Problems Analysis of Fisheries Department and It's Solution

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DECEMBER 2005

BRAC UNIVERSITY, DHAKA, BANGLADESH

DECLARATION

In accordance with the requirements of the degree of Bachelor of Computer Science and Engineering in the division of Computer Science and Engineering, I present the following thesis entitled "Problems Analysis of Fisheries Department and its Solution". This work was performed under the supervision of Dr. Yousuf Mahbubul Islam.

I hereby declare that the work submitted in this thesis is my own and based on the results found by myself. Materials of work found by other researcher are mentioned by reference. This thesis, neither in whole nor in part, has been previously submitted for any degree.

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Signature of   Signature of
Supervisor   Author

ACKNOWLEDGEMENT

I would like to express my sincerest appreciation and profound granitite to my supervisor Dr.Yousuf Mahbubul Islam, Professor Department of Computer Science and Engineering, BRAC University, for his supervision, encourage guidance. In the course of the project development he discussed problems. He helped to overcome hurdles. His keen interest and valuable suggestions and advice were the source of all inspiration to me.

ABSTRACT

Automation of various Govt. Departments is going on. But security, efficiency and sustainability still remain on question. As a part of that I want to do System Analysis and Design on various activities of 4th Fisheries Project, which is a Govt. project of Department of Fisheries.

This project has been recently automated and well equipped and includes a Local Area Network. But they have different types of problem both on online and offline activities.

As a result they are not getting proper output from their system and most of the time their system remains idle. My thesis can help them to solve their problems and also can be implemented in other similar fields.

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CHAPTER I: INTRODUCTION

1.1 THE ORGANIZATION :

1.1.1 History

Department of Fisheries, Bangladesh (DoF) was first established in the undivided Bengal of the British India in 1908. In 1910 the DoF was abolished through merging with the Department of Agriculture. Again as per recommendation of Mr. T. Southwell the DoF became an independent organization in 1917. The DoF was abolished again in 1923. After long gap following the recommendation of Dr. M. Ramswami Naidu the DoF was revived in May 1942. Since the inception of the then East Pakistan (now Bangladesh) the DoF had been continued. After the independence of Bangladesh in 1971 the Central Fisheries Department of the then Pakistan merged with the DoF of Bangladesh in April 1975. Later on in 1984 Central Marine Fisheries Dept. merged with the DoF as a Marine Fisheries wing.

1.1.2 Organ gram/Structures

DoF is under the administrative control of the Ministry of Fisheries and Livestock. It is headed by a Director General, who is assisted by 3 Director and 2 Principal Scientific Officer (equivalent to Director). There are 845 technical officers of different hierarchy and 3278 supporting staffs in the DoF under the revenue budget who accomplish the routine activities of the DoF. There is administrative set-up at national, division, district and Upazila levels headed by Deputy Director, District Fisheries Officer and Upazila Fisheries Officer respectively. Besides these, there are 3 fish inspection and quality control stations, Marine Fisheries Station, Fisheries Training Centers, Farms and Hatcheries.

1.1.3 Mandate

- To disseminate improved aquaculture technologies through training and demonstration and to extend extension advisory services to the focal stakeholders.
- To enhance fisheries resources through enacting conservation and management measures.
- Assist the administrative ministry to formulate policies, acts etc.
- To enforce quality control measures and issuance of health certificates for exportable fish and fish products.
- To conduct fisheries resources survey and assessment of stock to develop fisheries database for proper planning.
- To facilitate arrangement for institutional credit for fish and shrimp farmers, fishers and fish traders.
- To formulate and implement development projects towards sustainable utilization of fisheries resources to ensure food security.
- To facilitate alternative income generating activities for rural poor and unemployed people towards poverty alleviation.

1.2 4TH Fisheries Project Overviews:

4th fisheries Project is a Govt. project of Fisheries Department, which is financed by World Bank. IT related activities of Dof were introduced by this project. This project established a large setup for networking activities in order to give access of Internet in all the district office of Dof. In their activities of automation, one big project was Data Collection System, which is still in progress.

Chapter II: System Analysis

2.1 An Overview on Current System :

2.1.1 Current Human Resource Management (PDS) System:

Fisheries department has more then 300 1st class employee and 450 2nd class employees. So they got a huge no of paper base personal data forms. Each form contains 3 pages of information and other necessary papers like SSC, HSC certificates, Degree transcript, award certificates, publications etc.

Among them some forms are hand-written and some are typed. They stored all their form in a very congested room.

They need various information about their employee from PDS form. Like they need information about birthday, joining day in service, training information, foreign travel information for their decision making on various purpose. So when they need information, they have to go through their entire paper base sheet. Sometimes they face problem when the sheet is handwritten.

