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DR. PANJABRAO DESHMUKH POLYTECHNIC, AMRAVATI.

Project Name

"HUMAN RESOURCES AND PAYROLL MANAGEMENT SYSTEM"

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Academic Year

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CERTIFICATE

This is to certify that project thesis entitled **"Human Resources and Payroll Management System"** is delivered and report is submitted by **Sejal Sanjay Sahare**, **Shreya Chandrashekhar Kadu, Soniya Santosh Motwani, Priya Nilesh Adatiya, Sanskruti Pravin Rane** as the partial fulfilment of Diploma Course in Computer Engineering of Dr. Panjabrao Deshmukh Polytechnic for the subject Industrial Project during the academic year 2021 – 2022.

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- Shreya Kadu
- Soniya Motwani
- Sejal Sahare
- Sanskruti Rane

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CHAPTER 1

INTRODUCTION

1.1 Brief Background

One of the business processes in the company is the human resource cycle and payroll which consist of several business processes, such as the process of recruiting, training, paying, evaluating, promoting, and laying off employees from the company. Human resource information systems make it easier to store and analyse human resource information, with a self-service system enabling employees to access frequently accessed information, such as personal date, salary, benefits, training and deductions easily. Rahimzai and Teruhiko, in their research applied a web-based Employee Self-Service module that allows employees, together with professionals in the human resource department to manage employee databases. Generally, digitizing HRIS has produced a well-integrated HR database and built in a coordinated way using software database management techniques.

A Human Resource software, is a software designed to centralize and automate various human resource tasks. A human resource software gets rid of all manually operated functions to calculatable, time saving, accurate information. This kind of software yields efficiency and productivity in a human resource department. It enhances the overall employee department by automating workforce, payroll, compliance and recruitment management. In an organization, Human Resource department is one of the most valuable and integral departments. Almost every organization with a substantial amount of employees, does have a HR department and has the potential to induce development in overall business through this department. To ensure 100 % profitability through the increase in the level of output of employees a Human Resource & Payroll software becomes a crucial catalyst in a cooperate set up.[1][2]

Human Resources and Payroll are two very important and distinct functions of a business organization. However, in many organizations these two functions overlap or the two functions are performed using the same system or a single person. These two functions are often at use together for an outcome; hence they go hand in hand in many HR related tasks. A human resource and payroll software, automates the basic administrative tasks of an organization. The first and foremost task of kind of software

is to convert manual task and filings into electronic filing system. This transition helps to lessen information errors, losses and leaks. Furthermore, a payroll software automates the process of paying employee salaries based on the daily, hourly or monthly basis payroll system. Not only salaries, a payroll system manages the filing of employee taxes, keeps track of working hours of an employee, calculates wages, delivering checks, employee tax payment of the government, completing direct deposit, insurance payment and many more.

The proposed system built is a Human resource Payroll Management System for Mikano International Limited. The Human Resource department, will use this system to replace the current manual system. The staff of the Human Resource Department, Accountants and Head of Department will be the end users of the system. Head of Department monitor attendance timesheet for every staff in his or her department. Also, the account department generates payment reports with an outsourced software called PIMS (Profile Integrated Management System).[3][2]

The proposed Human Resource Payroll Management System can handle and manage complex calculations that would otherwise have been prone to errors. For example, the system accurately deducts or adds to the basic salary based on the absent hours or overtime of each employee. The user of the system just has to input required field in the form and allowance advanced, deduction and others will be generated.

When the new system is implemented, payroll management will be easier and more efficient. This computerized system will improve the company's service to her staff. The system stores all records in a database. This will improve data integrity and security.

1.2 General Description

An HR Payroll Software is beneficial for any kind of business enterprise. Human Resource department performs various activities such as payroll processing, maintaining salary details of every employee in the organization, keeping track of deductions, time and attendance, loans, allowances and bonuses. For a huge workforce, maintaining a manual HR and payroll system is quite impossible to manage. As often organisations design different kinds of employee salary packages for different departments. Payroll administrators can maintain personalised portal for each

employee, regularly updating their management of wages, loans, taxes, etc. Many payroll systems include self-service options for the employees to view and download payroll checks and edit or submit necessary information based on access control functionality.

Streamlining workflow management of large workforces becomes easy with a HR and Payroll Software. A large workflow maintains varieties of work schedules often including overtime and overtime payment. The workflow of employees never gets unseen by the management, if a HR software is at work in an organisation. A manager can always track the assigned task progress, monitor and evaluate work and reward the best performer of the team. Employees get full credit for their overtime work and evaluations can be done by managers based on workflow analytics hence making the system of the organisation streamlined with improved decision-making quality.

The HRMS and Payroll Specialist is responsible for ensuring the integrity, accuracy of the HRM system in compliance with various governing bodies and for the payroll function. The incumbent coordinates the implementation and maintenance of the HR Management System and constantly monitors system performance to identify process that need improvement. The incumbent performs system testing implementation of updates and controls system security and access. The HRMS and Payroll Specialist is also responsible for the processing of Payroll for all staff in Ottawa, Ottawa-hired staff in Regional Offices (expatriate staff) and oversees payroll services for Locally Engaged Staff (LES) in the regional offices. [4][5]

Payroll Management System is the system by which an employer can manage the salaries of the employees. The salary structure includes salary, allowances, deductions, and net payable to the employees. It also deals with the generation of pay slips. Complicated Computations that are performed manually can be automated using the payroll software.

Every company will have different departments like marketing, finance, information technology, research and development, human resources. Human Resources department is the crucial part of any organization because employees are considered as the real assets and also the HR department needs to look after the employee welfare and make the facilities easier. With the increase in competition among business enterprises. Human Resources are considered to be the most important

part of any company. It is said that if any company has a Human Resource, then it will definitely have many advantages. This is the reason, why the importance of the HR Department is increasing day-by-day. With the continuous advancement in the latest technologies, the management of employees and their records have become tough to handle. To prevent this, many companies have linked their payroll system with the HR activities which is called as payroll management system.

An HR Payroll Software is beneficial for any kind of business enterprise. Human Resource department performs various activities such as payroll processing, maintaining salary details of every employee in the organization, keeping track of deductions, time and attendance, loans, allowances, and bonuses. Human Resources department collectively works together to calculate the available leaves, encashment of leaves and loss of pay for all the employees and then process their salaries.

1.3 Technical Description

In our project HR and Payroll Management System, we have used Visual Basic as our front-end language. Visual Basic is regarded as the third-generation event-driven programming language. It was released in 1987. Being the first visual development tool from Microsoft, it is considered as one of the most powerful programming languages. As compared to other programming languages, such as, C, C++, it is easy to learn and understand, provided that one has determination and dedication to do so. Visual basic programming allows programmers to create software interface and codes in an easy-to-use graphical environment. VB is the combination of different components that are used on forms having specific attributes and actions with the help of those components. On the one hand it allows programmers to develop windows-based applications rapidly; on the other hand, it helps greatly in accessing data bases, using AOD. [6][7]

As compared to other languages, Visual basic may be slower though, yet it is flexible and it can be rightly said that things that are difficult in other languages are comparatively easier in visual basic programming language. One of the most important things to be considered with regards to programming in Visual Basic is that structure of VB is designed in a way that allows programmers to create executable code – Exe files. It enables programmers to develop programs that can be used as front-end to databases. Besides, it's with the help of visual basic tools, one can change the abstract

ideas into programs or into the whole software while it allows revising and modifying the programs fittingly. There are some roles / responsibilities/ duties of HR and Payroll, which are listed below: [8][9]

Primary Duties and/or Responsibilities of Human Resource:

- Provides relevant production support, which includes researching and resolving problems, including performing system testing for implementation of updates.
- Coordinates and implements changes to the payroll system in cooperation with the service provider and other internal stakeholders (Finance, IMTD, etc.) to ensure timely and accurate deployment of policy and collective agreement changes as well as system enhancements.
- Maintains the configuration of the payroll system to ensure compliance with IDRC payroll and benefit policies and collective agreement, as well as maintains accurate information on organizational structure changes and staff movement in IDRC.
- As required, develops and/or interprets specifications for interfaces with other systems. Coordinates interface projects with IMTD and/or vendor system. Tests and implements interfaces.
- Manages all modules in the HRMS system (Benefits, Time and Attendance, Workflow, Learning, Talent, Health and Safety etc.), resolves technical issues and answers questions from staff on these matters.
- Performs data analysis to ensure the system is properly recording specific metrics.
- Develops, configures and produces various official and ad-hoc reports for Government departments, IDRC Board and management and the People and Corporate Culture division.
- Creates the appropriate user documentation and procedures in collaboration with other specialists within the division.

