM solution. This page contains all the available sub-module and their available pages under those modules for employee.

4.4.29 Employee Attendance for employee

The Employee Attendance page of the HRM solution is shown in figure



figure : 4.4.29.1 Employee Attendance for employee

Description:

In this page new attendance can be submitted by employee.

Give Outdoor Attendance

Fill out the form below to login.

Employee User Name

Employee Pin

Location acquired, Submission authorized

submit

fig : 4.4.29.1 Outdoor Attendance for employee

Description:

The employee can also give outdoor attendance and this attendance is automatically collected with his current location by a web service.

4.4.30 Leave Application for employee

The Leave Application page of the HRM solution is shown in figure

HomePage **Leave Application**

Leave Application for Branch AftabNagar Branch Year 2016 Employee Tanjil Alam

General Leave:

Leave Type	Yearly Leave	Monthly Leave	Total Monthly Leave Due	Leave Sanctioned	Total Due Leave
Casual Leave	30	3	2	1	29
Medical Leave	30	30	30	0	30

General Leave:

Branch	Employee	Acting Person	Leave Type	From Date	To Date	Join Date	Duration
AftabNagar Branch	Mr. Tanjil Alam	Mr Emu	Casual Leave	09-Jan-16	09-Jan-16	10-Jan-16	1

New Leave Application

Leave Type : Casual Leave
 From Date : Click here
 Join Date : Click here
 Phone Number :
 Leave Purpose :
 Acting Person : Emu
 To Date : Click here
 Total Duration :
 Address :
 Save

Fig 4.4.30 : Leave Application for employee

Description:

In this page an employee can apply for leave by checking leave type, filling leave form and leave to , total duration , leave purpose , address , phone etc. Employees pending application is also shown in this page

4.4.31 Employee Payroll for employee

The Employee Payroll page of the HRM solution is shown in figure

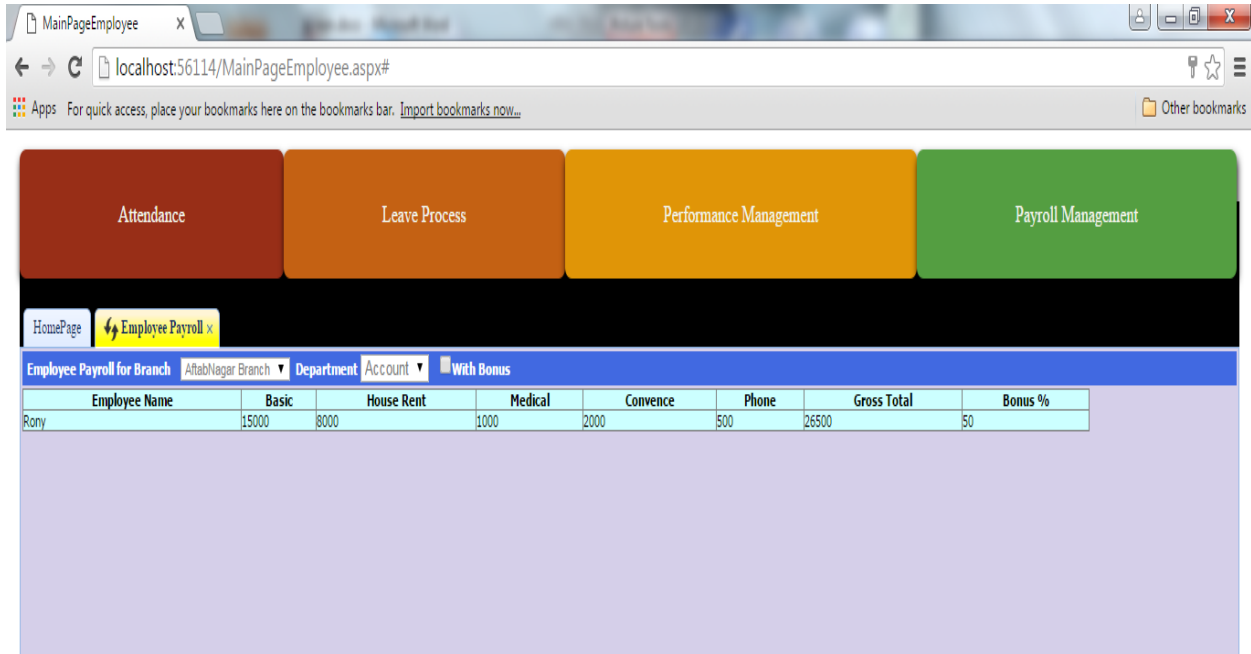


Fig 4.4.32 : employee payroll

Description: In this page an employee can see his payroll information.