They need this information very frequently because of various purposes like
Date of Birth needs in order to determine their retirement date, when they get
Date of birth then they need to calculate the retirement date, which is very time consuming.

Again when they organize any foreign or in-country training they need to select some of their employee who is suitable for that training. For that they use sometime their guess and sometime PDS sheet. So they have to view all the training history in order to determine whether he/she did the proposed type of training or not.

2.1.2 Fisheries Data Collection Software (MIS):

4th Fisheries project is implementing a software, which is, know as MIS system. This software has 2 parts, one is for client, which they use to collect data from different districts and divisions, another one is server site, used to compile data and make reports. They collect Information on

1. Extension Activities
2. Monthly Expenditure
3. Collection of Non-Tax Revenue
4. Implementation of Different type of Acts
5. Production of Fish Seed Multiplication Farm/Hatcheries/Nurse
6. Training Provided by Dof
7. IEC materials of Dof

Division head office and district office collect data from upazila and village level quarterly, monthly and yearly based on activities type. Then the input collected data to MIS system. MIS system keep data to his database and make some reports on inputted data as Microsoft excel file. Then user sends those report files to the Dhaka, head office, through Email as attachment.

In the Head office collected Data are saved and compiled using server side MIS system. And reports are used for their internal purpose.

2.1.2.1 BLOCK DIAGRAM OF DATA COLLECTION PROCESS:
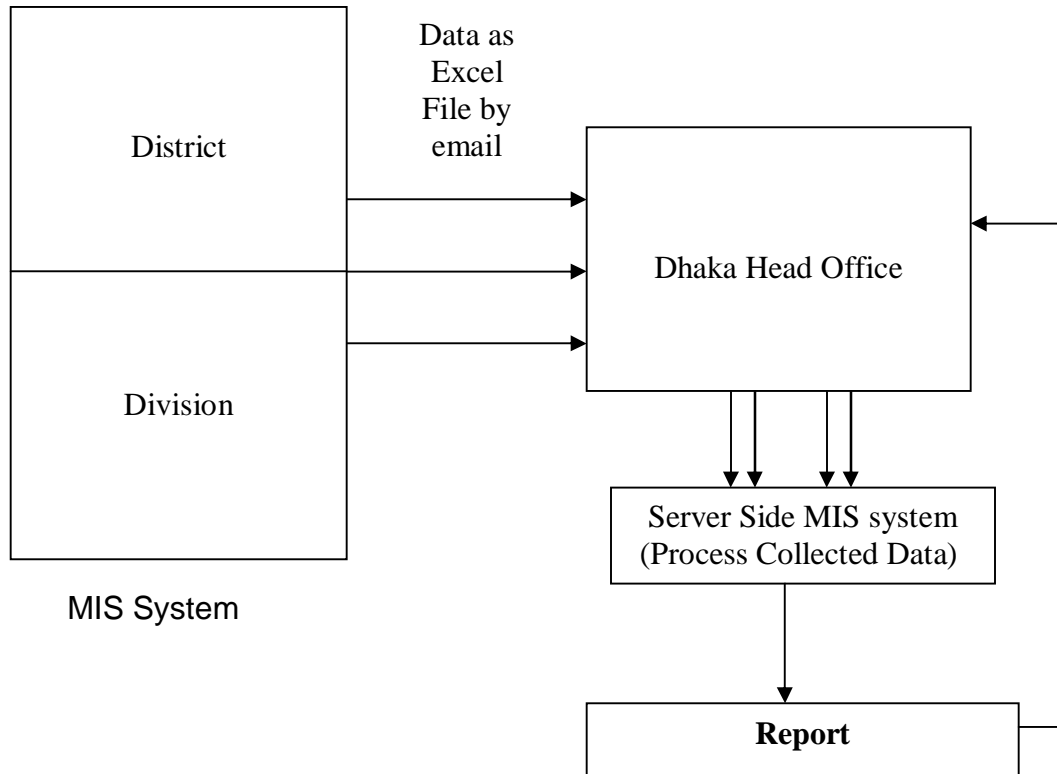
Fig 1: Block Diagram Of Data Collection Process

2.2 Problems of Current System:

Currently they don't have any automated system to manage their manpower. That's why they are facing many problems like some employees forget their retirement date.

Another big problem is in training management. As they do guess base training selection, so there occur repetition. Same employees do the same training again and again. Same problem occur at the time of making promotion list and transfer list.

2.2.1 Problem with Human Resource management:

- System is totally manual
- Time consuming process
- Misuse of data.
- Lack of security of someone's personal information
- Difficult understanding handwritten data.
- Data is not up to date

2.2.2 Problem with MIS system:

This is a very new system added to their department. But they're got some problems with this software. Most of the problems are happening in the implementation phase. Like data are not coming properly to the head office.