Primary Duties and/or Responsibilities of Payroll Processing:

Ensures the accurate and timely preparation of biweekly payroll using the payroll system for all Canadian National and expatriate staff. More specifically:

- Analyses and verifies all documentation received to process employee payroll.
- Ensures data integrity through cross-checking and auditing others' work that affects employee pays such as verification of forms and documents initiated by non-payroll employees.
- Validates that timesheet information entered by casual employees has been approved by their manager.
- Calculates and processes: Statutory Holiday pay for casual employees; quarterly Governor Honoraria payments and retroactive adjustments to salaries and benefits.
- Prepares Record of Employment (ROE) and provides employee information regarding Employment Insurance (EI).
- Coordinates direct withdrawals, remittances and deductions ensuring the transfer of funds to external agencies, governmental departments and insurance companies.
- Ensures accuracy of final payroll calculation.
- Assists staff and managers with reconciliation of actual costs versus budget by providing detailed breakdown and analysis of payroll-related charges (salary, allowances and benefits).
- Reconcile pension remittances for Ottawa based and overseas employees, complete superannuation forms, calculates pension adjustments and ensures that all pension information is accurate.
- Administers employee receivable accounts and ensures recovery of monies owed.
- At fiscal year-end, calculates merit increases, variable pays, lump sum payments, pension contributions and salary and severance accruals.
- Prepares leave without pay estimates and reconciliations every quarter and verifies T4 information prior to the issuance by the service provider; runs year-to-date adjustment pays required; produces statement of earnings of all non-Canadians overseas employees.

Accounting and Payroll reporting:

- Provide accurate reconciliation of all payroll entries, calculate and adjust accruals.
- Prepare payroll remittances and perform reports for the general ledger on a monthly basis.
- Generate monthly General Ledger (GL) entries using the payroll system by preparing monthly payroll and accounting journal entries, adjustments and corrections, verifying financial coding, ensuring data integrity and following internal accounting rules and policies.
- Reconcile all Payroll liability accounts in General Ledger.
- Review and approve all remittances to Government and benefit carriers.
- Reconcile annually Employer Health Tax (EHT) contributions, Public Service Management Insurance Plan and Public Service Health Care Plan insurances and various Canadian and overseas insurance reports and Maintain the General Ledger setup and reporting in Dayforce.

Specialized HRMS and Payroll Advice:

Advises colleagues, employees and management on the administration of Human Resources data to ensure integrity and compliance with regulatory agencies.

- Uses expertise in systems and payroll to advise how to combine data management with the needs of IDRC.
- Monitors adherence to legislation regarding income tax, pension and benefits; researches and remains current with applicable legislation and recommends to management the necessary actions to remain compliant.
- Coordinates internal and Office of Auditor General (OAG) audits and evaluations of the HRMS and payroll systems and follows-up on recommendations.
- Coordinates the Emergency payroll processing activities in case of Business Continuity Preparedness in order to ensure that the payroll will be available in a timely manner following an incident.

1.4 Similar software in the market

In market there are many software's available for management of HR and Payroll System. In that software they provide company details, employee information, payroll management, employee appraisal, employee training report, payslip printing, etc. Also, they provide how to access the particular page/ screen related to that software. The popular and similar software available in market are listed out as follows:[10][11]

1.4.1 BambooHR

BambooHR is a comprehensive small business HR solution that also includes ATS and onboarding feature. Creates a custom careers page for websites and syndicate job, posting across glass door, indeed, linkdln, craigsliat. Social media sharing tools make it easy to post the application link to your company's social channels and reporting features show you how candidate hear about the opening. Once you've found a good match, you can send white labelled offer letters and have new hires sign employee contract digitally. This software may not offer an end-to-end HR solution, but it does offer a top-rated recruiting software that's small business-friendly. [12][13]

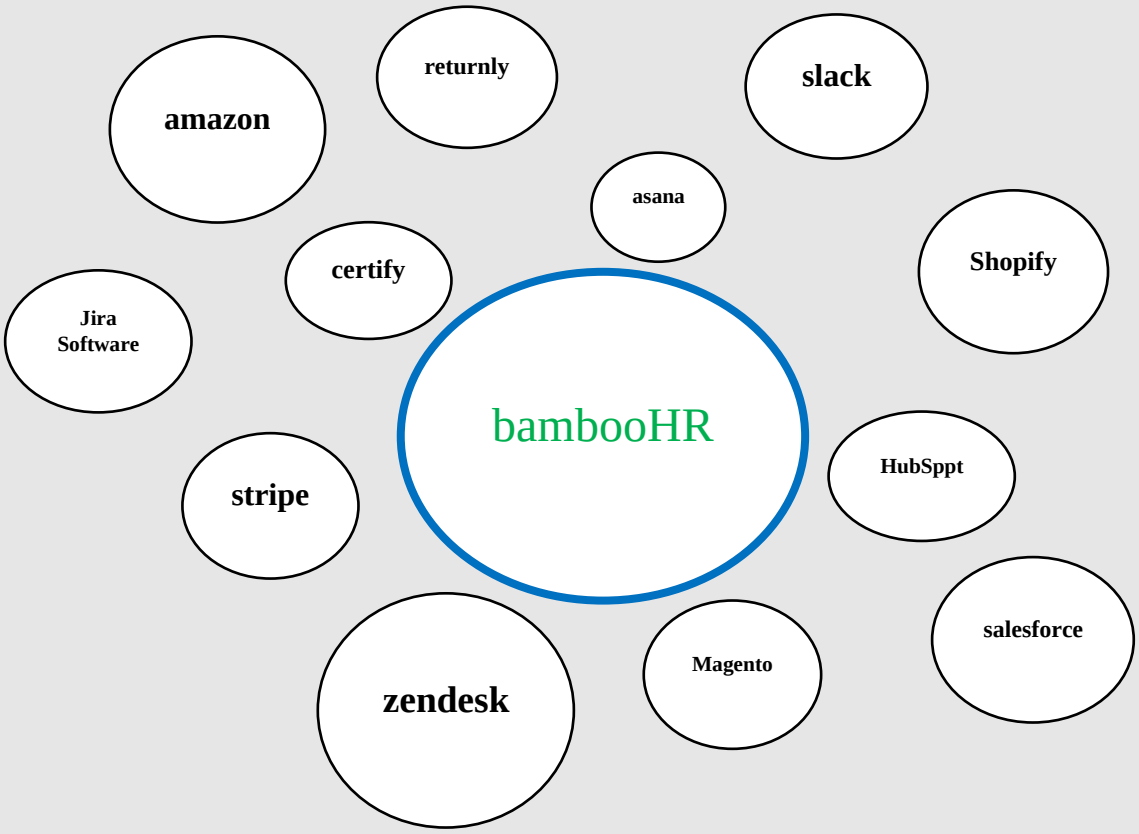

Fig 1.1 BambooHR

1.2 Time and Attendance Software

Time and Attendance System helps to streamline employee attendance & boosts employee productivity in the workplace. Time and Attendance Management Software provides improved efficiency, accuracy and productivity to the resource management and HR process in the organizations. This system has inbuilt Roster management and also tightly integrates with access control systems to provide employee attendance and overtime information and generate exceptions to their respective departments, HR and Payroll systems. It is customizable to fit your workplace needs. Track employees present in the workplace, who are on leave and their work hours all at one place. It takes care of employee attendance allowing the HR and line managers to focus on other business priorities.

