

**WOLAITA SODDO UNIVERSITY**

**COLLEGE OF NATURAL ANDCOMPUTATIONAL**

**SCIENCE**

**PROJECT TITLE:-**

**HUMAN RESOURCEMANAGEMENT SYSTEM**

**FOR SODO REFERRAL HOSPITAL**

**Group-2**

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**Abstract**

The main objective of this project is to develop a website that enables the Human resource management system for Soddo referral hospital office control, place, search, update, and the other activities of employee’s information in a simple and fast way. The implementation of our project, using PHP, MySQL, and HTML is in such a way that a server, in our case WAMP respond for any request from clients and then responds back to the user in faster and accurate way. The web site that we want to develop for Human resource management system for Soddo referral hospital is with simple graphical user interface, so that users can use and interact with the system in a simple way and user friendly manner. The group members initiated to do this project to implement what we have learned in the past four years and to solve the problem that we observed in Soddo referral hospital compound and HRM office of the hospital in dealing with the loss of information, security of information, and so on.

**Acknowledgement**

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ACRONOMY

HRM------------------------------------------Human Resource Management

HTML-----------------------------------------Hypertext Markup Language

PHP--------------------------------------------Hypertext pre Processor

SQL--------------------------------------------Structural Quire Language

CSS---------------------------------------------Cascade Style Sheet

WSU--------------------------------------------Wolaita Soddo University

SNNPR-----------------------------------------South Nation Nationality and Peoples Region

PC-----------------------------------------------Personal Computer

UML--------------------------------------------Unified Modeling Language

PIECES----------------------------------------Performance Information Economics

Control Efficiency and Service

BR-----------------------------------------------Business Rule

UC -----------------------------------------------Use Case

DVD---------------------------------------------Digital Versatile disk

# CHAPTER ONE: Introduction for whole project process

# Introduction

As there are many problems that human beings face throughout their life, it is obvious that we can use computer to solve many of the problems. When saying this, as the computer is the modern technology and problem solver. Nowadays sodo referral hospital human resource management use manual system and they are facing difficulty in their daily activities. So we can solve this problem by developing new system for Sodo referral hospital human resource management system. The proposal we have prepared is also the precondition for solving many of the problems of Human Resource Management System for Sodo referral hospital that is currently handled manually. Therefore, this work that is performed manually needs to be automated to reduce the problems happened.

The proposal includes the profile of the office and also the systems performances are described. In addition, the conditions like the problems in the office, our objective and scope of the project clearly specified .Finally, the tools and techniques we will use and the schedule is summarized as possible as to finish the project in the given time by using these methodologies.

# 1.2 Background of the organization

The Wolaita Sodo University Teaching Referral Hospital is established in 1920 E.C. It is located in southern nation and nationalities of peoples region in Wolaita zone, sodo town. Specifically, it is found in east direction to the sodo town. It is 160 km far from the Hawassa, SNNPR and 396km from Addis Ababa, Ethiopia with the former name of sodo zonal Hospital until June 30, 2004 E.C and hence then it was incorporated to Wolaita Sodo University and currently it is serving as Teaching center in addition to its curative and rehabilitative service.

It has much responsibility like keeping record of every employee and other workers, posting notice to absorb new employee, etc registering new employee, evaluation , placement, and update employee information are also included in their daily responsibility. That is the number of employees during its establishment was not as much the number of as current day employees. Therefore, keeping every record manually was not very difficult. However, currently, because of expansion of faculties, departments and other employees increased simultaneously. So, keeping every record manually became difficult and complex.

# 1.3 Current system description

The activities performed in the Personnel office and their functions include:

* Registering new employee
* Vacancy notice
* Describe the employee placement
* Modify employee information
* Evaluation

# 1.4 Problem Identification

The main problem of this office of Soddo referral hospital is dealing with their daily job manually. Doing manual has a side effect and has many problems throughout the work. For this reasons the problems that the office currently facing is:

* Difficulty of searching and modifying employee information if they need.
* Time consumption because of manual work for simple jobs.
* Mistakes happened since the work has done manually (lack of accuracy).
* Lack of reliability because of manual work.
* Since the work is done manually buying the paper, pen pencil and etc. needs more cost.
* There is redundancy of data
* Need large space to store file
* Human energy loss

# 1.5 Team Composition

The five members of the group will have the following responsibilities:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Project Title | Human Resource Management system for Soddo Referral hospital | | | | |
| Prepared By | S.No | Name | ID.No | Mobile | Responsibility |
| 1. | AlemayehuDemeke | 107/04 | 0937320005 | Programmer |
| 2. | AbiyotKefal | 055/04 | 0923533846 | webpage designer ,  Programmer |
| 3. | KidistWendemu | 675/04 | 0923836763 | system analysis,  webpage designer |
| 4. | Burkitu Elias | 322/04 | 0923442901 | system analysis |
| 5. | AlemtsehayBedasa | 118/04 | 0921609307 | system anlysis |
| Date | 15/03/2007E.C | | | | |
| Advisor | Instructor Fetenech Meskele(BSc) | | | | |

Table1: Team composition

# 1.6 Objectives

## 1.6.1 General objectives

The main objective of this project is to improve the Human Resource Management system for Sodo referral hospital by automating its existing system.

## 1.6.2 Specific objectives

To achieve the above aforementioned general objective, the project will also address the following specific objectives:

* More securing the system from current system.
* To reduce the number of employees involved in the record office
* To Minimize cost wasted for manual work like paper and pen
* To make Managing employees easier
* To Minimize data redundancy
* To simplify work
* Inserting, Deleting, Updating and Searching employees in the system.

# 1.7 Feasibility study

The feasibility study is an evaluation and analysis of the potential of the proposed project which is based on extensive investigation and research to support the process of decision making.

## 1.7.1 Operational /Organizational feasibility

We are sure that the system we develop will really solve the existing system problem. The system normally automates the existing processing system of hospital. Those employees have somewhat computer knowledge workers hence they can easily understand and use our system. Therefore, the system will be designed to be operationally feasible. In addition the system is practical and applicable.

## 1.7.2 Technically Feasibility

The system is technically feasible; this is in the sense that the project team contains enough number of manpower: programmers, testers & debuggers. The proposed platform has sufficient capacity for future needs. Customer easily develops, purchase, install, or operate the system by using technical resources. Because of our proposed system is highly user friendly, so that customers use our system without any difficulty.

## 1.7.3 Economic Feasibility

**Cost benefit analysis:** The system which we are going to develop will have economic benefit. Those economic benefit may be tangible or intangible

* + **Tangible benefit:** This means the concrete benefit that can be expressed in terms of dollars or birr. So the system proposed to develop will decrease a lot of birr that was expensive to buy the hard copy document material such as paper, pencil, rubber, and so on. Also reduce the loss of data that means if it reduces the loss of data it also reduces the cost of replacing the lost data. For example if the hospital have 1000 employees to handle these amount data there must be many people to manage the data and a lot of paper, pen ,and pencil will be bought. But after the system developed the data can be managed with one person and in one computer in very short time.
  + **Intangible benefit:** Those benefits that cannot be expressed in terms of birr or dollar. Intangible benefit that the system will give is the following:
* Give more readable, reliable and easily manageable.
* The proper and ordered files of employees which has stability means which is not easily lost.

# 1.8 Methodology for the project

Now days there are many tools and techniques available for developing software. But we are concerned on the programming courses and techniques we have learned.

## 1.8.1 Data collection methods

Data collection methods are the most important part of our project to find the main requirements of system and how to understand the system is does. To gather the information we use data collection methods that mentioned as following

1. **Interview**: To determine the objective and scope of the system we have interviewed the HRM officer and those responsible employees for handling HRM
2. **Analyzing existing document (forms and queries)**:In addition to the interview we have observed existing documents that include organizational rules form and queries for allocating and controlling resources used by the system.
3. **Observing the working environment**: Finally we have observed the working environment to assure those requests gathered using the interview and existing document stated above.

## 1.8.2 Tools uses in Analysis and design of the system

After collecting data about the existing system of Soddo referral hospital HRM office, we use the following tools to analyses and design the new system.

**Project management methodology**: we use water fall methodology to manage our project because there are different advantages:

**Advantage of the waterfall method**

* Design errors are captured before any software is written saving time during the implementation phase.
* Excellent technical documentation is part of the deliverables and it is easier for new programmers to get up to speed during the maintenance phase.
* The approach is very structured and it is easier to measure progress by reference to clearly defined milestones.
* Testing is easier as it can be done by reference to the scenarios defined in the functional specification.

## 1.8.3 Hardware Requirements

Computer with 2.00 GB RAM, 465GB hard disk, Intel(R) core (TM) i3-3220 CPU 3.30GHz, system type 32 bit operating system.

## 1.8.4 Software development tools

|  |  |
| --- | --- |
| **Activities** | **Tools** |
| Client side code | HTML and CSS |
| Validate data | JavaScript |
| Database Server | Mysql |
| Server side script | PHP |
| Server | WAMP server |
| Documentation | Microsoft word,Microsoft powerpoint 2010 |
| Browsers | Mozilla Firefox 3.0,IE 5.5/6.0/7.0 |
| UML | Rational rose, Visio 2013,edraw |

Table2: Software development tools

# 1.9 Scope of the project

This project focuses on Human Resource Management system for Sodo referral hospital particularly on:

* Registering new Employee
* Updating Employee information
* Search employee information
* Generate reports
* Employee placement

# 1.10 Limitation of the project

Even though, this project is focus on Soddo referral hospital Human Resource Management System, it doesn’t include payroll system and other system which has relationship in Human Resource Management system.