4.4.31 Employee Performance for employee

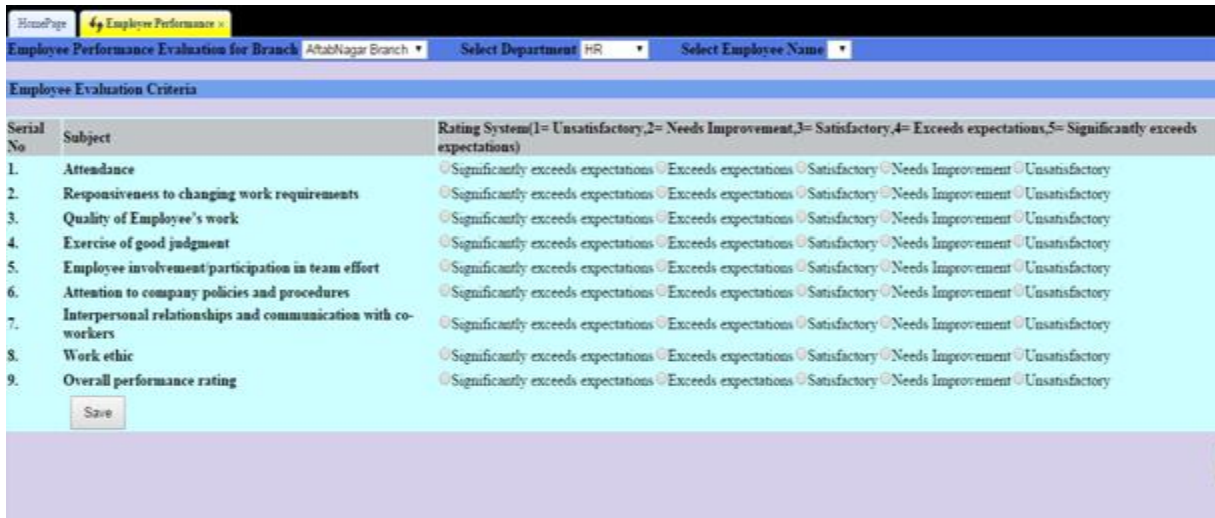


Fig 4.4.32 : employee performance evaluation

Description: In this page an employee can evaluate his performance.

Chapter 5

Conclusion and Future Work

5.1 Conclusion

Bangladesh is a developing country. Many new companies and existing companies are currently active. In our country every company need a HRM solution to manage their workforce. But the efficiency of their existing human resource management system is not properly done and sometimes they do not have a HRM system. And any new companies also need efficient HRM solution and so there is a huge demand for HRM solution in our country. Through the developed project any company can easily and efficiently manage their human resource. It is very helpful to manage all employees of the company and relate them with company policies. It is also useful for the employees to do their basic regular task such as attendance etc. This program helps to reduce the manual method and stress which is done by a person to manage human resource and that is time consuming and lengthy process. Nothing taste good than solving any problem from distance rather than rushing down to a specific point for the problem to be solved. With this solution company's information and employee's information are very efficiently stored in a secured database. By using this HRM solution any company can highly increase its productivity so that it can secure its position in now a day's competitive market.

5.2 Future Work

The future plan of this project is to improved design; implementation and documentation in such a way that anyone can use this project for better perform. We will develop this solution more dynamically. In future we will add the following module for better improvement of the project :

- Employee roster management.
- Employee training management.
- Detail and improved payroll system.
- Outdoor attendance with android application.

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