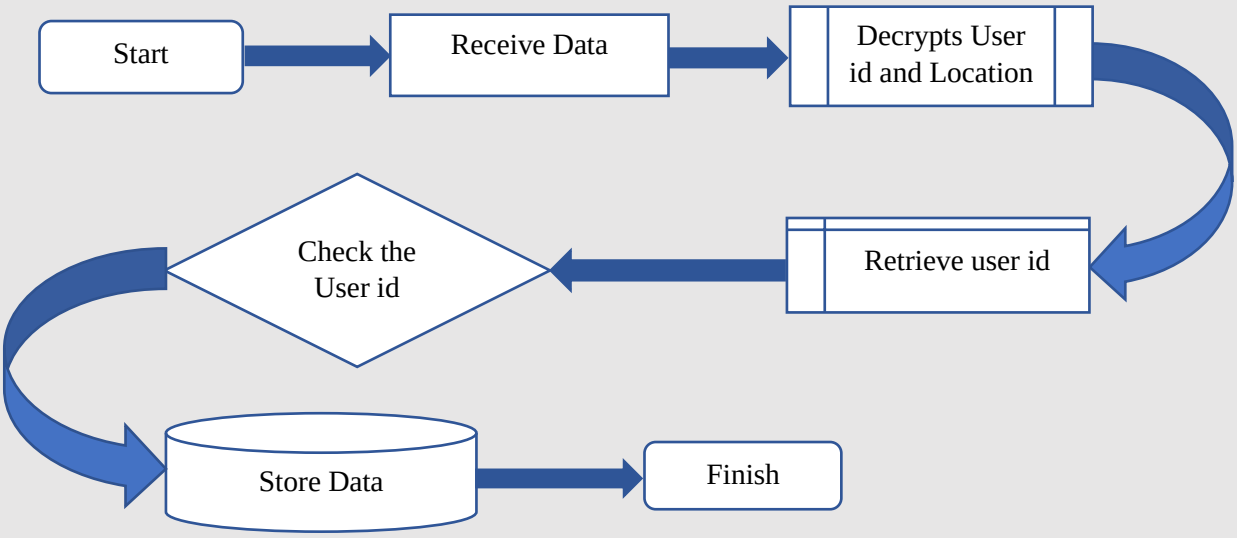

Fig 1.2 Time and Attendance Software

1.5 Architecture / block diagram of the project

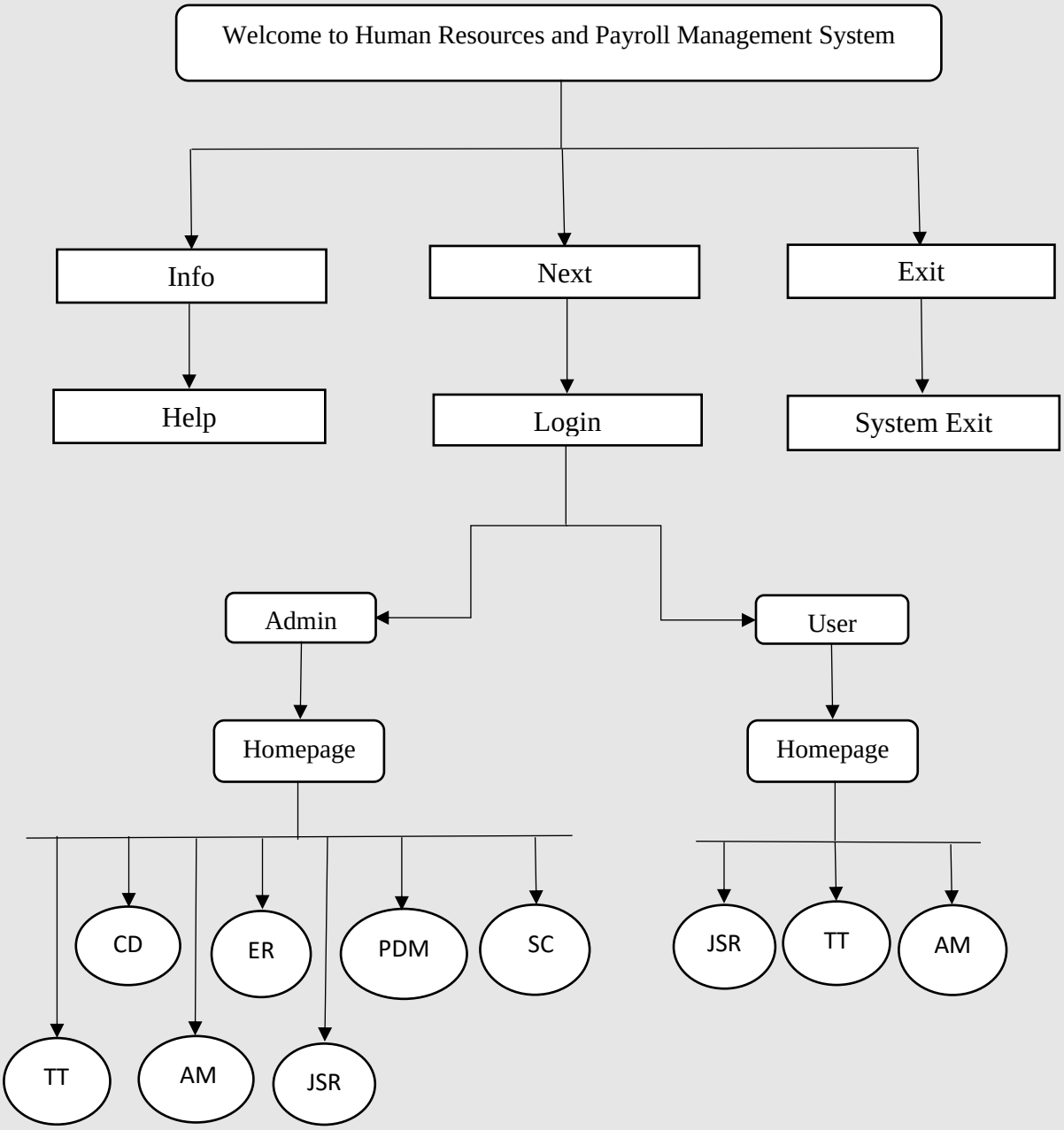

Fig. 1.3 Architectural diagram of Payroll System

Summary:

In this 1st chapter we have described about the brief background, technical description and general description about our software i.e., HR and Payroll Management System. Also, we have mentioned about the related software in the market with the help of representative diagram shown above.

CHAPTER 2

REVIEW OF LITERATURE

Anupama Gupta (2010) explained the consequences of the challenges faced by the Human resource management in context with the current economic status and the challenges faced should be taken in consideration. This article insists on the challenges in the short fall of talented employees. This also emphasis on how Human resources Management tackles the problems handled on a day-to-day activity. It also suggested some important points to handle things better. It also described the challenges faced by Human resource manager in the context of new economic scenario. This review emphasized that these challenges should seriously be taken care of. The challenge is the shortage of skilled manpower. It was the duty of the HR department to design a possible career path to retain talent. It was also suggested that HR manager should be ready to handle the challenges, but the role of other stakeholders should also be included in order to ensure the healthy survival of the organization. [14][15]

Saini R.R. (2010) this article explain management in United Commercial Bank which is a case study of Chandigarh State which elaborates HRD rules and regulations. This study identified the process and problems in designing and implementing Human Resources Development Systems. This study was analytical in nature and consist a sample of 100 respondents to analyze their opinion about HR Policies and Practices. The important findings of this study were, qualification was the most important factor of recruitment at all levels of managers and employees. Basically, this study explains and hurdles in the process off framing the rules and process of executing it. This analytical study contains a sample size of 100 people and analysed their opinion about HRD rules and regulations. As a result of this study is qualification plays an important role in recruitment in top, middle and low-level management. The practice of selecting right candidate for the level of management helps the organization to achieve more and retain employees in the organization. It also concluded that the problem-solving strategy of the organization was very effective because all appropriate method has been used to solve problems. Negotiation and Union involvement was the most prevalent used method to solve the problem. This study also observed that the managers were not aware sufficiently about the functioning of HR Systems. Therefore, a proper action plan

to improve awareness, motivation & serious concern among managers about HR should be implemented. [16][17]

Kundu. Subhash C., Divya Malhan (2009) in their article on human resources management practices in Insurance Companies. The study was made in India and MNC's and explains the benefits of organization is generated only by Human Resources. However, the advantage of giving insurance to the Human Resources is one of the employee benefits issued by the Human Resources Management, it also had competitive advantage that can be generated from HR and company performance is influenced by a set of effective HRM practices. The findings of the study says that both domestic and international Insurance companies have to improve more on their HR practices like performance appraisal, HR planning and Recruitment. It results indicates that both multinational companies and Indian Companies have to significantly improve their practices regarding training, financial benefits, etc. the service sector is human resource intensive business. To gain competitive advantage, service organizations should emphasize on human resource management practices, benefits not only the organization but also the employee. HR policies of the organization benefit the employee by providing better opportunities for growth in terms of better compensation, benefits training and development opportunities and career management, in turn leading to job satisfaction and self-fulfilment.

Tripathy (2008) explained that the organization have the optimum usage of Human resources in the organisation. They follow the 3C concept (i.e.) Competencies, commitment and culture. By following these 3C culture in the work organisation give the positive results in the organisation. He also observed that an organization can have competitive advantage by utilizing its human resource. This can be achieved through sound HR practices. An optimum level of progressive climate is essential for facilitating HR in an organization. It was resulted that good HR Practices can influence financial and other performance indicators in the organization.