# 1.11 Schedule

Anything that is done without plan and schedule is like the person that his eyes cannot see (blind). Therefore, the schedule is the eye of any project.

To finish our project in time we have planned it as follows.



# 1.12 Cost of the project

The project we are planning to do needs some software and hard ware. And also require other material such as paper, pen, pencil that are used when gathering the information, design our system manually and so on.

Generally, we can express in the following table.

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Quantity | Unit cost per item(birr) | Total cost(birr) |
| Printing | 220 paper | 2 | 440.00 |
| Paper | 1 mass | 110 | 110.00 |
| Pen | 10 | 5 | 50.00 |
| Mobile card |  | 10 | 200.00 |
| CD(RW) | 5 | 25 | 125.00 |
| Transport |  |  | 200.00 |
| Contingency |  |  | 250.00 |
| Total |  |  | 1375.00 |

Table3: Cost of project table

# 1.13 Risk analysis

While we are doing this project we encounter different problems.

|  |  |  |
| --- | --- | --- |
| # | Risk | Actions |
| 1 | Computer viruses, computer  failures | Backup the file, scanning with anti viruses and recovering the system. |
| 2 | Time When power and Computer lab is not available | Working when the power and computer lab is available, and using our time effectively. |

Table: Risk analysis table

# 1.14 Advantages of proposed system

* Very fast and accurate.
* No need of any extra manual effort.
* No fever of data loss.
* Just need a little knowledge to operate the system.
* Doesn’t require any extra hardware device.
* At last very easy to find the employees.

# CHAPTER TWO: Description of the existing system

# 2.1 Introduction of existing system

Describing and modeling the major functions of the existing system to identify problems in the existing system, to provide alternative solutions for the problem identified, to select the feasible solution among the alternative solution and finally to decide the functional requirements of the proposed new system. This chapter presents the description of the existing employee record system of sodo referral hospital HRM. It presents the major functions of the existing system, documents, forms and business rules used and reports generated by the current employee record. In addition, it presents problems faced in the existing system, good practices to be preserved and the players in the existing system. Alternative solutions to address the problem in the existing system, with options analysis, are also part of the things discussed in this chapter.

# 2.2 Actors in the existing system

An actor represents anything that needs to interact with the system to exchange information. An actor is a user, a role, which could be an external system as well as a person. An actor initiates the system activity, a use case, for the purpose of completing the some business task.

|  |  |
| --- | --- |
| Actor Name | Section/Dept.head |
| Use case: | * person who have full privilege on the system * Preparing and write a requisition letter when there is a vacant position * Accept and assign the employee to the vacant position |

|  |  |
| --- | --- |
| Actor name | Personnel officer |
| Use case | * Reports Requesting/save /recording the information * Monitoring the overall activity of the system like save records, delete records, Updates, etc of record in the database * Employee who register new employee information. |
| Actor name | Data clerk: |
| Use case | * person who records information, write letters. |

#### Table 2.1: Work flow of employee registration

# 2.3 Major Function of the Existing system with clear input, process and output

The major and fundamental functions of the existing HRM system of sodo referral hospital are the following:

* Employee registration:-Registering the new Employee to make the member of the hospital and specifically in which department he or she works in.
* Update employees’ information:- the administrator updates every employees information as per new data.
* Search employee information:- It is done when the employee needs to get his /her fileor information.
* Generate reports:-when necessary information is gathered from different departments.

**New employee registration**

Registration of a new Employee manually is the major function of the existing system of HRM office. It is done when new employee join the hospital after the required evaluation criteria and procedures. The work is done by the personnel officer.

**Work flow of Employee registration**

Having finished and passed the evaluation procedure; the new employee comes to the office and take the new employee registration form and fills necessary information.

* Employee passes the criteria.
* Personnel officer give the new employee registration form for employee.
* Employee fills necessary information on the form.
* Then the form is checked and submitted to the HRM office document manually.
* Then the personnel officer prepares ID and Letters that signifies the employee already member.
* The work flow ends when employee takes his/her ID.

Using table:

|  |  |
| --- | --- |
| Employee record | |
| The office performs new Employee registration process by checking the Employee information based on the specification of organization standard criteria and record Employee. | |
| Input | Employee Registration form.  Necessarily information about the employee. |
| Process | The Personnel officer will screen the document based on the criteria of organization.  Personnel officer fill employee record form and submit to the office document.  Personnel officer prepares Id number for employee. |
| Output | Employee issued id number.  Employee recorded. |

#### Table 2.2: work flow of employee registration

**Update Employees information**

Whenever employees acquire new skills or certificates the profile need to be changed based on the employee credentials/ID, the administrator updates every employees information as per new data.

**Work flow to update employee’s record**

* Work flow starts if employee information is changed. For example his salary, year or service, age, education level and so on;
* The administrator search for employees documents and update it.
* Work flow ends after employee information is updated.

Using table:

|  |  |
| --- | --- |
| Update employee record | |
| The HRMS office information sector always records the employee’s information whenever the employee information modified. | |
| Input | Employee files from different body. |
| Process | HRMS office information sector updates the employee information takes from different reports. |
| Output | Employee information is updated. |

#### Table 2.3: Work flow of employee registration

**Search employee information**

Searching employee information is done when the employee needs to get his/her file, and also when the office needs to look at employee’s information for various purposes.

**Work flow to Search employee information**

|  |  |
| --- | --- |
| Search employee information | |
| Input | Searching employee information |
| process | finding employee file from different document |
| Output | Employee information |

#### Table 2.4: work flow to search employee information

**Generate reports**

This process starts when necessary information is gathered from different departments. The HRM office is responsible to generate the reports about the employee daily, monthly, annually.

**Work flow to reports**

* Work flow starts by collecting different information from different departments.
* Then the office generates different reports such as employee skill, employee placement and employee registration and so on.
* Work flow ends after generating necessary reports.

Using table:

|  |  |
| --- | --- |
| Preparing general report | |
| The operation division prepares different level of report for operation manager. | |
| Input | Employee file |
| Process | Prepare different level of report based on Employee file that is already stored in the office then send to different body per month and annual. |
| Output | General report. |

#### Table 2.5: work flow to generate reports

# 2.4 Reports Generated in the existing system

Different reports are generated in the existing HRM system of sodo referral hospital. Reports are generated based on the general information about an Employee in the hospital. This report helps the finance department in predicting budget needed for the coming years and months, helps the Departments to ask for additional employee and so on. Other types of reports are prepared monthly depending on Registered Employee per month and annually. Reports and summaries are the fundamentals of any business organization. They tell how the business is running at any given time with specified quires of the party that require those reports and summaries.

The following are the reports and summaries generated in Sodo referral hospital HRM system

* **Annual Report new employee registration employee skill:**

Annually generated report on Employees summarizes all Employees information of the hospital. This report is organized by the administrator of HRM Office collecting the necessary information from the Department and from the employee’s files.

* **Monthly Report placement:**

This report specifies the placement of each employee monthly report.

* **Daily Report on placement**

Every employee in the University Fill the placement form .This is used to generate the placement report for each employee. Then HRM can get daily employee report from their department.

# 2.5 Business rules

The system of sodo referral hospital governs and controls the work flow through HRM the following business rules.

**BR1:** Employees evaluation (day of presence and absence) must be approved by department head.

**BR2:** Each Employee must have a unique ID.

**BR3:** When employees are leaving the hospital by any means, they have to handover the hospital resources or duties the respond the resource in proper manner.

**BR4:** Reports must be prepared and generated within a specified schedule.

**BR5:** Whenever the Employee is absent from his/her job his/her compensation must be reduced, if he/she have no permission from department head.

**BR6:** When Employees are reregistered again by any means, the staff must fill employee description in the employee registration form and update the employee data base.

**BR7:** Whenever new Employee category is received, a new Registration form must be prepared.

**BR8:** Every department requesting Employee must be eligible (legal) known in the hospital.

# 2.6 Forms and other documents of the existing system

In any business documents and forms are the fundamental for the existence of different process. The existing employee ordering system of sodo referral hospital HRM uses the following forms and documents.

**Employee registration forms**

Employee Name Frist ----------------- Middle ----------------- Last--------------------

Birth Date day, month, Year-------------------------- Place of birth--------------------

Region------------- Zone------------------ Woreda-------------------

Nation/nationality---------------------------------------

Nationality----------------------------------- Sex---------------------

Address Region---------- City------------ Zone------------- Woreda------------ Kebele----------

Phone No.----------------- House No.----------------------

Marital statusmarried------------ single---------- divorced --------------------

In case of emergency Full name----------------------------------- Region---------------- Zone-----------

Woreda-----------------Kebele----------------- phone number--------------------

Educational status---------------------Special skill------------------------- Experience------------------------

EMPID----------------------------- Experience--------------------------------------------------------------

Date of employment---------------------------------- Type of employee-------------------------------

Acknowledgment and rewards (if any) --------------------

Assurance of employeeNameand Signature-------------------- job position--------------- date---------------

Assurance officer name---------------signature----------------job position---------------date------------------

# 2.7 Bottlenecks of the existing system

The PIECES frame work was used to identify the problems in the existing manual HRM system of sodo referral hospital. The problems identified are presented below:-

## 2.7.1 Performance related problem

Performance related problem can be measured using two broad categories of Performance measurement.