Though they arranged several trainings on this software but employees from various District and division are not able to send data correctly.

- As data send as email attachment using browser or email program so, its causes problem because employee has very little knowledge about mail program and Internet connectivity.
- User can sent any type of file as attachment. So server unit in Dhaka can affect by molecular virus program.
- No automated acknowledgement about successful data sends. User has to wait for manual acknowledgement.

2.3 Scope of The Project :

For thesis purpose, I study the whole IT section of Fisheries Department. They have both Internet and intranet facilities on LAN and WAN. They got their own setup for Internet connection and that is maintained by high skilled professional employee of 4th fisheries Project.

2.3.1 Scope of PDS:

When I study their system, I come to know that they are facing problems with human resource management. Then I analyze my scope on that particular problem. I found a certain type of form, which is provided by Ministry of Bangladesh. They had 1200 hard copies of form, which are already fill up by 1200 employees.

As that PSD form is provided by Ministry of Bangladesh, so more or less same format is used in all Govt. Departments of Bangladesh. So, same PDS sheet can be implemented in other departments as well.

2.3.2 Scope of Data Transfer Module:

In this part I concentrate on some ways of solving the problem. Because this is huge software and still they are updating this. So I analyze the problem of this software and recommend some solution of that problem in Chapter 6. Because if I concentrate on this module of data transfer, it will take a long time to solve it.

CHAPTER III: SYSTEM DEVELOPMENT

3.1 Methodology:

I use the SDLC process for system development

3.1.1 Phase 1: Project identification and selection

By Learning how existing system works and how much automated and problems of existing system, I find totally a manual system over there (Personal Data Sheet) and motivated to work on that.

When I went DoF (Department of fisheries), I come to know that they are working on a data collection system and I found some problems in sending data process. So I partially concentrate on the data transfer module of that system.

3.1.2 Phase 2: Project initiation and planning phase of PDS

3.1.2.1 Project Initiation:

- Develop a plan to get my work started.
- Develop a plan to solve problems.

3.1.2.2 Project Planning:

- Gather clear understanding about current system and problems.
- Make Baseline Project Plan (BPP)
    - Scope
    - Benefits
    - Costs
    - Risks
    - Resources
- List all the works that should be performed.

3.1.3 Phase 3: Analysis:

In the analysis phase, I gather some initial information about whole process. Then I collect some sample forms. As this is a standard form so I started work on it as it is.

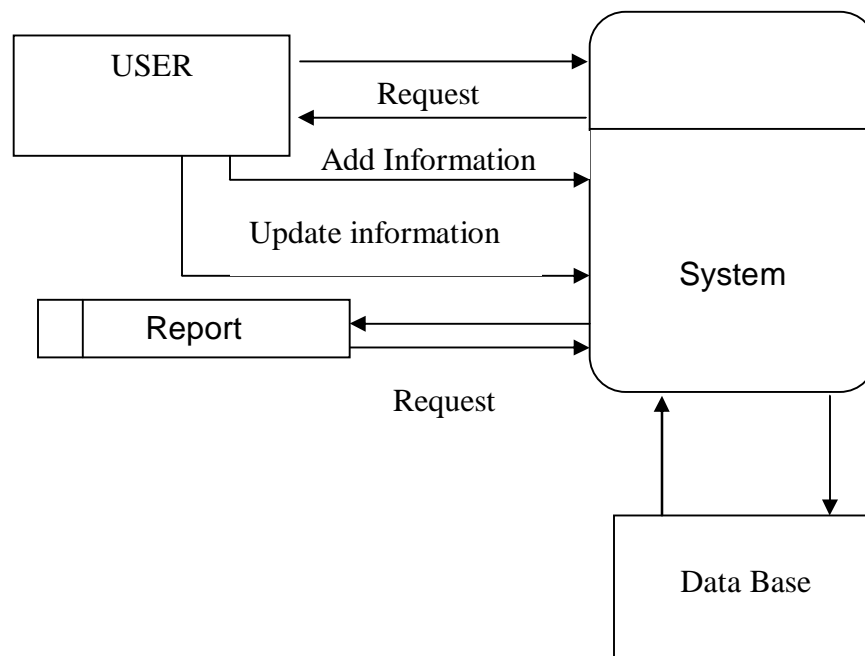**3.1.3.1 Context Diagram**

Fig 2: Context diagram of the system

Here user send request to the system in order to know information about employee, add information and update information. System directly interacts with Data Base System. User gets report from the system.

3.1.3.2 Requirements Gathering using a Prototype:

I started my work with a prototype design. First I design a prototype input form in Ms Excel. And let them to give some inputs. In this point their computer operators help me a lot. They inputted more then 30 employees personal data.