Singh S.K (2008) in the study he explained that for a good organisational growth employee should maintain their involvement to yield high productivity. Employee's dedication helps him to achieve his target, and increase his quality of work. Organisation should also help the employee in training him to develop his interpersonal

skills. Both Employer and Employee should equally contribute each for individual's growth.

Patil, Kallinath S. (2007) The development of facility management industry has an important place in the growth of the country. Life Insurance Corporation is one of the major service providers in which they provide the best service. The Transmission dosen't come in a day. For that employee have put in lot of efforts to bring the service in the field of services. To achieve hi target, and increases his quality of work. Organization should also help the employee in training him to develop his interpersonal skills. Both Employer and Employee should equally contribute each for individuals growth. [18][19]

Hemant Rao (2007) in his study he explained the changes in the role Human Resources. There was an extraordinary change in the role of Human resource department. They should work in the organisation such that they should treat the employees irrespective to cast, religion, gender etc. The productivity of the company is based on the quality of work done by the employees in the organisation.

Sharma and Jyoti (2006) in this article they have explained about the Job Satisfaction that they finalize it the best and effective reason for an employee in the working situation. They also explain that this emotional factor helps the employee in the organisation to yield best results. Dissatisfaction is one of the main reasons for attrition of employee in the organisation. So, job satisfaction is the primary reason of an employee's carrier growth and development of an organisation.

Subramanian, V. (2005) he expresses that the recruitment and selection process in the organisation and selecting the right candidate for the correct position helps employees to work in the organisation in a very positive mode. The interview process should be relevant to the job profile so that the candidates will be interested in the job profile.

G.V. Chalam and L. Srinivas (2005) in his article he has made a Human Resources Department survey across 120 branches of State Bank of India at Andhra Pradesh, and defines the gender where he papers made an attempt to explore the basic gender difference. He finds that the women employees have much more concern that the male employees. Female employees have higher attitude of respecting the organisation and

Human resource department. They also have good source of Loyalty towards Bank work.

Maitin, T.P. (2003) In his study he explains the Human Resource Development shows the progress of the organisational growth with different process like recruitment and selection, payroll processing and maintains the rules and regulations of the office. By the way of best approach towards the employees which is in the high productive of the employees.

Vishal A. Salokhe (2002) in her study he explained the Human Resource department have several processes to improve the employee's individual growth in the organisation. It also helps the organisation to achieve more in the profit with their effective smart work. Employees are the asset of any organisation which they make profit out of them.

Mishra and Bhardwaj (2002) in his research he made an empirical study on the Private companies and their nature of work in Human resources department. A random sample of 107 managers with different levels like low level, middle level and top-level management are taken into consideration. A questionnaire was circulated to them to know about the Human Resource department and analyzed. As a result, the situation present in the HRD is satisfactory. [20][21]

T.V. Rao (1999) the study in hi book explains that the conducted describes the methods and ideas which have to be implemented in the Human Resource Audit. His framework helps to estimate the different criteria like core competency, culture and value of the organisation. By evaluating the employee's interpersonal skills, they can improve in some of the factors which are they lacking in the system. They also have broadminded people in the top-level management which helps the low and medium level employees to know about their concerns. So, they each and every employee in the organisation helps them to achieve more by increasing the productivity.

Udai pareek & rao (1999) in his study he explains that the limitations of Human Resource Department where they need to improve in the personal growth of employee and the organisation. In his he elaborately explains about the importance of the training and Development, HR Audit, Planning and Development, Organisational Behaviours. This also gives the lots of information about the Educational Institutes and lot of professional people.

Venkateswaran (1997) explains in his article about how Human resource Department helps the organisation in their financial growth. For that he made an empirical study by collecting data from a sample of 132 executives of a private organisation. This study helps to know how the HRD works in the organisation and how for employees are benefited out to them. As a result, the HRD works in better way how such that employees are more much comfortable in the rule and regulations of the organisations. This also helps the organisation to maintain a good decorum.

According to "Steven m, Bragg" (2011), payroll management is designed for both professional according accounts and students. Since both can benefit from its detailed descriptions of payroll systems, control, procedures and regulation. Payroll Management shows you how to manage such key department systems as employee time tracking, payroll processing and paying employees, while also describing United States payroll regulations and reporting requirements related to compensation, benefits, payroll taxes, and tax remittances. There are separate chapters showing how to account for payroll transactions and how to set up a system of procedures, controls and record keeping.

According to Chetan wain (2014), payroll being the most vital part of HR generalist have maximum number of jobs to offer and make enable them to handle payroll calculation of employees independently. Payroll is becoming the best crucial component of HR generalist have optimum quantity of employment to provide as well as generate allow them to deal with payroll computation of workers on their own.

Ajit Yadav (2014) said that payroll is also incredibly important to its recipents: employee of a company. Employee moral can be negatively affected by errors and irregulaties in payroll, so an organisation must distribute payroll in an appropriate manner. He claimed the payroll can also be amazingly crucial that the recipents of its: worker of a business. Worker moral could be adversely afflicted with irregulations and also mistakes in payroll; therefore, an organization should send payroll inside a proper fashion.

According to the researchers Aguilera Bronzas and Marqueses (2010) a great payroll is really one of the most important issues to pay attention is almost every company. It is impossible to handle payroll responsibilities with a pen, ledger sheet and

calculator, but nowadays it is more convenient for most companies to use computerized payroll software. [23][24]

According to the researches Alvarez, Aldrine, Gecolea (2014) uses a biometrics with online data analytics dashboard to give krizalen enterprises an efficient payroll system that can automatically monitor the attendance and trip tickets of the employees, drivers and helpers with the biometrics technology and data analytics that would help them in the security and accuracy of the company payroll and information. Summing up the past situation of payroll inside krizalen enterprise, there was nee for a system that could help them with employee information management attendance, monitoring, payroll processes, and assistance for the manager decision making. With this idea, the proponents conducted a study for the development of software that can minimize data redundancy, inconsistency, and manipulation. Employees can view their current pay and review their information from the database. And with updating of the employees can view their current pay and review their information from the database. And with updating of the reports that can be viewed through the internet, the manager can view the recent activities within the proposed system.

According to the university of California (May 15, 2016) in modern world there are many systems that are implemented to some industries in order to improve manual transaction of the university. As new generation comes, a new technology has developed to provide the users to fast and reliable transaction. This study tells the use of computer that will lessen the time and efforts for updating and other ways of processing in accurate ways. Our purpose system is for the Faculty Member of Cavite State University Silang Campus which we got curiosity on how the Faculty Members make a process that is why we make a system that we hope it might help a lot for the Faculty member. We are going to develop this system to improve our skills and make it useful for other especially with our target client. Biometrics has long being touted as a powerful toll for solving identification and authentication issues for immigration and customs, physical security and computer security.

Thompsom.S.H.Teo (2007) examined the relationship between innovation, organizational and environmental characteristics, for adoption of HRIS. The result indicated the organization size has a significant relationship with the extent of HRIS adoption. In a study Tim Smedley (2007) from Canfield School of management report,

studied 10UK organizations to study the impact and advantage of HR and Technology. The study concluded that HRIS empowers the line managers performance in improving the quality of information, reducing administrative burden etc.

According to Kenan Kalagho writer of Business weeks in Dar Es Salaam, Tanzania the Payroll System saves Tanzania's Government $927 Million. The government is currently saving some $927 million. (Tsh 1.5 billion) after introducing a new payroll system. Speaking in Dar es Salaam last week, the Assistant Director in the president's Office, Public Service Management Peter Mushi said: "We have been able to solve to a larger extent issue of ghost workers where the government was losing a lot of monies in salary," Mushi said. He said the new system allows managers to a monitor any changes that have been made on an individual's information. Most countries in the region are battling with the issue of ghost workers which has been costing government dearly. Mushi said the money saved is being used for other government development project. The system has helped the government to eliminate and save cash in terms of salaries to some 34,645 public servants from government payroll who were either already retirees or were already demised but had their monthly salaries updates in the former system.[26][27]

According to Aishwarya Gupta (2013), AMITY University UTTAR Pradesh that develop a system entitled with employee Payroll System is an application that enables users to create Republic of the Philippines and store employee's records. This application is helpful to the organization as it maintains data of employee's related to that organization. Java is used to create this application as it is a platform independent language and can be used on a standalone machine as well as on a distributed network. Furthermore, applications developed in java can be extended to the Internet based application. Thus, java was chosen to do the front-end task to design this application. That insisted the benefits of the application easy calculations.