1. **Throughput**

Modifying employee information: - since the documents of employee are written manually to modify their information the documents must be changed and there is no any searching method, so to find each document it needs more time.

**Registering the employee’s**: since the registration is done manually, registering the employee specially when there are a lot of employees are difficult. Registering an Employee also involves some redundant and bulk item information to be processed.

**Generate Report**: the task of report generating takes much time of the office, since it requires summarizing bulk data.

**B) Response Time**: It is easy to predict the response time of each process based on the detailed description of the major functions of the existing system such as generating summarized report, updating the employee’s information and so on.

## 2.7.2 Information related problem

Information related problems can be measured with respect to input and output information of the existing system.

### 2.7.2.1 Output related problems:

* Lack of relevant information in annual reports generated by the HRM system such as errors in calculating Employee compensation amount during the preparation of annual and monthly reports. This leads to incorrect reports for the Manger and Finance department.
* No standard method of generating reports.

### 2.7.2.2 Input retaliated Problem:

All information that must be captured in the current HRM system is still performed manually which threat human error may occur, and also redundant data when input the information.

## 2.7.3 Control and Security problem:

* Due to little security control unauthorized workers are capable to access information.
* Due to information that is not in use full format the current system handles all the Employee related records in fill cabinet which means regularly all employees have access to records.

## 2.7.4 Efficiency related problem:

* Employees waste their time due to redundantly input data’s when registering new employees and generating reports.
* The use of several forms and copies in the record keeping will suffer additional material cost.

# 2.8 Good Practices to be preserved from the existing system

Even if the existing HRM of sodo referral hospital is working manually. The following outlined to be preserved in the automated system.

* For individual Employee there is a unique ID number.
* Using the Employee registration form when employee registered.
* Generating report periodically on employees’ information such as evaluation.
* All forms and documents mentioned above must be used.
* Using Employee information document (files), which makes managing Employee simple and easy.
* Information that is too sensitive has to be kept in hard copy.
* All information is secured.

# 2.9 Requirements of the Proposed System

In many organizations, services and tasks the system required to perform can be categorized in to Functional and Non-Functional requirements.

## 2.9.1 Functional requirements

Functional requirement are things the system perform by any means of achieve the intended objective. Therefore the following functional requirements are stated for the new automated system.

* Registering the new employee in the hospital.
* Produce report based on the employee’s database.
* Managing the Employees information efficiently.
* Authorizes the administrator to control data access by the user.
* Search an Employee by Employee ID.
* Update, save the employee’s information if necessary.
* Delete unnecessary or out of date information.
* Describe the employee placement.
* Vacancy announcement.

## 2.9.2 Non-functional requirements

Non-functional requirements are requirement, which has not essential for the system, but it can support and give more quality for the system.

### 2.9.2.1 Performance requirements

The system users do not need to wait for a long time for the transaction of information. There is also an admin panel to manage and control the system.

### 2.9.2.2 Users interface requirement

These requirements include the qualities of the system that are desirable from the end-user’s point of view. The new system will use windows type graphical user interface. This type of interface is chosen as it typically involves very little additional training and common to most computer users. This will enable the users to use the system, and support their work by providing a simple and easily assessable menu driven forms and user interface controls.

Generally, user interface system should

* User interface should be menu driven and attractive.
* The system should support error-handling mechanism that display alert message and the system guide the user what will be the next action.

### 2.9.2.3 Security and accesses permission

The system administrator gives privileges to employee and personnel officer. Only the employee and personnel officer who have grant can login the system. So, the system must be secured with user account and password.

### 2.9.2.4 Backup and Recovery

**Backups**:- Backups are useful primarily for two purposes. The first is to restore a state following a disaster (called [disaster recovery](http://en.wikipedia.org/wiki/Disaster_recovery)). The second is to restore small numbers of files after they have been accidentally deleted or corrupted. Data loss is also very common. 66% of internet users have suffered from serious data loss. The system should be holding a backup of the data by using different storage devices. Some of them are Flash Memory, DVD Backup, Tape Backup, Hard Drives and A drive.

**Recovery:-** Data recovery is the process of restoring data that has been lost, accidentally deleted, corrupted or made inaccessible for some reason. Data recover by using system recovery and any software like restoration, wise data recovery, recuva software.

# CHAPTER THREE: System Analysis

# 3.1 Introduction

Studying the existing system brings about an important contribution to the entire development process. It is only after doing this phase that we can realize what is going wrong, what to change, what activity or practice to encourage, and what alternative solution to propose.

# 3.2 System Requirement Specification (SRS)

## 3.2.1 Use case diagrams

Use case diagrams are used to depict graphically the interactions between the system and external system and users. In other words, they graphically describe who will use the system and in what ways the user expects to textually describe the sequence of steps of each interaction.



#### Fig 3.1: Essential existing system use case diagram



#### Fig 3.2: Essential proposed Use case diagram

3.2.2 Use case documentation

**1. Use case Name: Login**

|  |  |
| --- | --- |
| Identifier | UC1 |
| Description | Validates the user to enter to the system. |
| Actor | Administrator and Personnel officer |
| Pre- condition: | The user must have valid user name and password. |
| Basic courses of action | 1. The user wishes to enter to the system.  2. The system displays the login dialog box.  3. The user fills and submits the username and password.  4. The system checks the login information.  5. The system displays Main Form if login is valid.  6. Use case ends |
| Alternate action | The entered username and/or password are not correct.  1. The system determines the invalidity of username and/or password  2. The system determines invalidity to enter into the system.  3. The system informs the user to reenter username and/or password  4. The use case resumes at step 3 of flow of events.  5. Use case ends. |
| Post condition: | The users logs in to the system. |

#### Table 3.1: Use case to login

**2. Use case Name: New employee registration**

|  |  |
| --- | --- |
| Identifier | UC2 |
| Description | Registers new Employee. |
| Actor | Personnel officer |
| Pre- condition: | The employee must fulfill the required quality and pass the qualification test given by the HRM system office. |
| Basic courses of action | 1. Employee passes the criteria and wants to register.  2. The Personnel officer enters to the system.  3. The Personnel officer selects new employee Registration form the menu.  4. The system registers the employee.  5. The officer assigns ID number.  6. The use case ends. |
| Alternate actions | 1. Invalid data registration. 2. Return to step 4 of flow of events. 3. Use case ends. |
| Post condition: | Employee’s record registered. The officer assigns id number. |

#### Table 3.2: Use case to new employee registration

**3. Use case Name: Manage system**

|  |  |
| --- | --- |
| Identifier | UC3 |
| Description | Create, delete, and update user account. |
| Actor | Administrator |
| Pre- condition: | Administrative privileges |
| Basic courses of action | 1. From the main form the users select account form 2. The system display user account form. 3. The system checks confirmation of password. 4. Administrator creates, delete and update user account. 5. The system will register the user account. 6. The system display message completed successfully. 7. End of use case |
| Alternate actions | 1. If the password is not confirmed. 2. Return to step 2 of flow of events.. 3. Use case ends. |
| Post condition | User gates his/her own account. |

#### Table 3.3: Use case to manage system

**4. Use case Name: Employee Placement**

|  |  |
| --- | --- |
| Identifier | UC4 |
| Description | Employee placement |
| Actor | Administrator |
| Pre- condition: | Have administrative privileges. |
| Basic courses of action | 1. From the main form the users select account form  2. The system display user account form.  3. Administrator creates or modifies user account.  4. The system checks confirmation of password.  5. The system will register the user account.  6.The system display message completed successfully.  7. End of use case. |
| Alternate actions | 1. If the password is not confirmed.  2. Return to step 3 of flow of events.  3. Use case ends. |
| Post condition | User gates his/her own account. |

#### Table 3.4: Use case to employee placement

**5. Use Case Name:Update employee information**

|  |  |
| --- | --- |
| Identifier | UC5 |
| Description | Update employee information when needed. |
| Actor | Personnel officer |
| Pre- condition: | Employee record must exist. |
| Basic courses of action | 1. The user selects update employee information from Main Form. 2. The system displays updates employee information form. 3. Use case ends. |
| Alternate actions | 1. If the information already does not exist. 2. Resume step 2 of above. 3. Use case ends. |
| Post condition | The employee information updated. |

#### Table 3.5: Use case to update employee information

**6. Use Case Name: Generate report**

|  |  |
| --- | --- |
| Identifier | UC6 |
| Description | Generate a report specified. |
| Actor | Personnel officer |
| Pre- condition: | Request general report |
| Basic courses of action | 1. From Main Form personnel officer select report submenu. 2. The system display general report. 3. Then selects report type: placement report, skill report employee registration 4. The system prepares report. 5. The system displays report. 6. End of use case. |
| Alternate actions | 1. The entered username and/or password are not correct. 2. The system determines the invalidity of username and/or password. 3. The system determines invalidity to enter to the system. 4. The system informs the user to reenter username and/or password. 5. The use case resumes at step 3 of flow of events. 6. Use case ends. |
| Post condition | Report is generated. |