Then I started work on," what they need from the system ". I sat with some senior officers and ask for their initial requirements. They give me a list of requirements. The list of requirements are given below,

- We want to see the birthday of a employee
- Want to see present posting of a employee
- Home district information
- All personal information.
- Spouse and children information
- Educational qualification
- Training information
- Posting information
- All information about a particular employee, etc.

So, I started work on their requirements in Microsoft excel and Macro add-ons and make a prototype. They run my prototype and again give some new requirements .In this phase they understand the total prototype and operate my prototype. By running this prototype they think that I should include some more reporting options, like

- We will give a year/month input; system will show me all the employees who will go to retirement on that particular month or year.
- We will give a Training name, system will show me list of employees who have done that training
- Whose spouses are in service?
- And many report generation on various criteria, Etc.

3.1.3.3 Prototype Testing:

Prototype is used for understanding the whole system and requirements analysis. Most of the time normal user don't understand high-level program. What they understand is MS Word, MS Excel, etc like program. As they are familiar with MS excel so my testing work become easy. Because, it's a very important part to test and finalize prototype.
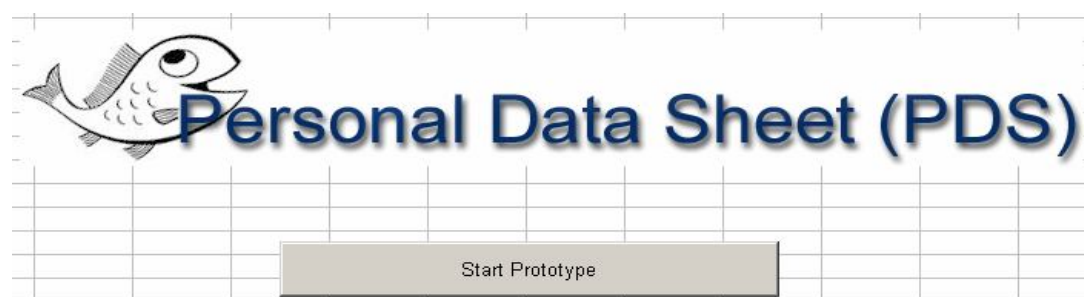

Fig 3: Main window of my prototype

	A	B	C	D	E	F	G	H
22	**ID**	**Name**	**Govt_id**	**Cadre**	**Father_Name**	**Home_District**	**Gender**	**Status**
23	22	Md. Monowarul Alam	118	BCS (Fisheries)	Late Md. Golam Sarwar	Comilla	Male	Married
24	23	Jamal Huddin	119	BCS (Fisheries)	Late Iagneshawar halder	Chittagong	Female	Married
25	24	Sunil Kumar Das	120	BCS (Fisheries)	Madan Mohan Das	Chandpur	Male	Married
26	25	Mirza Abdul Latif	121	BCS (Fisheries)	Late Mirza Maissuddin Ahmed	Brahmanbaria	Male	Married
27	26	Md. Abul Hossain	122		Late Hazi Taib Ali Sarker	Bandarban	Male	Married
28	27	Md. Aminoor Rahman		BCS (Fisheries)	Mr. Mokhlesur Rahman	Pirojpur	Male	Married
29	28	Mir Sabbir Ahmmed		BCS (Fisheries)	Late Mir Anwar Ali	Patuakhali	Male	Married
30	29	Alauddin Ahmed			Late Mvi Rahim Uddin Zamadar		Male	Married
31	30	M A. Wahab .		BCS (Fisheries)	Md. Asiruddin.	Bhola	Male	Married
32	31	Md. Mominur Rahman			Late Habibar Rahman	Barisal	Male	Married
33	32	Kazi Abul Kalam		BCS (Fisheries)	Late Kazi Abul Wadud	Barguna	Male	Married
34	33	Md. Mofazzal Hossain.			Late Taher Ali Mondal		Male	Married
35	34	Kamal Uddin Ahamed		BCS (Fisheries)	Md. Abdullah		Male	Married

Show Personal Information by ID

Show Personal Information by Name

Show Personal Information by Govt. ID

Show Personal Information By Home District

Show Personal Information By BCS CADRE Number

Fig 4: Data Input Scheme of the Prototype

This Excel Prototype contains 9 separate sheets of data input form. In every sheet related querys, based on user requirements is given.
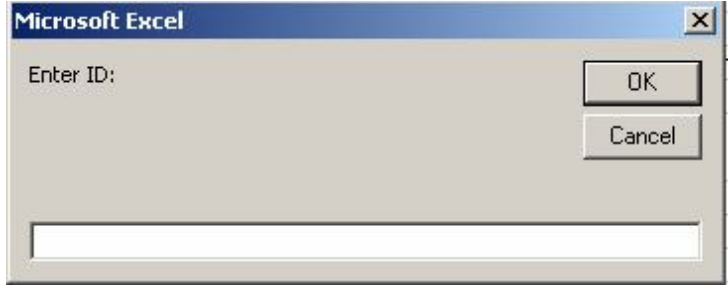
Fig 5: input box of prototype

In the input box, user is asked for input (here ID). When user gives an input, s/he will get all the personal information about that employee. If user does so then he/she will get the following screen as output.