According to the Department of the Interior's Interior Business Center the Federal Personnel Payroll System (FPPS) is a modern, mainframe-based, portable, integrated, on-line, and real-time personnel and payroll system. The system provides personnel and payroll support to numerous agencies. The system is customer-driven, creating and generating the full life cycle of personnel transactions, enabling agencies to maintain records electronically. FPPS handles all current regulations including specialized pay,

garnishments, special appointment programs, and more. FFPS was developed by the Interior Business Center (IBC) using state-of-the-art database technology, fourth-generation language, structured development methodology, and computer-aided software engineering tools for robust performance and ease of maintenance. FPPS is a highly sophisticated and comprehensive database management system providing an extensive array of human resources (HR) and payroll automation support within it's core, including requirements prescribed by client agencies, the IBC's centralized Payroll Operations Division (POD), and the Office of Personnel Management (OPM). The FPPS application supports Requesting Office, Time and Attendance (T & A input), Servicing Personnel Office, Security, Time & Attendance Maintenance, and Pay Maintenance commands for Federal employees and Emergency Workers.

According to sunstar.com the City Accounting Department of Cagayan De Oro City has introduced an upgraded computerized payroll system for permanent employees in a bid to improve its services and maximize resources. "This project, which was conceived two years ago, basically aims to improve our services particularly in the processing of payrolls for permanent employees", City Accountant Wilma Polley-Rugay told payroll in-charge of the different departments and offices at City Hall during a briefing and orientation on the concept of the one-month payroll system held Friday last week at the City Council session hall in Cagayan de Oro City. With the added features of the new computerized payroll system, Rugay said the preparation, processing and payment of payroll system to permanent employees would be hastened and fasttracked.

According to Glenda Manahan (December 13, 3013), to develop an Attendance Monitoring and Payroll System with Biometric and SMS for easy and secured way of monitoring staff attendance, plotting schedules, fast computation of the hours of employee's work, and computerized payroll system that can help the staff to lessen their work. To computerize the traditional way of monitoring employee's attendance with time cards. Another purpose for developing this software is to generate the desired reports automatically at the end of every session or in between of the session as they require.

According to Gary Dessler (1942). "A Framework for Human Resource Gary Dessler. 2nd Upper Saddle River, New Jersey 07458: Melissa Steffens. 1-22. Human

resource management, specifically acquiring training, appraising, rewarding and providing a safe and fair environment for your company's employees. These practice and policies include for instance, conducting job analysis, planning labour needs and recruiting job candidates, selecting job candidates, orienting and training new employees, managing wages and salaries, providing incentives, appraising performance, communication, training and developing and building employee commitment. The human resource of an organization can be considered the most significant input organization utilities. It is through human resource that all others resources are acquired and used. Decisions about human resources tend to directly affect the quality of all other resources. Software development is recognized as being a time consuming and conceptually difficult endeavour. The most difficult part may be in understanding what the system is to do and how it will be done. There are many different techniques to help the developer understand the, problem and to aid in the development of the software requirement document. There are so many project methodology that can be use to complete the project or system. For this project, the water fall model of systems development will be used (SDLC).

Jofre-Giraudo, Streeter, and Lazarus (1990) found out that computerized management information systems (MIS) improved the accuracy, speed, and timeliness of information for processing, which improved the management, decision-making process. They also found that records were updated on a more timely basis and records were kept at a higher level of detail when using MIS. This more accurate and timely basis and records were kept at a higher level of detail when using MIS. This more accurate and timely data allowed more organizations to project their financial condition on a monthly basis, which could help organizations revaluated their production and financial condition situations quickly so that changes in management could be implemented, if necessary. As part of its action plan, a Rwenzori commodity Ltd has introduced a considerable degree of mechanization and computers in their operations and request for the design of a payroll system. The advancement of technology in the operations will make Rwenzori commodities to be more flexible towards dealing with its client and suppliers. It will also greatly reduce the chance of error, fraud and default.

The payroll system implemented by Arjun V. Singh, Siddesh V. Chaphekar, and Yogesh S. Sawant is a desktop based system, which is developed in VB.net as frontend and Microsoft Access 2007 SQL server 2008 as backend. The base of the planned

system is a database, which stores all information pertinent to personnel allowances, deductions, taxes and net pay. Features of the planned system are: Importing attendance from Biometric machine, Sending details regarding salary and attendance before finalizing salary, Faculty Management, Overtime Calculation, through mail sending salary slips, HRD programs like offer letter, appointment letter, promotion letter etc, Faculty Birthday notification, generate annual profit-loss of college by using graphs [1]. The payroll system implemented by Kritika Mahajan, Shilpa Shukla, Nitasha Soni is a desktop-based system, which is developed in HTML, CSS and JQuery as frontend, C#, ASP.net is used for backend and for data parsing, JSON and Ajax is used. The software for payroll management system service on the cloud is provided as a solution in this paper. Multiple user data access is provided by the system. Features of this system are: As automatic or computerized calculations are done errors are reduced, more efficient as less time is required, Cost related with accounting software include coaching and program maintenance, Expenses can add up fast with costs for printers, paper, ink and other supplies [2]. The system proposed by Poonamdeep Kaur, Dr. Dinesh Grover aims to explain in simple terms what payroll involves and demystifies the process of payroll. Moreover, it is a powerful tool to streamline the data access for multiple users. As per rights allocated from adding new employee to generate pay slips with clear step by step instructions each user walks through these entire payroll process. Furthermore, the system is flexible to implement changes in pay scales [3]

Improved HR is another great advantage of outsourcing business processes. Several market studies have shown that HR outsourcing can lead to cost savings in the range of 20-40 percent for customers. It also leads to improved HR. HR Business Process Outsourcing (HR BPO) is a market that has experienced extensive growth over the past few years and is now set for even more rapid expansion. This is based on the fact that gradually more companies are looking at outsourcing transactions and processes to create a more strategically focused HR function. Clearly, companies all over the world are getting motivated to outsource their HR processes and transactions to run their HR functions more efficiently, free the HR function to focus on strategic people practices that drive growth and add to the organization's long-term success and facilitate their professionals to add value to their business. Companies today, require complete domestic and global HR delivery through systems and processes that can generate economies of scale to reduce or eliminate their need to make future

investments in quickly outdated technology. Companies can save between 20-40 percent of their HR costs, depending on their business priorities and the pace at which they want to move.

Payroll processing is vital for an organization and it is regularly incorporated in human resource management system. It is a special-case purchasing system as organization 'purchases' and pay for their employees instead of raw materials or goods [7]. Payroll processing system helps organizations to efficiently, accurately, timely and systematically process employees' salary, allowance, overtime and deductions [8]. In addition, it assists employers to comply with the government regulations such as tax authorities as well as meet the moral and statutory obligation to the employees by contributing in the employee provident fund and social security [9]. In processing payroll, organizations must alert with latest rules or acts by the government authorities such as reallocation of employee's contribution in EPF and taxes legislation that may change periodically. Therefore, it is important for organization to adopt payroll system that is reliable, reduce errors and help organization to easily adjust to the changes [1]. Indirectly, these would then increase the motivation and productivity of the employees [10, 11]. Computerized payroll system is a software packages to record, organize, and maintain employee data, such as names, addresses and pay rates, electronically. During each pay period, it calculates payroll deductions (e.g., EPF, SOCSO), allowances (e.g., meal, transportation) and taxes, produces pay slips and keep all data up-to-date.

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Human resource management (HRM) includes all management decisions and practices that affect the employee of an organization (Bhatt and Reddy, 2011). There have been many definitions of human resource management used by different scholars. Daud (2006) defined HRM as a system, policy, and practices that can affect folks that work in an organization. In addition, Shahnawaz and Juyal (2006) defined Human resources management (HRM) as all decisions and practice that influence worker within organizations. De Cieri, et al. (2008, p.5) explained HRM as "the policies, practices and systems that influence employees' behaviour".