#### Table 3.6: Use case to generate reports

**7.Use Case Name: Search employee information**

|  |  |
| --- | --- |
| Identifier | UC7 |
| Description | Search employee information. |
| Actor | Administrator and Personnel Officer |
| Pre- condition: | Request employee ID. |
| Basic courses of action | 1. From Main Form user select search form. 2. The system display search form. 3. Then user type employee ID. 4. The system prepares the search result. 5. The system displays employee Info. 6. End of use case. |
| Alternate actions | 1. The entered Employee ID is not correct. 2. The system determines the invalidity of Employee ID. 3. The system informs the user to reenter correct Employee ID. 4. The use case resumes at step 3 of flow of events. 5. Use case ends. |
| Post condition | Employee update |

#### Table 3.7: Use case to search employee information

**8. Use Case Name:Delete employee information**

|  |  |
| --- | --- |
| Identifier | UC8 |
| Description | search and delete the employee detail Information |
| Actor | Personnel Officer |
| Pre- condition: | Request employee ID. |
| Basic courses of action | 1. From Main Form personnel officer select delete form. 2. The system displays delete form. 3. Then user type employee ID. 4. Then click delete button. 5. System asks that the personnel officer is sure about what he was doing. 6. The system delete employee Info. 7. End of use case. |
| Alternate actions | 1. . The entered Employee ID is not correct. 2. The system determines the invalidity of Employee ID. 3. The system informs the user to reenter correct Employee ID. 4. The use case resumes at step 3 of flow of events. 5. Use case ends. |
| Post condition | Employee file is deleted. |

#### Table 3.8: Use case to delete employee information

**9.Use Case Name: Modify vacancy announcement**

|  |  |
| --- | --- |
| Identifier | UC9 |
| Description | Announcing the vacancy of the office or organization. |
| Actor | Personnel Officer |
| Pre- condition: | The organization vacancy |
| Includes | HRM office |

#### Table 3.9: Use case to modify vacancy announcement

**10.Use Case Name: Delete employee account**

|  |  |
| --- | --- |
| Identifier | UC10 |
| Description | Remove user account.. |
| Actor | Administrator |
| Pre- condition: | Have administrative privileges. |
| Basic courses of action | 1. From the main form the users select account form 2. The system display user account form. 3. User creates or modifies user account. 4. The system checks confirmation of password. 5. The system will register the user account. 6. The system display message completed successfully. 7. End of use case. |
| Alternate actions | 1. If the password is not confirmed. 2. Return to step 3 of flow of events. 3. Use case ends. |
| Post condition | User gates his/her own accounts. |

#### Table 3.10: Use case to delete employee account

3.2.3 Sequence diagram

Sequence diagrams are used to depict graphically how objects interact with each other via messages in the execution of a use case or operation. They illustrate how the messages are sent and received between objects and in what sequence.



#### Fig3.3 sequence diagram of new employee registration



#### Fig3.4 sequence diagram of login



#### Fig3.5 sequence diagram of employee placement



#### Fig3.6 sequence diagram of search employee information



#### Fig3.7 sequence diagram of delete employee information



#### Fig3.8 sequence diagram of vacancy announcement



#### Fig3.9 sequence diagram of generate report



#### Fig3.10 sequence diagram of manage system

3.2.4 Activity Diagram

Activity Diagrams are used to Document the logic of a single operation /methods, a single use case, or the flow of logic of a business operation. In many ways, Activity Diagrams are the object\_ oriented Equivalent of flow charts and Data Flow Diagrams (DFD) from Structure.



#### Fig 3.12 Activity diagram forlogin



#### Fig 3.13 Activity diagram fornew employee registration



#### Fig 3.14Activity diagram foremployee placement

****

#### Fig 3.15Activity diagram for generate report

****

#### Fig 3.16Activity diagram for search employee information



#### Fig 3.17Activity diagram for modify vacancy announcement



#### Fig 3.18Activity diagram for manage the system

3.2.5 Analysis level class diagram (conceptual modeling)

Class diagrams are typically used, although not all at once, to:

* Explore domain concepts in the form of a domain model
* Analyze requirements in the form of a conceptual/analysis model
* Depict the detailed design.



#### Fig 3.19Analysis level class diagram

3.2.6 User Interface Prototyping

User interface prototype is to indicate the surface that can be used by user and the system to communicate to each other, but, not actual work area. Here the prototype of applicant registration form and employee search detail is listed.



#### Fig3.20 system flow of administrator

Fig3.21 system flow of personnel officer

****

#### Fig 3.22 System flow of employee

# CHAPTER FOUR: System design

## 4.1 Introduction

System design has a great part which describes the first solution of the system problem. So designing a system is the important and necessary step in any computer system. System design provides a clear description of the overall design of the Sodo referral hospital HRMS and bridging the gap between desired and existing system in a manageable way.

The internal part of this system design document is organized as: class type architecture, class modeling, class diagram, component diagram, State chart modeling, User Interface design.

## Class type architecture

|  |  |
| --- | --- |
| Layer | Description |
| Interface | This layer wraps access to the logic of our system.  There are two categories of interface class – user interface (UI) classes that provide people access to our system and system interface (SI) classes that provide access to external systems to our system. In our system there is one main home page interface that enables people enter (login) to the system and large number of user inter faces to work (communicate) each other and with other layers. Some UI like homepage, login, registration interface |
| Process | The process or controller layer implements business logic that involves collaborating with several domain classes or even other process classes.  In this layer our system has one domain that implements the logic of our system. Login control what interface user must get based on account. |
| Domain | This layer implements the concepts relevant to our business domain focuses on the data aspects of the business objects plus Behaviors specific to individual objects. And implements the concept related to the business domain focusing on the data aspects of the business.  In this layer our system has n such domain classes that are concerned with data are the following.   * Employee Detail information * Employee account |
| Persistence | Persistence layers encapsulate the capability to store, retrieve, and delete objects/data permanently without revealing details of the underlying storage technology in the system. Often implement between object schema and database schema and there are various available to us. |
| System | System classes provide operating-system-specific functionality for our applications, isolating our software from the operating system by wrapping OS-specific features, increasing the portability of your application  In this project we have used MS –WINDOWS 7, platform on the each client side, PHP and on the server side we have used wamp or xamp server |

#### Table 4.1:Class type architecture

Process

(Controller)

User interface

Persistence

(Data)

Domain

(Business)

Data base

System

(Infrastructure, platform)

#### Fig 4.1: class type architecture

## Class modeling

Class models shows the classes of the system, their Interrelationship (including inheritance, aggregation, and association), and the operations and attributes of the classes.



#### Fig 4.2: class modeling

## 

## 4.4 State chart modeling

State chart diagram is used for modeling the dynamic aspects of systems. It is similar to activity diagram. Both activity and state chart diagrams are useful in modeling the lifetime of an object. However, activity diagram shows flow of control from activity to activity;where as state chart diagram shows flow of control from state to state. State chart modeling is a dynamic modeling technique, one that focuses on identifying the behavior within our system, behavior specified to the instances of a single class. It tries to show different state that an object passes through its life span. However, it is not necessary to build state chart for every class in the system; only state charts of complex objects are necessary to be modeled. State chart diagram enables us to observe the state of complex that simplifies implementation.



#### Fig 4.3: state chart diagrams for new employee register



#### Fig 4.5: State chart diagram for Login

## 4.5 Collaboration modeling

A collaboration diagram describes interactions among objects in terms of sequenced messages. Collaboration diagrams represent a combination of information taken from class, sequence, and use case diagrams describing both the static structure and dynamic behavior of a system.

* The rectangle represent the various objects involves that make up the application,
* The line between the classes represents the relationships (association, aggregation, composition, dependencies, or inheritance)



#### Fig 4.6: collaboration model for login



#### Fig 4.7: collaboration model for employee register

## 4.6 Component modeling

A component diagram describes the organization of the physical components in a system.Components are modeled as rectangles with two smaller rectangles jutting out from the left hand side. Components have dependencies on the interface of other components.



#### Fig 4.8 component modeling diagram

## 4.7 Deployment modeling

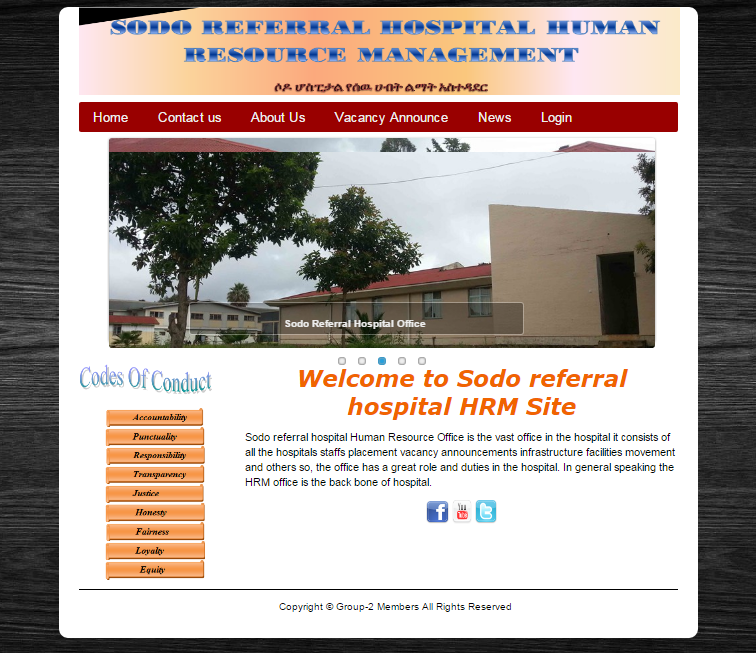
It describes the physical architecture of the hardware and software in the system. They depict the software components, processors, and devices that make up the system’s architecture.