	A	B	C	D	E	F	G	H	I	J	K	
1	ID	Name	Govt_id	Cadre	Father_Name	Home_District	Gender	Status	Date of Birth	Office	District	Language
2	2	Abu Md. Iqbal		BCS (Fisherie:	Late Mui. Eklas Uddin Ahmed.	Netrakona	Male	Married	24-Nov-44	Upazilla Fisheries	Khulna	Bangla

Fig 6: report from prototype

3.1.4 Phase 4 Design Phase:

This is one of the very important phase of whole cycle of system development. So it should be well designed to get proper output.

3.1.4.1 Designing Database of PDS:

Database is the main important part of this system. So it was necessary to concentrate on efficient database design.

3.1.4.1.1 Entity relationship diagram (ERD)
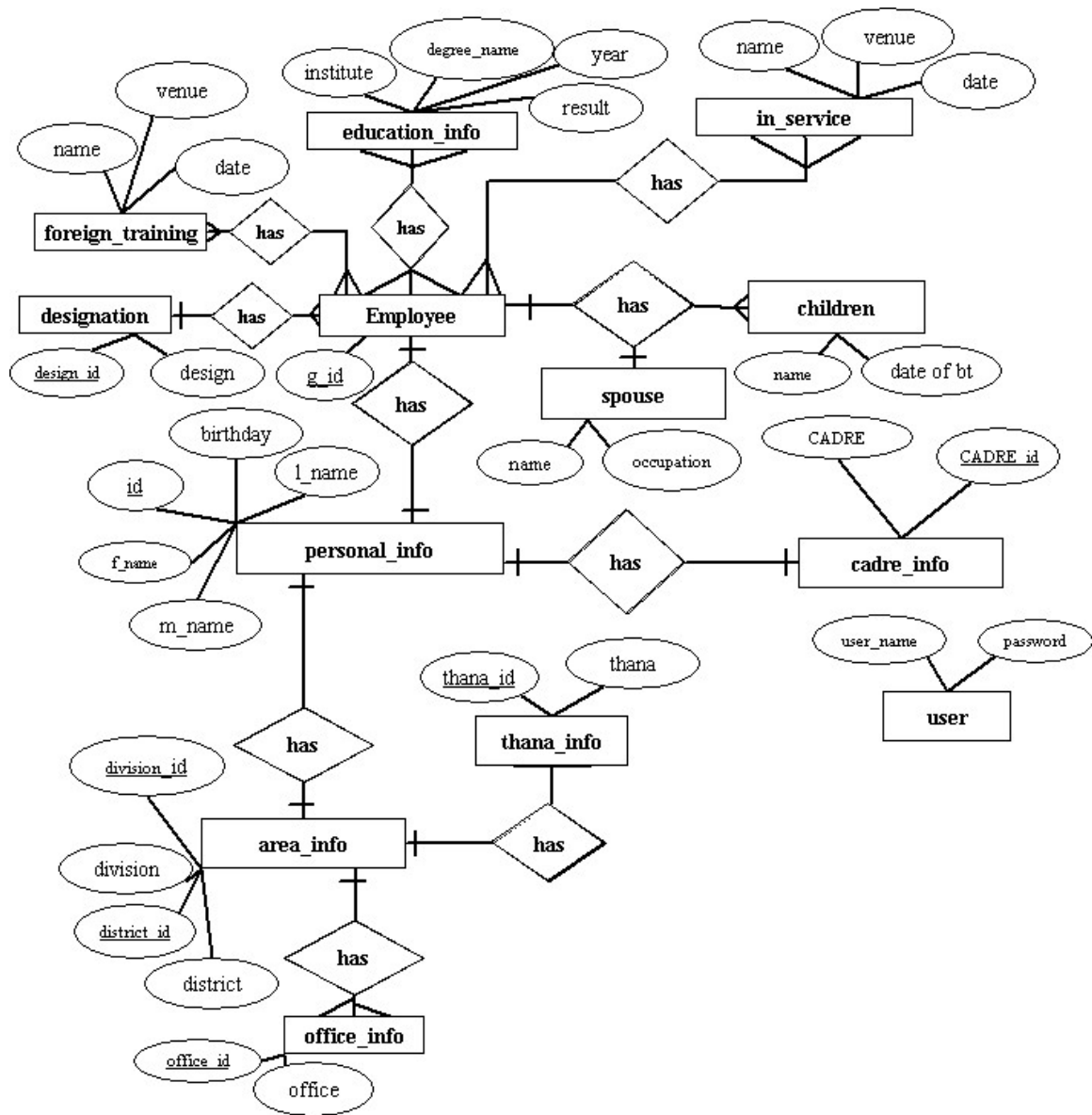
Fig 7: Entity Relationship Diagram

3.1.4.1.2 Table Design

1. Table Name: personal_info

Purpose: To record Personal Information.