Hussain and Ahmad (2012) considered HRM to be a system that attempts to realize an active balance between the personal interests of people and their economic added value. Lastly, Burma (2014) viewed HRM is a strategic and clear approach for the organization's most valued assets behind on the employees. Human resources management is considered to be the most important factor that helps the organization to achieve a competitive advantage (Obeidat, et al., 2012, 2013, 2014; Masa'deh, et al., 2019). This is due to the fact that managers in both public and private organizations consider human resources to be the main source of sustaining competitive advantage; this is done by having the "best of the best" human resource systems for recruiting, selecting, motivating, and efficiently managing their people (Mesch, 2010). HRM practices are defined as "organizational activities directed at managing the pool of human resources and ensuring that the resources are employed towards the fulfilment of organizational goals" (Pankaj and Saxena, 2012, p. 671). However, it must be taken into consideration that human resource management practices are not fixed; they differ from one country to another (Ozutku and Ozturkler, 2009; Tiwari and Saxena, 2012). A significant body of research focuses on several specific human resource management practices. Such practices include staffing, training and development, performance appraisal compensation management, safety and health, industrial relations, and recruitment and selection (Ferguson's, 2006). Singh (2009) worked on the addition of a number of HRM practices including planning, performance evaluation, career management, and rewards. Karunesh and Pankaj (2009)

examined the HRM practices implemented and identified some other practices, such as employer-employee relations, recognition through rewards, culture building, career development, and benefits. Furthermore, Pahuja and Chander (2012) added a few other practices: inculcating the right skills, knowledge and attitude; having a congenial work environment; and maintaining good employee relationships.

In Hussain and Ahmad (2012) work, others HRM practices, namely staffing, training and development, performance appraisal compensation management, safety and health, and industrial relations. In addition, Obeidat, et al., (2014) included the practices of job design, and teamwork as important HRM practices. Based on the comprehensive literature review, this study focuses on four HRM practices; recruitment and selection, performance appraisals, training and development, and compensation and reward. The rationale behind selecting the practices is that these practices occur relatively frequently in HRM literature for manufacturing and service industries. Recruitment and Selection It is generally agreed by most employers that their staff is the greatest asset for their company, and thus the recruitment and selection processes are vital in ensuring that a new employee can become efficient and produce desirable result in a short time. In other word, the success of an organization depends on having the right number of staffs, with the right skills and abilities (Mark, 2014). Various authors who studied recruitment and selection have agreed that there is a distinct different between the two, this point can be seen in both Taylor (2008) work and Rees and French (2010) studied recruitment is the process whereby an organization collects applications for a position and creates a pool of possibly fit workers, while selection includes using techniques or different methods to evaluate the applicants and choose who is best fit to the available position, and achieve management goals and legal requirements. Mondy and Noe (2013) defined recruitment as the process of pool people on a timely basis, in sufficient numbers and with suitable experiences, to apply for jobs with an organization. Selection mentions to the process of choosing the individual, who is best suited for position and for the organization.

According to Khanna (2014, 148) recruitment is "a process of publicizing the vacancies of any esteemed capacity in the most attractive and rightful manner with the sole objective of attracting maximum pool of eligible candidates for the position"; while selection is "a process of sorting the most relevant job applications of

candidate selection or closure". Recruitment and selection are shown to be crucial processes for organizations (Anyim, 2012). Human research leaders are successful in their work often know how to attract, select and retain top talent efficiently, and they also hold key information, such as on incorrect numbers and locations, at the right times (Longenecker and Fink, 2013). This process includes seeking and selecting applicants whom the recruiter foresees can be a fit for the company and can contribute the maximum performance to the organization. Both recruitment and selection are fundamental HRM activities; if managed well, these activities can have a significant impact on organizational performance, which can lead to a more positive organizational image (Pilbeam and Corbridge, 2006). By contrast, ineffective recruitment has a number of cost effects for employers, such as; low morale which can affect employee performance, lost business opportunities, as well as higher levels of labor turnover (CIPD, 2005), damage production, and customer dissatisfaction.

Summary:

In this 2nd chapter we have described about the reviews of literature in which we have mentioned around 30 – 35 reviews of people in which they have mentioned about the pros of the software, also talked about the problem that one may face while using it and how it can be resolved by making some changes and taking some measures.

CHAPTER 3

RESEARCHED METHODOLOGY AND ANALYSIS

3.1 Existing Methodology

This study used a qualitative research methodology with case studies to analyze access and inclusion in organizational service (Yin,2014). Case studies are use in order to answer the questions that researchers ask related to the ineffectiveness of the payroll process at PT X.

The data source used in this study is primary data. Primary data is a direct source of data (Sugiyono,2015). According to o Sunyoto (2013), primary data is original data collected by researchers to answer their research problem specifically. The data used in this study was collecting by obtained directly from field observation activities, interviews with informants, and related parties who directly manage payroll data, including the HR department head, HR payroll and compensation benefit supervisor, and HR administration staff.

All data obtained will be analyzed using system development methods, namely the FAST (framework for the application of systems technique) method. FAST consist of 8 stages, namely scope definition, problem analysis, requirement analysis, logical design, decision analysis physical design and integration, construction and testing, and installation and deliver (Whitten and Bentley, 2017). The section focused on this research is only the initial 6 phases. In the decision analysis phase, a comparison analysis of on- premise cloud is carried out using the total cost of ownership method.

3.2 Technical Description

For our system HR and Payroll Management System, we have used Visual Basic as our front-end language. This language was released in 1987 and is known as the third-generation event-driven programming language. From the Microsoft, it is the first visual development tool and is considered as one of the most powerful programming languages as compared to other programming languages such as C, C++, this language is also easy to learn and understand. [28][29]

Visual Basic programming language allows to create software interface and codes in an easy-to-use graphical environment. Visual Basic is the combination of different types of components that are used on forms having specific actions and attributes with the help of those components. On the one hand it helps greatly in accessing data bases, using AOD. In comparison of other languages, Visual Basic may be slower though, yet it is flexible and can be said that the things are comparatively easier in Visual Basic programming language than any other languages. One of the important that must be considered with regards to Visual Basic programming is that structure of VB is designed in such a way that allows programmers to create an executable code i.e., Exe files. It enables programmers to develop programs that can be used as front-end to databases. Besides, with the help of VB tools, we can change the ideas into programs or into the whole software while it allows modifying and revising the programs fitting.

3.3 Architectural description

Architectural diagram of HR and Payroll Management System is already shown above in (fig. 1.3). This paragraph consists of its description. On the homepage, message in then textbox is displayed as “Welcome to Human Resource and Payroll Management System” with the specified logo. Buttons are been provided such as “Info”, “Exit”, “Next” to perform particular operations as per need. By clicking on “Info”, “help” page will be shown. By clicking on “Exit”, user/admin will be exited form the system. Now by clicking on “Login”, two modules will be displayed as “Admin” and “User”. If it is “Admin Login”, then a homepage will be displayed where all the screens related to “Admin” will be listed, like Job seeker registration, Company details, Employee registration, Post and designation master, Salary calculator, Training topics, Attendance management. Same is with the user, if it is “User Login”, then a homepage will be displayed where all the screens related to “User” will be listed, such as Job seeker registration, Training topics, Attendance management. [30][31]

3.4 Outline of proposed work

This proposed software will solve some problems related to HR and Payroll System. We have designed this system in vb.net visual studio version 2019 using windows forms applications .NET framework. HR and Payroll may have different functions, they are linked to their organization’s people. Payroll is responsible for making the payment

and calculating the taxes that need to be withheld each month, while HR manage multiple processes related to an employee's pay, such as salary increases, bonuses and incentives, vacation and leave days, and other similar elements. This software is designed in such a way that it will generate the salary automatically every month in time. So, there are not much worries. This software also equipped with the facility of checking the employees to whom no salary has been sanctioned. The software built to generate individual pay slip and summary of the payroll.

3.5 Business process

Many businesses utilize one or more human resource information systems or automated payroll software to stream line business processes within an organization. These programs electronically house employee data and automatically update and calculate items such as salaries, deductions and application statuses. This not only saves time, but also increases an HR department's efficiency. Modern businesses rely on HR software to simplify and automate daily HR processes. Whether you're in the market to look for a new HRMS solution or trying to replace your existing tool, having a well-researched requirements list specific to your organization can come handy. We've compiled this comprehensive HR system requirements checklist so you know which HRMS software features are most important to consider. Identifying business requirements and defining long-term and short-term objectives are vital for choosing a suitable solution. During the process, it's crucial to involve your employees and HR administrators to find the right fit. Here are some of factors to keep in mind while assessing your requirements:

- HR administrators have a myriad of responsibilities that may affect decision-making or employee skill development. The right solution can remove the mundane tasks so HR administrators can focus on more pressing responsibilities.
- With the rising popularity of remote working culture, it's important to have a common platform for smooth communication.
- As industries and organizations grow, you require an efficient means to analyze employee performance and turnover. A key requirement from a solution is its ability to provide actionable insights from data trends to facilitate effective decision-making.