* The hardware for the system
* The software that is installed on the hardware
* Depict the hardware/network infrastructure of an organization.
* Depict a major deployment configuration of a business application.

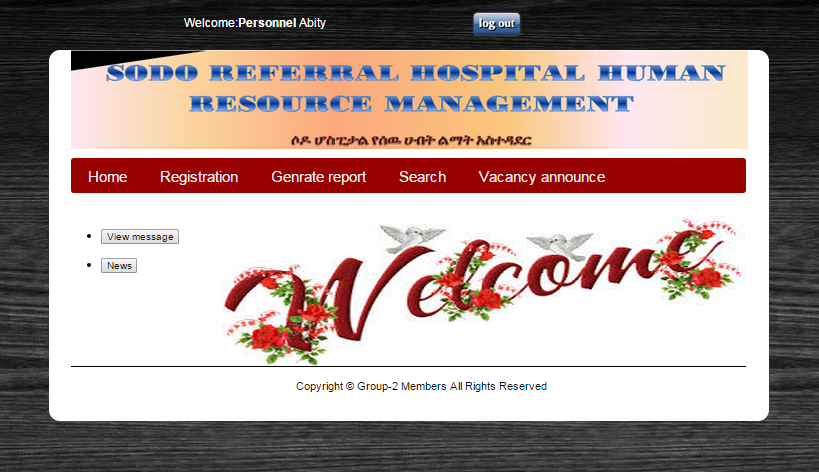


#### Fig 4.9: deployment modeling

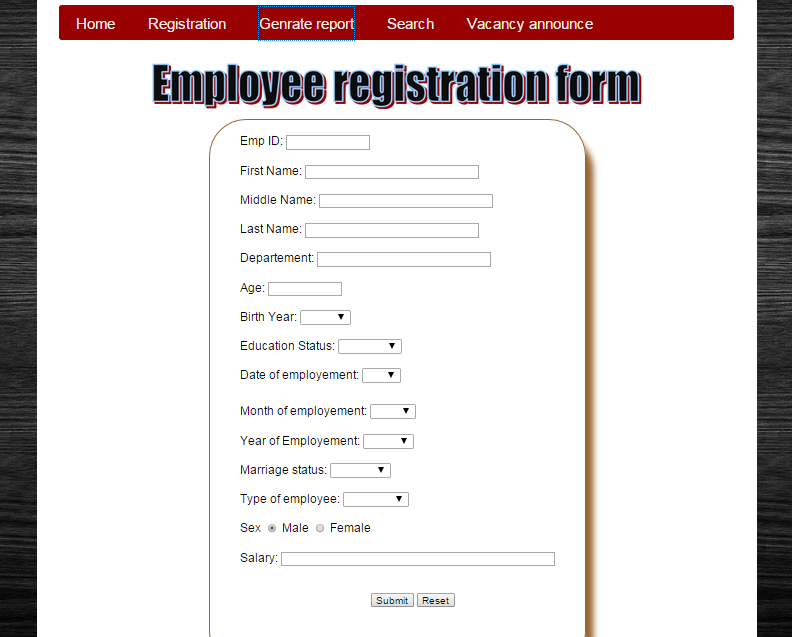
## 4.8 User Interface design



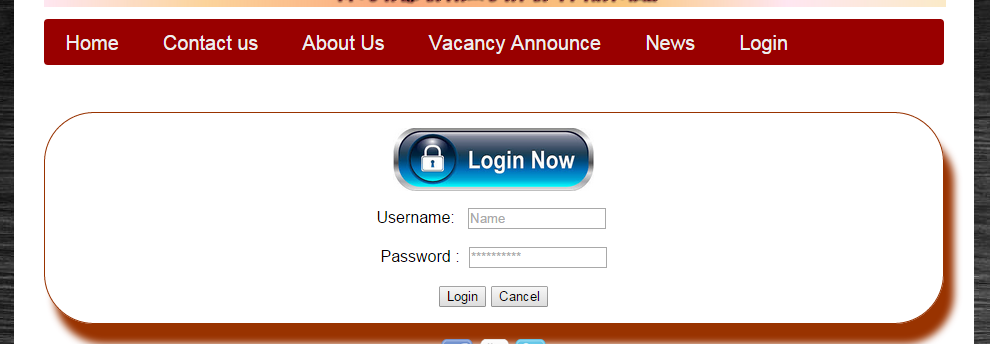
#### Fig 4.11 User interface for home page



#### Fig 4.12 Personnel officer User Interface design



#### Fig 4.13 User interface for registration form



#### Fig 4.14 login form

# Chapter Five : Implementation and Testing

## 5.1 Introduction

In this chapter we mainly focuses on the implementation part, implementation concerned with the type of material (Hardware and software required), techniques to develop the system, algorithm for the system, code samples of the system, data preparation, how to install the system, some testing techniques, start up strategy for the new installed system are briefly described in this part of documentation.

## 5.2 Algorithm design and coding

### 5.2.1Algorithm design

**Algorithm for authentication**

Function Authentication (Username, password, type)

If password length=0

Display error message “Pass word required”

Return

Pass=Retrieve Password (Username)

If password! =pass

Display error message “Incorrect password”

Return

Type=Check Type (type)

If type=Administrator

Display Administrator page

Else if type=personnel officer

Display personnel officer page

Else if type=employee

Display employee page

//end of the function authentication

**Algorithm for checking whether the field is empty or not**

Function chkempty(obj)

If obj=’ ‘

Display error Message “The field should not be Empty”

Return true

Else

Return false

**Algorithm for checking whether the field takes only Numbers or not**

Function Contain Character (string)

If string contain [a-z A- Z]

Display error message “These Field Must be a character”

Return true

Else

Return false

//End of Function contain character.

**Algorithm for checking whether the field takes only Characters or not**

Function containNumber(string)

If string contain[0-9]

Display error message “This string contain Numeric Value”

Return true

Else

Return false

//End of Function contains Number.

### 5.2.2Coding

**Code for employee registration**

<form action="perRegi.php" method="post" name="demo" onSubmit="return validateFormOnSubmit(this)">

<ul>

<p>

<label for="userid">Emp ID:</label>

<input type="text" name="userid" size="12" onBlur="userid\_validation(5,12)"/>

</br>

</p>

<p>

<label for="fname">First Name:</label>

<input type="text" name="fname" size="30" onBlur="allLetter()"/></br>

</p>

<p>

<label for="sname">Middle Name:</label>

<input type="text" name="mname" size="30" onBlur="allLetter1()"/>

</br>

</p>

<p>

<label for="lname">Last Name:</label>

<input type="text" name="lname" size="30" onBlur="allLetter2()"/>

</br>

</p>

<p>

<label for="dep">

Departement:</label>

<input type="text" name="dep" size="30" onBlur="allLetter3()"/>

</br>

</p>

<p>

<label for="age">Age:</label>

<input type="text" name="age" size="10" onBlur="allLetter4()"/>

</br>

</p>

<p>

<label> Birth Year: </label>

<select name="year" onBlur="statusselect()">

<option></option><option >2015</option><option >2014</option><option >2013</option><option >2012</option><option >2011</option><option >2010</option><option >2009</option><option >2008</option>

<option >2007</option><option >2006</option><option >2005</option><option >2004</option><option >2003</option><option >2002</option><option >2001</option><option >2000</option><option >1999</option><option >1998</option><option >1997</option><option >1996</option><option >1995</option><option >1994</option><option >1993</option><option >1992</option><option >1991</option><option>1990</option><option >1989</option><option >1988</option><option >1987</option><option >1986</option><option >1985</option><option >1984</option><option >1983</option><option >1982</option> <option >1981</option><option >1980</option><option >1979</option><option >1978</option><option >1977</option><option >1976</option><option >1975</option>

<option >1974</option><option >1973</option><option >1972</option><option >1971</option><option >1970</option><option >1969</option><option >1968</option><option >1967</option><option >1966</option> <option >1965</option><option >1964</option><option >1963</option><option >1962</option><option >1961</option><option >1960</option> <option >1959</option><option >1958</option><option >1957</option><option >1956</option><option >1955</option><option >1954</option><option >1953</option><option >1952</option><option >1951</option><option >1950</option><option >1949</option><option >1948</option><option >1947</option><option >1946</option> <option >1945</option><option >1944</option><option >1943</option><option >1942</option<option >1941</option><option >1940</option><option >1939</option><option >1938</option><option >1937</option><option >1936</option><option >1935</option><option >1934</option><option >1933</option><option >1932</option><option >1931</option><option >1930</option><option >1929</option><option >1928</option><option >1927</option><option >1926</option><option >1925</option><option >1924</option><option >1923</option>