Field	Type
id	varchar(20)
gov_id	varchar(20)
f_name	varchar(50)
m_name	varchar(50)
l_name	varchar(50)
Birthday	varchar(50)

Description: this table contains personal information about an employee. Here id is the primary key.

personal_info (id , gov_id , f_name, m_name , l_name, Birthday)

2. Table Name: CARDE_info

Purpose: To record CADRE Information.

Field	Type
id	varchar(20)
CARDE _id	varchar(20)
CARDE	varchar(20)

Description: this table contains CARDE information about a employee. Here, Cadre_id is the primary key and id is foreign key.

CARDE _info (id, Cadre_id, Cadre)

3. Table Name: area_info

Purpose: To record Area Information.

Field	Type
id	varchar(20)
division	varchar(50)
division_id	varchar(50)
district	varchar(50)
district_id	varchar(50)

Description: this table contains Area information about an employee. Here id is the foreign key. district_id and division_id together is primary key.

area_info (id, division_id , division, district, district_id)

4. Table Name: thana_info

Purpose: To record thana Information.

Field	Type
id	varchar(20)
district	varchar(50)
district_id	varchar(50)
thana	varchar(50)
Thana_id	varchar(50)

Description: this table contains thana information about an employee. Here thana_id is the primary key,id and district_id is the foreign key

thana_info (id , district , district_id ,thana ,Thana_id)

5. Table Name: office_info

Purpose: To record Office Information.

Field	Type
id	varchar(20)
Office_id	varchar(50)
Office_name	varchar(50)

Description: this table contains office information about an employee. Here office_id is the primary key and id is the foreign key.

office_info (id, office_id , office_name)

6. Table Name: designation

Purpose: To record current designation Information.

Field	Type
id	varchar(20)
Designation_id	varchar(50)
designation	varchar(50)

Description: this table contains designation information about an employee. Here Designation_id is the primary key and id is the foreign key.

designation (id ,Designation_id , designation)

7. Table Name: spouse

Purpose: Keep information about spouse.

Field	Type
id	varchar(50)
sp_name	varchar(50)
Sp_occupation	varchar(50)

Description: This table contains information about spouse. Here id is the foreign key.

spouse (id, sp_name, Sp_occupation)

8. Table Name: children

Purpose: Keep information about children.

Field	Type
id	varchar(50)
Children_name	varchar(50)
Children_date_birth	varchar(20)

Description: This table contains information about children. Here id is the foreign key.

children (id , Children_name, Children_date_birth)

9. Table Name: education

Purpose: Keep information about education.

Field	Type
id	varchar(50)
Education_institute	varchar(50)
Degree_name	varchar(50)
Year	varchar(20)
Result	varchar(50)

Description: This table contains information about education. Here id is the foreign key.

education (id, Education_institute, Degree_name, Year , Result)

10. Table Name: in_service

Purpose: Keep information about training information in country.

Field	Type
id	varchar(50)
Training_name	varchar(50)
Training_venue	varchar(50)
date	varchar(20)

Description: This table contains information about in country training. Here id is the foreign key.

in_service (id, Training_name, Training_venue , date)

11. Table Name: foreign_training

Purpose: Keep information about training information in abroad.

Field	Type
id	varchar(50)
Training_name	varchar(50)
Training_venue	varchar(50)
date	varchar(20)

Description: This table contains information about training in abroad. Here id is the foreign key.

foreign_training (id, Training_name, Training_venue , date)

12. Table Name: gender

Purpose: To record gender Information.

Field	Type
id	varchar(20)
gender	varchar(50)

Description: this table contains gender information about an employee. Here id is the foreign key.

gender (id ,gender)

13. Table Name: Marital_status

Purpose: To record Marital Status Information.

Field	Type
id	varchar(20)
Marital_status	varchar(9)

Description: this table contains Marital Status information about an employee. Here id is the foreign key.

Marital_status (id ,gender)

14.Table Name: user

Purpose: Keep information about user authentication purpose.

Field	Type
username	varchar(50)
password	text(50)

Description: This table contains information about user authentication purpose.

user (username, password)

3.1.4.2 Designing the User Interface:

When I design the user interface I concentrate on user-friendly behaviors. Proper command and title is given in every section of PDS.