- It’s beneficial to give employees more control over their performance and learning management. Listed below are some software that can be used for small businesses.

1. **Applicant Tracking**

Automated application tracking software is a popular choice among small businesses because it allows job posting, requisition and application to be submitted, organized and stored easily. As opposed to sorting an maintaining paper applications, employers receive candidates applications in an electronic format and even can pre-screen applicants against the primary qualifications for any given position with built-in questionnaires. Some applicant tracking system also have the capability of rating candidates according to their compatibility with the job description and requirements by ranking them in order of the most qualified to the list. [32][33]

2. **Timekeeping**

Timekeeping software reduce the amount of data entry and manual calculation required by allowing employees to enter an submit their time shifts online and automatically calculating net pay based, entered information, such as compensation rates, hours worked and vacations and holidays. Some time keeping system also track vacation accruals and usage, which can be useful staffing tool when it comes to approving time – off requests.

3. **Payroll**

Payroll processing can be done more quickly and accurately with automated system. Typically, data such as federal and state tax rates, voluntary deductions and salaries are entered in the database, which means automatically calculates net and gross salary earnings when each employee’s time sheet is imported in the software. Depending on the program you use, payroll direct deposit and live checks also may be generated automatically once your payroll file is submitted each pay period.

3.6 Transactions of the system

In this module of salary calculation, admin can calculate the salary of employees working in an organization. The salary slip is a document issued monthly by an

employer to its employees. A salary slip contains a detailed breakdown or employee salary and deductions for a given period. This document can be either printed hard copy or mailed to the employees. The employees can download salary slip format in pdf format. What are the Components of Salary Slip?

The employer generates a salary statement every month. The employee can download salary pay slip in pdf format. However, how many understand the salary slip format and components of salary slip to its entity?

The confusing terms and figures are like a puzzle that one dosen't want to solve. For most people, the importance of salary slip is only when they apply for a loan or a new credit card. However, here's why its essential to understand salary slip format better. Choose smartly from competing offers when one is looking to switch jobs. Optimize tax liability by making full use of the deductions available. Understand what percentage of the salary is forced savings (Employee Provident Fund EPF, ESI, etc.)

A salary slip or pay slip will have basic information like company name, employee name, designation and employee code, etc. Salary's components primarily fall under two categories: Income/Earnings and Deductions.[34][35][36]

Income:

The income part of the salary slip has a basic salary and allowances. The same is explained below.

Basic:

Basic, as the name suggests, is the basic component of the salary. It constitutes 35-50% of the salary. It forms the basis of other components of the salary. At junior levels, the basic tends to be high. As the employee grows in the organization, other allowances tend to be higher. Organizations tend to keep basic low so that the allowance pay won't be topped. The salary is 100% taxable in the hands of the employee. Basic is the first component on the earnings side of the salary slip.

Basic in Salary Slip

Basic Amount

Dearness Allowance

Dearness Allowance paid to offset the impact of inflation on one's pay. It is usually 30-40% of the basic pay. Dearness allowances da is directly based on the cost of living. Hence it is different for different locations. For income tax, basic and DA are

considered as pay. Therefore, it is taxable. It appears in the earnings side of the pay slip right after the basic pay.

House Rent Allowance:

House Rent Allowance (HRA) is given to employees living in rented facilities. The HRA depends on the city of residence of the employee. For a metro city, HRA is 50% of the basic pay. For all other cities, it is 40% of the basic pay. Since housing rent allowance is an allowance, it is exempted from tax up to a specific limit, provided the employee pays the rent. It appears in the earnings side of the salary slip. One can save income tax on HRA. The exemption is the minimum of the following:

Rent paid annually minus ten percent of the pay (basic + DA) Actual HRA received 50% of (basic + dearness allowance da) in case the location is (Mumbai, Kolkata, Chennai, Delhi) or 40% of (basic + dearness allowance da) in case of other cities.

Conveyance Allowance:

Conveyance Allowance is the amount an employer pays an employee to travel to and from work. It is an allowance. Hence is exempt from tax up to a specific limit. It appears in the earnings side of the salary slip. One can save income tax on conveyance allowance. The exemption is the minimum of the following:

INR 1600 per month
Actual conveyance allowance received
Medical Allowance

Medical Allowance is the amount an employer pays to an employee for medical expenses during the term of the employment. One can save income tax on medical allowance. However, the employee only receives this amount on the submission of medical bills as proof. If the employee fails to submit evidence of medical bills, he/she will receive the allowance, but it will be fully taxed. In case the proof is provided, the allowance up to INR 15,000 is only exempt from tax. It appears in the earnings side of the salary slip. [37][38][39]

Leave Travel Allowance:

It’s given by employers to cover the cost of employee travel while on leave. It includes the travel expenses of the employee’s immediate family members as well. Proof of the journey is required to avail deduction subject to certain limits. Any expenses incurred during the trip apart from travel do not count towards the leave travel allowance tax exemption. The exemption is also applicable only for two journeys undertaken in a block of 4 calendar years. It appears in the earnings side of the salary slip.[41][42][43][44]

Special Allowance in Salary:

Special allowances include performance-based allowances. These are usually given to encourage employees to work better. Also, these allowances vary from company to company. performance-based allowances. These are usually given to encourage employees to work better. Also, these allowances vary from company to company. Special allowances are 100% taxable. It appears in the earnings side of the salary slip.

Allowances in Salary Slip

Allowances

Deductions

The deduction part of the salary slip has the professional tax, TDS and EPF. The same is explained below.

Professional Tax:

Professional tax is a small tax levied by state governments on earing professionals. It is payable only in a few states. Namely, Karnataka, West Bengal, Andhra Pradesh, Telangana, Maharashtra, Tamilnadu, Gujarat, Assam, Chhattisgarh, Kerala, Meghalaya, Orissa, Tripura, Jharkhand, Bihar, and Madhya Pradesh. It is not only levied on professionals but to anyone who earns a living through a medium. This amount is deducted from the taxable income. Also, it usually amounts to just a few hundred rupees each month and is subject to the gross tax slab. It appears on the deductions side of the salary slip.[45][46]

Tax Deducted at Source:

It is the amount deducted by the employer on behalf of the income tax department. It is based on the gross tax slab of the employee. One can reduce this amount by investing in tax-exempt investments like equity funds (ELSS), PPF, NPS, and tax-saving FDs. It appears on the deductions side of the salary slip. Hence, investing in section 80C instruments of the Income Tax Act increases your takehome salary. One can invest in mutual funds (ELSS), submit investment proof to the company and claim tds returns.

Employee Provident Fund (EPF):

It is the contribution of the employee to the provident fund. This qualifies for section 80C of the Income Tax Act. Provident fund is the accumulation of funds for employee's retirement period. The Employees' Provident Fund Organisation governs it. 12% of the employee's basic salary goes towards EPF. The employer also makes a similar contribution on behalf of the employees for their retirement.

However, not all the contributions made for Employee Provident Fund goes to the provident fund. Out of employee's contribution, 8.33% goes to the Employees' Pension Scheme. If their salary is above INR 15,000, the contribution is INR 1,250. For employees with a salary below INR 15,000, 8.33% goes towards the Employees' Pension Scheme. The balance amount is retained in the EPF scheme. However, employees can opt-out of the EPF scheme (up to a limit) and invest in better-earning instruments like equity funds (ELSS). Employee Provident Fund appears on the deductions side of the salary slip.

3.7 Proposed architecture/design

3.7.1 Logic and Connectivity

Finally, we have made the good payroll software that aligns with user's payroll needs. This is a crucial step, and it will benefit user in the long run. Also, choosing a software solution for payroll can help you maintain an organized record of all the data. We have gathered all the necessary information related to the project, some of the information includes:

1) Basic employee details like name, position.
2) Social security numbers.

3) Current contributions and deductions.
4) Tax filling status.

Using these details, we set up the payroll for:

1) Create an employee ID number (EIN)
2) Accquire a state tax ID number for all the locations your employees lives.
3) Schedule the payroll process (monthly, weekly).
4) Use a time track to calculate employee working hours.
5) Open a business ban account for payroll reconciliation.
6) Collect bank details of your employees.