<option >1922</option><option >1921</option><option >1920</option><option >1919</option><option >1918</option><option >1917</option><option>1916</option><option >1915</option><option >1914</option><option>1913</option><option >1912</option><option >1911</option><option >1910</option><option >1909</option><option >1908</option><option >1907</option><option >1906</option><option >1905</option></select>

</br>

</p>

<p>

<label> Education Status:</label>

<select name="status" onBlur="statusselect()"><option></option><option>Degree</option><option>Masters</option><option>Docter</option>

<option>Nurse</option><option>PHD</option><option>Diploma</option></select>

</br>

</p>

<p>

<label> Date of employement:</label><select name="date" onBlur="statusselect()"><option></option>

<option >1</option><option >2</option><option >3</option><option >4</option><option >5</option><option >6</option><option >7</option>

<option >8</option> <option >9</option><option >10</option><option >11</option><option >12</option><option >13</option> <option >14</option>

<option >15</option><option >16</option><option >17</option> <option >18</option><option >19</option><option >20</option><option >21</option>

<option >22</option><option >23</option><option >24</option><option >25</option><option >26</option><option >27</option><option >28</option>

<option >29</option><option >30</option> <option>31</option>

</select>

</br>

<label><br>

Month of employement:</label>

<select name="month" onBlur="statusselect()">

<option></option> <option >Jan</option><option >Feb</option><option >Mar</option> <option >Apr</option><option >May</option><option >Jun</option><option>Jul</option><option >Aug</option><option >Sep</option><option >Oct</option><option >Nov</option><option >Dec</option>

</select>

</br>

</p>

<p>

<label>Year of Employement:</label>

<select name="year1" onBlur="statusselect()">

<option></option><option >2015</option><option >2014</option><option >2013</option><option >2012</option><option >2011</option><option >2010</option><option >2009</option><option >2008</option>

<option >2007</option><option >2006</option><option >2005</option><option >2004</option><option >2003</option><option >2002</option><option >2001</option><option >2000</option><option >1999</option><option >1998</option><option >1997</option><option >1996</option><option >1995</option><option >1994</option><option >1993</option><option >1992</option><option >1991</option><option>1990</option><option >1989</option><option >1988</option><option >1987</option><option >1986</option><option >1985</option><option >1984</option><option >1983</option><option >1982</option> <option >1981</option><option >1980</option><option >1979</option><option >1978</option><option >1977</option><option >1976</option><option >1975</option>

<option >1974</option><option >1973</option><option >1972</option><option >1971</option><option >1970</option><option >1969</option><option >1968</option><option >1967</option><option >1966</option> <option >1965</option><option >1964</option><option >1963</option><option >1962</option><option >1961</option><option >1960</option> <option >1959</option><option >1958</option><option >1957</option><option >1956</option><option >1955</option><option >1954</option><option >1953</option><option >1952</option><option >1951</option><option >1950</option><option >1949</option><option >1948</option><option >1947</option><option >1946</option> <option >1945</option><option >1944</option><option >1943</option><option >1942</option<option >1941</option><option >1940</option><option >1939</option><option >1938</option><option >1937</option><option >1936</option><option >1935</option><option >1934</option><option >1933</option><option >1932</option><option >1931</option><option >1930</option><option >1929</option><option >1928</option><option >1927</option><option >1926</option><option >1925</option><option >1924</option><option >1923</option>

<option >1922</option><option >1921</option><option >1920</option><option >1919</option><option >1918</option><option >1917</option><option>1916</option><option >1915</option><option >1914</option><option>1913</option><option >1912</option><option >1911</option><option >1910</option><option >1909</option><option >1908</option><option >1907</option><option >1906</option><option >1905</option></select>

</br>

</p>

<p>

<label>Marriage status:</label>

<select name="marriage" onBlur="statusselect()">

<option></option><option>married</option> <option>single</option>

</select>

</br></p> <p>

<label >Type of employee:</label>

<select name="typeofemp" onBlur="statusselect()">

<option></option><option>Regular</option><option>overtime</option>

</select>

</br></p><p>

<label id="gender">Sex </label>

<input type="radio" name="sex" value="Male" checked />

<span>Male</span>

<input type="radio" name="sex" value="Female" />

<span>Female</span><br><p>

<label for="salary">Salary:</label>

<input type="text" name="salary" size="50" onBlur="allLetter()"/></br>

</p></br>

<center><input type="Submit" name="Submit" value="Submit" />

<input type="reset" name="Reset" value="Reset" class="button"></center>

</p>

</ul>

</form> <?php

if(isset($\_POST['Submit']))

{

$id=$\_POST['userid'];

$Fname=$\_POST['fname'];

$Mname=$\_POST['mname'];

$Lname=$\_POST['lname'];

$Department=$\_POST['dep'];

$Age=$\_POST['age'];

$Birthyear=$\_POST['year'];

$Educationstatus=$\_POST['status'];

$Dayofemployement=$\_POST['date'];

$Monthofemployement=$\_POST['month'];

$Yearofemployement=$\_POST['year1'];

$marriage=$\_POST['marriage'];

$Typeofemployee=$\_POST['typeofemp'];

$sex=$\_POST['sex'];

$salary=$\_POST['salary'];

{

$sql="INSERT INTO emp\_register (emp\_Id,Fname,Mname,Lname,Department,Age,Birthyear,Educationstatus,Dayofemployement,Monthofemployement,Yearofemployement,Marriagestatus,Typeofemployee,Sex,salary)VALUES

('$id','$Fname','$Mname','$Lname','$Department','$Age','$Birthyear','$Educationstatus','$Dayofemployement','$Monthofemployement','$Yearofemployement','$marriage','$Typeofemployee','$sex','$salary')";

if (!mysql\_query($sql,$conn))

{

echo'<P style="color:red" > Error Already Registered with this employee ID</p>'.$id;

echo' <meta content="10;perRegi.php" http-equiv="refresh" />';

}

else

{

echo'<p class="success" style="color:#390"> Successfully register!</p>';

echo' <meta content="6;perRegi.php" http-equiv="refresh" />';

}}}

mysql\_close($conn)

?>

**Code for Delete employee**

<?php

$conn=mysql\_connect("localhost","root","");

mysql\_select\_db("hrm",$conn);

if($log != "log"){

header ("Location: allemployesresult.php");

}

$ctrl = $\_REQUEST['emp\_id'];

$SQL = "DELETE FROM emp\_register WHERE emp\_id = '$ctrl'";

mysql\_query($SQL);

mysql\_close($db\_handle);

print "<script>location.href = 'allemployesresult.php'</script>";

?>

**Code for search employee information**

<form action="searchper.php" method="post">

<table border="0" cellspacing="20">

<tr><td>Choose Search Type<br/><select name="searchtype">

<option value="emp\_id">Emp\_id</option>

<option value="Fname">Name</option>

</select>

</td>

<td>Enter Search Term <br/>

<input name="searchterm" type="search" size="40"/></td>

</tr>

<tr><td colspan="2"><center><input type="submit" name="submit" value="Search"/></center></td></tr>

</table>

</form> <form action="allemployesresult1.php" method="post" >

<center><input type="submit" name="submit" value="Show all Employes" /></center> </form></table>

<h1 align="center">Employes Search Results</h1>

<?php

if(isset($\_POST['searchtype']) || isset($\_POST['searchterm'])){

// create short variable names

$searchtype=$\_POST['searchtype'];

$searchterm=trim($\_POST['searchterm']);}

if (!isset($searchtype) || !isset($searchterm )) {

echo '<p style=color:#FF0000>You have not entered search details. Please go back and try again.<a href="perSearchinfo.php" style=text-decoration:none><input type="button" value="back"></a></p>';

exit;}

if (!$searchtype || !$searchterm ) {

echo '<p style=color:#FF0000>You have not entered search details. Please go back and try again.<a href="perSearchinfo.php" style=text-decoration:none><input type="button" value="back"></a></p>';

exit;}

if (!get\_magic\_quotes\_gpc()){

$searchtype = addslashes($searchtype);

$searchterm = addslashes($searchterm);}

@$db = new mysqli('localhost', 'root', '', 'hrm');

if (mysqli\_connect\_errno()) {

echo 'Error: Could not connect to database. Please try again later.';

exit;}

$query = "select \* from emp\_register where ".$searchtype." like '%".$searchterm."%'";

$result = $db->query($query);