3.1.4.3 Designing the Forms and their Validations:

3.1.4.3.1 Designing the Forms

For PDS software purpose I design 2 kinds of form. One support Dynamic drop down menu on various field like district, designation etc. Another one is Non Dynamic Drop down menu for regular user. Because for the computer operators, it is very hard to select from drop down menu if menu is too long. It's very hard to find a thana from a list of thana. So sometimes drop down menu causes problems. As operator's typing speed and correctness is too high, that's why I design 2 kinds of form.

Advantage of Dynamic Drop Down Menu:

- Correct spelling
- Structured input

Disadvantage of Dynamic Drop Down Menu:

- Difficult to find any individual entry if menu is too long.
- Time consuming.

Advantage of non- dynamic Drop Down Menu:

- Faster input

Advantage of non- dynamic Drop Down Menu:

- Incorrect data entry.

3.1.4.3.2 Validation:

In the design phase I consider several types of validation in the data entry process.

- Validation on various field's data input. Like Govt. id must be integer type, date must be DD-MM-YYYY format.
- I use dynamic drop down menu so that user is bond to give perfect data. The predefined data is collected from various standard sources. Like there is only 2 kind of CADRE type in fisheries. One is Fisheries CADRE and another one is non-CADRE. So no user can enter invalid entry.
- All post is predefined in my dynamic menu system. That's why no ways to enter wrong post name.
- My data entry scheme is divided into 9 steps. So when operator will give input, he/she will be notify in every step that data storing properly or not.

3.1.4.4 Report Generation:

Reports are generated based on following database queries.

3.1.4.4.1 Database Queries

- Find an employee by Govt. Identification Number and view all information.
- Find an employee by Name and view all information.
- Find an employee by Present Posting and view all information.
- Find an employee by Home district and view all information.
- Show children's information by name
- Show children's information by ID
- Show spouse's information by name
- Show spouse's information by ID

- Show In-service training information by name
- Show In-service training information by ID
- Show Foreign -service training information by name
- Show Foreign -service training information by ID
- Show Foreign -travels information by name
- Show Foreign -travels training information by ID
- Show Education information by name
- Show Education information by ID
- Generate a Report on LPR list in the selected Year
- Report on BSC CADRE list
- Report on officers (Location wise or Designation wise)
- Report on a Particular In-service Training?
- Report on Particular Training in abroad?
- Report on Country Visited list?
- List of Employee Who's Spouse is in Service

3.1.5 Phase 5 Testing:

In this phase test samples are shown with result.

Fig 8: User Authentication System

Fig 9: Main Window of the Software

REPORT GENERATION PAGE

- Generate a Report on LPR list in the selected Year
- Report on BSC CADRE list
- Report on officers (Locationwise or Designationwise)
- Report on a Particular Inservice Training ?
- Report on a Particular Training in abroad?
- Report on Country Visited list?
- List of Employee Who's Spouse is in Service
- Who have Visited a Particular Country?

Fig 10: Report Generation Options

Report on BSC CADRE list

Find all [BCS (Fisheries) ▼] officer in [Dhaka ▼] Division [Search]

List of BCS (Fisheries) CADRE in Dhaka Division

Name:	Designation	Thana	District	Division	
MD. MUKLESUR RAHMAN CHOWDHURY	Senior Upazila fisheries officer	Narayanganj Sadar	Narayanganj	Dhaka	details
Nasiruddin Md. Humayun	Assistant Director	Dhaka metro	Dhaka	Dhaka	details
PARIMAL CHANDRA DAS	Senior Upazila fisheries officer	Nandail	Mymensingh	Dhaka	details
SK. MUSTAFIZUR RAHMAN	Assistant Director	Dhaka metro	Dhaka	Dhaka	details
Syed Arif Azad	Assistant Director	Dhaka metro	Dhaka	Dhaka	details
FARIDA BEGUM	Chief Extension Officer	Dhaka metro	Dhaka	Dhaka	details
Md. Mahbubul Hoque	Deputy Director			Dhaka	details

Fig 11: Report On BCS CADRE or On Non-CADRE Division wise.

Pls Enter a Country Name:

india   Search

Report On Country Visit, Country Name :india

Purpose	Year	Name	Designation
		Nasiruddin Md. Humayun	Assistant Director
Visit the holy place	2001	Syed Arif Azad	Assistant Director
Conference	1996	A.K.M. AMINUL HAQUE	Senior Upazila fisheries officer
Religious Visit	2000	Md.Serajul Karim	District Fisheries Officer

Fig 12: Report On Country Visited List

Pls Enter a Training Name:

foundation training   Search

Report On Training Name :foundation training

Name of Training	Year	Name	Posting Designation	Posting District
Foundation Training Course	1986	Nasiruddin Md. Humayun	Assistant Director	Dhaka
Basic Foundation Training,	86	SK. MUSTAFIZUR RAHMAN	Assistant Director	Dhaka
Foundation Training	1986	FARIDA BEGUM	Chief Extension Officer	Dhaka
Foundation Training	1998	Md. Abdul Khaleque	Deputy Director	Rajshahi
Foundation Training	1990	Ramesh Chandra Mandal	Deputy Director (Quality Control)	Dhaka
Foundation Training	1989	Md. Anisur Rahman Bhuiyan	District Fisheries Officer	Natore
Foundation Training	1989	Md. Abdul Mannan Mian	District Fisheries Officer	Jamalpur
Foundation Training	1989	Md. Shah Nawaz Munshi	District Fisheries Officer	Gaibandha

Fig 13: Report On in-service training.

Pls Enter a Training Name:

short   Search

Report On Training Name :short

Name of Training	Year	Name	Posting Designation	Posting District
Short Summer Course for Bangladeshi Fisheries officers.	1993	MD. MUKLESUR RAHMAN CHOWDHURY	Senior Upazila fisheries officer	Narayanganj
Aquculter Training Under Summer Short Course	1992	PARIMAL CHANDRA DAS	Senior Upazila fisheries officer	Mymensingh

Fig 14: Report On foreign training.

List Of LPR For the Year 2010

Name:	Designation	Thana	District	Division	Date Of Birth	
Md. Abdul Khaleque	Deputy Director		Rajshahi	Rajshahi	20/7/1953	details
Md. Rafiqul Islam	Principal Scientific Officer (Resource Survey)	Dhaka metro	Dhaka		5/1/1953	details
Md. Shah Nawaz Munshi	District Fisheries Officer		Gaibandha		1/2/1953	details
Muhammad Ali Azam	District Fisheries Officer		Faridpur		1/1/1953	details

Fig 15: Report On Retirement Date

3.1.6 Phase 6 Implementation:

I coded the system according to the design specification. Test the new system and after the successful testing install the system in DoF. Then prepare the Documentation for the System.

3.2 User Feedback:

When I demonstrated the final software, I request one of the employees to run the software after a very short presentation. Then I let other employees to give direction to him according to their requirements and the software was working properly according to their initial requirements.

But there are many things about HRM, which is not included to my software and they feel that they need those facilities in the future.

CHAPTER IV: SECURITY ISSUE

Security issue is one of the burning topics now a day. As the system deal with all personal and official information, so it should be protected from unauthorized handling.

4.1 Authentication:

In order to access any part of the software, user must have to go through login form. So it restricts unauthorized access of data. Here I use the session variable of php, which is a very popular and secure way of authentication.

4.2 Web Security:

All pages of the software are enclosed in session management system. Multiple users can access the system at a time but everyone's task will not conflict with each other's. Even one is not allowed to access other's area. Moreover web server secures the whole system, so that no one can access the main database.

CHAPTER VI: RECOMMANDATION AND FUTURE IMPROVEMENT

6.1 Recommendations About PDS:

My work was just a starting of automated Human Resource Management System over there. It is still in the very initial level. So in order to improve this software, more afford needed. And as it is database software, data must be updated when any employee's information changed.

6.2 Future Improvement of PDS :

This Human Resource Management software can be implemented in all Govt. Departments of Bangladesh. But need more works to make this software efficient and effective one.

In this software organization hierarchy is not given. So it can't tell which post is vacant. It only tells that who is in which post. So in the future this portion can be improved.

6.2 Recommendations About DATA Transfer Module:

The data transfer part must be automated to get maximum output from the MIS Systems. My recommendations are given below,

- They can write such software, which can transfer data pc to pc and that will run under offline mode. User's pc will be connected to server pc and then data will be transferred. Proper acknowledgement should be send to the user.
- They can write a program which will mail or transfer data to the head office automatically. If that is online enable program, then that program will automatically connect to the Internet. So user doesn't have to worry about connectivity. User will notify if data send successfully and connection will be disconnected. File transfer protocol (ftp) can be used.
- Another solution is in the website of DoF, they can keep a file upload script. Which will allow only authorized user to upload data. File will be checked for virus before upload to the main server. Here user have to connected to the Internet and go to the website. And upload script. User will notify after successful transfer of data

CHAPTER VII: CONCLUSION

Automation is a continuous process. Every system is developed with time and requirements. When Employee will continuously work with that software, they will get new requirements, which are not included so far.

The system, which I implemented, is such a system that needs always-updated information. In order to get secure, efficient and sustainable output from the system, it's necessary to keep system up-to-date. If some more efforts are given to the software then this can be a effective and efficient solution for their Human Resource Management System.

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