$num\_results = $result->num\_rows;

echo "<p align='center'>Number of emplyes found: ".$num\_results."</p>";

echo "<table border=\"0\" cellspacing=\"0\" align='center'>";

for ($i=0; $i <$num\_results; $i++) {

$row = $result->fetch\_assoc();

echo '<tr >';

echo "<td>";

echo ($i+1).".Full Name: ";

echo stripslashes($row['Fname'].'&nbsp;'.$row['Mname'].'&nbsp;'.$row['Lname']);

echo "<br />Emp\_id: ";

echo stripslashes($row['emp\_id']);

echo "<br />Department: ";

echo stripslashes($row['Department']);

echo "<br />Age: ";

echo stripslashes($row['Age']);

echo "<br />Birth year: ";

echo stripslashes($row['Birthyear']);

echo "<br />Education status: ";

echo stripslashes($row['Educationstatus']);

echo "<br />Employement of Date/Month/year: ";

echo stripslashes($row['Dayofemployement'].'&frasl;'.$row['Monthofemployement'].'&frasl;'.$row['Yearofemployement']);

echo "<br />Marriage status: ";

echo stripslashes($row['Marriagestatus']);

echo "<br />Type of emplyee: ";

echo stripslashes($row['Typeofemployee']);

echo "<br />Gender: ";

echo stripslashes($row['Sex']);

echo "<br />Salary: ";

echo stripslashes($row['salary']);

echo"<hr>";

//echo "</tr>";

$Btitle=htmlspecialchars(stripslashes($row['Fname']));

print("

<td ><a href = 'updateemployeeinfo.php?emp\_id=".$row['emp\_id']."'>[Edit]</a>

<a href = 'deleteemployee1.php?emp\_id=".$row['emp\_id']."'><p onclick='isdelete();'>[Delete]</p></a></td>

");

//echo '&nbsp&nbsp&nbsp&nbsp&nbsp<a href="updateempinfo.php"?emp\_id=' . $row['emp\_id'].'">[Edit]</a>';

//echo '&nbsp&nbsp&nbsp&nbsp&nbsp<a href="deleteemployee.php"?emp\_id=' . $row['emp\_id'].'">[Delete]</a>';

echo"<hr>";

echo "</td></tr>";}

echo "</table>";

$result->free();

$db->close();

?>

**Code for change password**

<H1 align="center">Edit Employee Account!</h1>

<table align='center' style='text-align:justify;border-radius:15px;border:1px solid #000000; -webkit-box-shadow:0 0 18px rgba(0,0,0,0.4); -moz-box-shadow:0 0 18px rgba(0,0,0,0.4); box-shadow:0 0 18px rgba(0,0,0,0.4);'>

<tr bgcolor="#990000">

<th style='height:30px; font-weight:bold;'><font color='white' size='2'>Emp\_id</th>

<th style='height:30px; font-weight:bold;'><font color='white' size='2'>Names</th>

<th style='height:30px; font-weight:bold;'><font color='white' size='2'>Role</th>

<th style='height:30px; font-weight:bold;'><font color='white' size='2'>Username</th>

<th style='height:30px; font-weight:bold;'><font color='white' size='2'>Password</th>

<th style='height:30px; font-weight:bold;'><font color='white' size='2'>Email</th>

<th style='height:30px; font-weight:bold;'><font color='white' size='2'>Action</th>

</tr> <?php

$result = mysql\_query("SELECT \* FROM signup");

while($row = mysql\_fetch\_array($result)) {?>

<td><?php echo $row['emp\_id'];?></td>

<td><?php echo $row['Firstname']."&nbsp;".$row['Lastname'];?></td>

<td><?php echo $row['Role'];?></td>

<td><?php echo $row['Username'];?></td>

<td><?php echo $row['Password'];?></td>

<td><?php echo $row['email'];?></td>

<?php

print(" <td style='height:30px;'><a href = 'editaccount.php?emp\_id=".$row['emp\_id']."'>[Edit]</a></td>

");?> </tr>

<?php }

print( "</table>");

mysql\_close($conn);

?>

**Code for User Authentication**

<?php

$conn=mysql\_connect("localhost","root","");

mysql\_select\_db("hrm",$conn);

if (isset($\_POST['Login'])){

$username=$\_POST['un'];

$password=$\_POST['pw'];

$sql ="SELECT \* FROM signup WHERE Username='$username' AND Password='$password'";

$result = mysql\_query($sql);

$rowCheck = mysql\_num\_rows($result);

$row=mysql\_fetch\_array($result);

if($row['Role']=='Administrator'){

$\_SESSION['emp\_id']=$row['emp\_id'];

echo "<script>window.location='admihome.php';</script>";}

else if($row['Role']=='Personnel'){

$\_SESSION['emp\_id']=$row['emp\_id'];

echo "<script>window.location='perhome.php';</script>";} else if($row['Role']=='Employee'){

$\_SESSION['emp\_id']=$row['emp\_id'];

echo "<script>window.location='emphome.php';</script>";}

else {

echo'<br>';

echo' <p class="wrong" style="color:red;" >Check Your username or/and Password!</p>';

echo' <meta content="15;logini.php" http-equiv="refresh" />';}}

mysql\_close($conn);?>

<form action="logini.php" method="post" name="form" onSubmit="return validate()"target=\_self ><p align="center"><img src="../Image/222.jpg" width="201" height="63"/></p> <label><p align="center">Username:&nbsp;&nbsp;</label> <input type="text" name="un" size="15" placeholder="Name"/><span id="firstnameerror" class="error" ></span> <br />

<label><p align="center">Password :&nbsp;&nbsp;</label><input type="password" name="pw" size="15" placeholder="\*\*\*\*\*\*\*\*\*\*" /><span id="passworderror" class="error" ></span></span><br />

<div align="center"><p><input type="submit" value="Login" name="Login" Onclick="return check(this.form);"/>

<input name="reset" type="reset" value="Cancel" /></p></div></form>

**Code for view vacancy**

<?php

$con = mysql\_connect("localhost","root","");

if (!$con){

die('Could not connect: ' . mysql\_error());}

mysql\_select\_db("hrm", $con);

$result = mysql\_query("SELECT \* FROM vacancy");

echo "<table border='1' align='center' >

<tr bgcolor='#993300'>

<th>Dep't</th>

<th>Acad Rank</th>

<th>Field of specialization Required</th>

<th>Num-staff Required</th>

<th>Gender</th>

<th>Regi start date</th>

<th>Regi end date</th>

<th >Action</td></tr>";

while($row = mysql\_fetch\_array($result)){

echo "<tr>";

echo "<td>" . $row['Departement'] . "</td>";

echo "<td>" . $row['Academic\_rank'] . "</td>";

echo "<td>" . $row['Fieldofspecialization'] . "</td>";

echo "<td >" . $row['Numberof\_staff'] . "</td>";

echo "<td>" . $row['gender'] . "</td>";

echo "<td>" . $row['Registrationstartdate'] . "</td>";

echo "<td >" . $row['registrationenddate'] . "</td>";

echo "<td >" ."<a href='deletevacancy.php ?del1=$row[id]'><p onclick='isdelete();'>[Delete]</a></p> ". "</td>";

echo "</tr>";}

echo "</table>";

mysql\_close($con);

?>

**Code for generate report**

<?php

@$db = new mysqli('localhost', 'root', '', 'hrm');

if (mysqli\_connect\_errno()) {

echo 'Error: Could not connect to database. Please try again later.';

exit;}

$p="PHD";

$dip="Diploma";

$deg="Degree";

$Mas="Masters";

$doc="Docter";

$ner="Nurse";

$m="Male";

$f="Female";

$mdipquery ="SELECT\* FROM emp\_register where Educationstatus='".$dip."' AND sex='".$m."'";

$mdipres=@$db->query($mdipquery);

$mdipnum\_results = $mdipres->num\_rows;

$fdipquery ="SELECT\* FROM emp\_register where Educationstatus='".$dip."' AND sex='".$f."'";

$fdipres=@$db->query($fdipquery);

$fdipnum\_results = $fdipres->num\_rows;

$mdocquery ="SELECT\* FROM emp\_register where Educationstatus='".$doc."' AND sex='".$m."'";

$mdocres=@$db->query($mdocquery);

$mdocnum\_results = $mdocres->num\_rows;

$fdocquery ="SELECT\* FROM emp\_register where Educationstatus='".$doc."' AND sex='".$f."'";

$fdocres=@$db->query($fdocquery);

$fdocnum\_results = $fdocres->num\_rows;

$mnerquery ="SELECT\* FROM emp\_register where Educationstatus='".$ner."' AND sex='".$m."'";

$mnerres=@$db->query($mnerquery);

$mnernum\_results = $mnerres->num\_rows;

$fnerquery ="SELECT\* FROM emp\_register where Educationstatus='".$ner."' AND sex='".$f."'";

$fnerres=@$db->query($fnerquery);

$fnernum\_results = $fnerres->num\_rows;

$mp ="SELECT\* FROM emp\_register where Educationstatus='".$p."' AND sex='".$m."'";

$mpres=@$db->query($mp);

$mpnum\_results = $mpres->num\_rows;

$fpquery ="SELECT\* FROM emp\_register where Educationstatus='".$p."' AND sex='".$f."'";

$fpres=@$db->query($fpquery);

$fpnum\_results = $fpres->num\_rows;

$mdegquery ="SELECT\* FROM emp\_register where Educationstatus='".$deg."' AND sex='".$m."'";

$mdegres=@$db->query($mdegquery);

$mdegnum\_results = $mdegres->num\_rows;

$fdegquery ="SELECT\* FROM emp\_register where Educationstatus='".$deg."' AND sex='".$f."'";

$fdegres=@$db->query($fdegquery);

$fdegnum\_results = $fdegres->num\_rows;

$mMasquery ="SELECT\* FROM emp\_register where Educationstatus='".$Mas."' AND sex='".$m."'";

$mMasres=@$db->query($mMasquery);

$mMasnum\_results = $mMasres->num\_rows;

$fMasquery ="SELECT\* FROM emp\_register where Educationstatus='".$Mas."' AND sex='".$f."'";

$fMasres=@$db->query($fMasquery);

$fMasnum\_results = $fMasres->num\_rows;

$doct=$fdocnum\_results+$mdocnum\_results;

$nert=$fnernum\_results+$mnernum\_results;

$dipt=$fdipnum\_results+$mdipnum\_results;

$degt=$fdegnum\_results+$mdegnum\_results;

$mast=$fMasnum\_results+$mMasnum\_results;

$pt=$fpnum\_results+$mpnum\_results;

echo'<table border ="5";color="#fff0000" class="tble" >

<tr bgcolor="#996633"> <th >Education Level</th><th >Male</th<th>Female</th>

<th >Total</th> </tr><tr align="center"><td bgcolor="#996633">Docter</td>

<td >'.$mdocnum\_results.'</td> <td >'.$fdocnum\_results.'</td><td >'.($doct).'</td>

</tr><tr align="center"> <td bgcolor="#996633">Nurse</td><td>'.$mnernum\_results.'</td><td>'.$fnernum\_results.'</td> <td >'.($nert).'</td> </tr> </tr> <tr align="center"> <td bgcolor="#996633">Diploma</td> <td >'.$mdipnum\_results.'</td> <td>'.$fdipnum\_results.'</td> <td >'.($dipt).'</td> </tr> <tr align="center"> <td bgcolor="#996633">Degree</td> <td >'.$mdegnum\_results.'</td>

<td >'.$fdegnum\_results.'</td><td >'.($degt).'</td>

</tr> <tr align="center"><td bgcolor="#996633">Masters</td><td>'.$mMasnum\_results.'</td><td>'.$fMasnum\_results.'</td><td>'.($mast).'</td></tr>

<tr align="center"><td bgcolor="#996633">PHD</td> <td>'.$mpnum\_results.'</td>

<td>'.$fpnum\_results.'</td><td>'.($pt).'</td></tr> <tr align="center">

<td colspan="3" align="right" bgcolor="#996633">Total</td>

<td><b>'.($mast+$degt+$dipt+$pt+$nert+$doct).'</b></td></tr> </table>';

$db->close();

?>

## 5.3 Test Procedures

* **Unit testing:** Verification (A set of operations that the software correctly implemented a particular function) on the smallest element of the program i.e. the modules are tested alone in order to discover any error in the code.
* **Some of errors that controls**
* When the field is empty, the system will display username required.
* When we enter a character instead of numeric value, the system will display emp\_id should be number.
* When we enter a numeric value instead of character, the system will display user name should be character.
* **Integrated testing :**The process of bringing together all the modules that a program comprises for testing purpose.

## 5.3 Hardware software acquisitions

For the proper functioning of the system the following hardware and software are required

* **Hardware’s**
* Compute
* CD/DVD disk
* **Software’s**
* Wamp server
* Internet explorer, Mozila firfox
* Adobe dream weaver CS5,notpade++

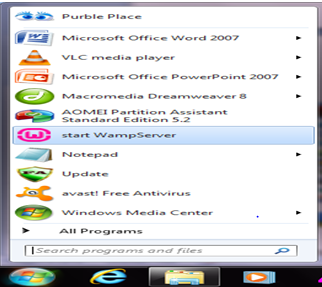
**.**

## 5.4 User manual preparation

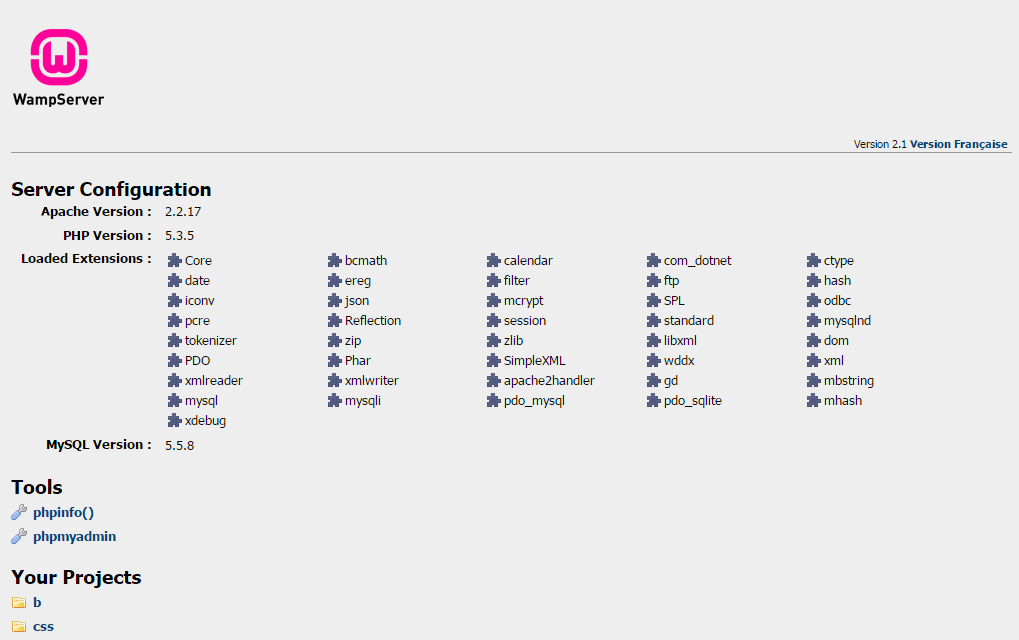
Steps1

* Activate wamp server from the Desktop or Start up Menu if it’s not activated.

Click on start - >wamp server

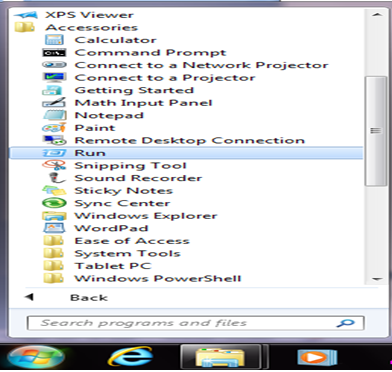


Then Click on “Hide these window and start server” Button



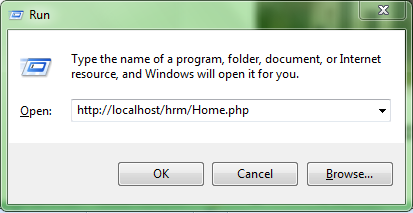
**Step2**

* From the start menu click on start->All program🡪Accessories 🡪Run



Steps3

* In the run Dialog box type the URL of the page (example http://localhost/hrm/Home.php) and the click “OK” button



After the application have been installed and tested the system is ready to be functional and then preparation could begin to place the new system in to operation. Hence, in order the new system to be operational the new system should be loaded with the existing data from the old system. The start-up strategy used is parallel conversion strategy, means the old system and the new system will operate simultaneously for some time, because the defect of the new system will be identified if any, before the old system is abandoned and until get user acceptance

## 5.5 Installation Process

After installing both Adobe Dreamweaver and wamp server software do the following steps

**Step1**

* Get the folder “Final project “from the Developing Team.

**Step 2**

* Copy the folder to WWW folder in the c: \wamp\www

After doing these steps again, copy the folder “HRM data” from the Developing Team then.

**Step3**

* Paste into the folder ”data “in the C: \Wamp\www\Data

**Step4** Installation is Finished.

# Chapter Six: Conclusions and Recommendation

## 6.1Conclusion

An effort has been made to study HRMS of Sodo referral hospital as partial fulfillment of BSc degree in computer science and information Technology. In doing the study the team has tried to follow object oriented system analysis and design methodology.

Since the success and failure of any system depends on gathering the right information through different fact-finding techniques and user involvements, the team has made the best effort to gather requirements. After a detail review and study of the existing system of HRM models have been designed to reflect the new system that is suppose to solve problems.

Designing computerized HRM of Sodo referral hospital helps to maintain a computer based HRM.

In order to solve different problems existed the team has tried to propose a solution that at least reduce the existed problems and model the proposed system using different tools and methodologies. We believe that different tools and techniques has helped us a lot in capturing real user requirements and model the right system for the users for their day to day transactions. Thus it should have the precedence in know-how and experience in collecting, processing and utilizing information.

## 6.2 Recommondations

As its obvious the use of and advantage of computerized systems over manual information systems, we strongly recommend Sodo referral hospital HRM to implement our new system in order to achieve capabilities like reliable data keeping ,fast data processing and transmissions , well defined communications among departments ,sharing a single database and so on.

It’s true that our country’s is yet developing country that most things are done manually which in turn is affecting our economy, and new systems like our systems should be adopted so that it highly reduces the burden of the hospital. And make the service recipient happy. Which clearly notify the saying “simplicity is the ultimate sophistication?”

# Reference

* 1. Internet with important URL like <http://www.w3schools.com/php>

<http://www.freestudentprojects.com/site-map/>

* 1. J.Duncan System analysis and design 5th edition
  2. Elmasri, Ramex. Fundamentals of database systems.2nd.ed.Redwood city, CA: Benjamin Cummings publication