In the same way we have prepared the screens and connected through Microsoft access database. We have done our logic and connectivity part in VB.Net with database. All the information when user/admin enters and saves gets saved in the database, which can keep all the records related to employees and any data inputted. [47][48][49]

As I have already told that we can connect to an Access database by using Visual Studio. After you define the connection, the data appears in the Data Sources window. Form there, you can drag tables or views onto your design surface. Then we followed these steps and created a dataset for an .accdb file:

Connect to databases created with Microsoft Access by using following procedures:

1) Open a Windows Forms or WPF application project in Visual Studio.
2) To open the Data Sources window, press Ctrl+Q, enter “data” in the search box, and choose Data Sources window. Or on the View menu, select Other Windows > Data Sources. Or on the keyboard, press Shift+Alt+D.
3) In the Data Sources window, click Add New Data Source.
   The Data Source Configuration Wizard opens.
4) Select Database on the Choose a Data Source Type page, and then select Next.
5) Select Dataset on the Choose a Database Model page, and then select Next.
6) On the Choose your Data Connection page, select New Connection to configure a new data connection.
   The Add Connection dialog box opens.
7) If Data source is not set to Microsoft Access Database File, select the Change button.

The Change Data Source dialog box opens. In the list of data sources, choose Microsoft Access Database File. The option .NET Framework Data Provider for OLE DB is already preselected. Choose OK.

8) Choose Browse next to Database file name, and then navigate to your .accdb file and choose Open.
9) Enter a user name and password, and then choose OK.
10) Select Next on the Choose your Data Connection page.

    You may get a dialog box telling you the data file is not in your current project. Select Yes or No.
11) Select Next on the Save connection string to the Application Configuration file page.
12) Expand the Tables node on the Choose your Database Objects page.
13) Select the tables or views you want to include in your dataset, and then select Finish.

    The dataset is added to your project, and the tables and views appear in the Data Sources window.

3.7.2 Screens to be dedicated and to what?

In the first screen i.e., Logo we have added our project logo, where message is displayed as “Welcome to HR and Payroll Management System”, by clicking “Next”, another screen will be displayed i.e., User login page, where user logs in using username and password. If both the parameters are correct then message is displayed as “Login Successful”. If the user type if admin, then Admin login page is displayed, which also takes two parameters like username and password. If both the parameters are correct then message is displayed as “Login Successful”. Click Ok. The login module makes sure that only an authorized staff is allowed to use the system. when a user logs in,a user interface is opened and he can perform any of the above functions at a mouse click within an interface. However, there are restrictions for other user. By clicking “Next”, Homepage displayed which consists screens like “Company Details”, “Employee Information”, “Job Seeker Registration”, “Attendance”, “Training Topics”, “Appointment Letter”, “Designation Master”, “Salary Calculator”.

If “Company Details” is selected then the parameters required are company no., name, address1, address2, pin code and by inputting these parameters correctly message

is displayed as “Data has been updated successfully”. The advantage of this screen is that if any user or admin wants to know about the company, he or she and go through the details and get updated themselves. [49][50]

If “Employee Information” is selected then the parameters required are Employee ID, name, address1, address2, mobile no., joining date, marital status, designation, department, city and by inputting these parameters correctly message is displayed as “Data has been updated successfully”. The registration module helps to have a database of all the employee by keying in information such as name, address, contacts, blood group, basic salary and so forth. Every new employee’s data is keyed in and safely stored in a database. if an employee is sacked or resigned, his /her data can be delated. This deletion can be done by fetching the record of an employee and deleting. The validation used is to make sure that no field is empty. The system also allows to have a view of all employee record as a report can be printed.

If “Job Seeker Registration” is selected then the parameters required are First name, middle name, last name, phone no., address1, address2, DOB, applying for, gender, city, status, alternate no., country, do you have disability, nature of disability. If these information is filled correctly and with accuracy then message will be displayed as “Data has been updated successfully”. It helps users to seek job and get to know about the vacancy in the company’s department for the job he/she is searching for. All the data inputted by the user gets updated in the database and keeps a record and track of each and every employee who is applying for it. Registration record keeping becomes accurate and data can be handled with accuracy and with great care.

If “Designation Master” is selected then the parameters required are Employee ID, name, address1, address2, mobile no., joining date, marital status, department, designation, city. By inputting this data correctly, data will we recorded in the database with efficiency and it also becomes easier for the one who is keeping track of all the data and record. Also this screen provides “Search” button, which helps the handler to search the data of the particular employee by just passing parameter as Employee Id. By doing so, data of that particular employee who’s ID was been inputted gets displayed on the screen, which also save time and record-keeping becomes easier, less chances to loss data.

If “Training Topics” is selected then the parameters required are Employee name, id, designation, training topics. Inputting all the parameters data gets recorded in the database. It becomes easier for him/her to input data and also select the training topics for which they have applied. Various topics are available for which an employee could think of taking training. This trainings will increase their skills as well as development which is required for company’s success. It also enhances company’s growth as well as one’s personal growth.

If “Salary Calculator” is selected then the parameters required are Employee name, designation, basic salary, benefits, housing allowance, medical benefits, conveyance allowance, transport allowance. As I already mentioned above that if all the parameters are correct then data is recorded in the database and message is displayed as “Data has been updated successfully”. By clicking on compute, it calculates and returns the total salary of employee. It also reduces errors if data has properly updated in it, it calculates the salary by provided inputs. The purpose of this module is to control the processing of salaries. It is used for monthly processing of all deductions, overtime payments. This module has a drop down list of all employee ID. when an employee ID is selected, a record is displayed and the overtime rate is then keyed in. the overtime rate differs and varies based on the rank of the employee in the organization. A record and report can also be generated thereafter.

If “Attendance Management” is selected then the parameters required are Employee name, id, date, working hours, input correctly and by doing so message will be displayed as “Data has been updated successfully”. The purpose of the attendance module is to monitor the time-in and time -out of every employee and either add or subtract from the time span from their basic working time. every employee is expected to work for nine hours every day (8am to 5pm), so if you come late to work, leave earlier than expected, or stay beyond expected, the system provide justice. The overtime and absent hours in then effected in the salary. An attendance record can also be generated.

If “Appointment Letter” is selected then the parameters required are ID, first name, last name, joining date, applied for the post, gender, ag, interviewer name, DOB, mobile no., basic salary. Input the parameters correctly and the message will be displayed as “Data updated successful”. This helps to for the one who applies for the

job and also it becomes for the handler to keep the records of the employees applying for different posts.

3.7.3 Major Parameters

The primary objective/ parameters of resource management is to ensure a seamless experience for the staff and other people associated with management and organizational goals. Objectives of HRM include ensuring availability of resources, easy access to data, on-time payroll, ensuring compliances, etc. HRM parameters are basically influenced by organizational goals and vertical. The objective of HRM is to ensure a stable work environment with data in one place and efficient operations. Below are 8 primary objectives / parameters of human resource with in-depth elaboration respectively:

- **Achieve organizational goals:**

HRM function starts here. One major HRM parameters / objectives is to fulfil organizational goals. Utilizing human resources to achieve business requirements and goals is very important for an effective HRM. Organizational objectives include workforce handling, staff requirements like hiring and onboarding, payroll management, and retirement. To succeed at the organizational objectives, HR requires efficient planning and execution. Without a set parameter for goals and mission and resources, HRM is incomplete. After you know your resources and planning at the place, achieving HRM objectives is not so difficult.

- **Work culture:**

When it comes to handling HRM effectively and following objectives, employee and work environment are the prior factors. Work culture plays an important role in defining HRM and business performance. An HR manager needs to be active while calling for strategies to foster better work culture. Automated activities like leave approvals, reimbursement request acknowledgement, etc. can help you. Quick operations and empowerment to employees help in creating positive vibes at the workplace. Developing and maintaining healthy and transparent relations among team members and teams contribute to building a good example of work culture. Adopting the right solutions like employee management software can solve more than half of

your job. Small steps like short and sound onboarding processes can help build a good image of the workplace.

- **Team integration:**

One of the prime roles and objectives of HRM is to make sure the team coordinates efficiently. Easy communication is the need for teams at an enterprise. An HR here must ensure a tool to assist in making the integration easier and smooth. The proper connection between individuals is a must to ensure productivity. To make HR management successful, you need to search for better integration portals to make data availability easier for people. Functional objectives like team integration are to produce streamlined operations and tasks. A right tool like the self-service portal can bring employees closer to HR folks.

- **Training and Development:**

Workforce being effective and performing are two important and basic elements to work upon for achieving your basic objectives at an organization. With proper training and providing future opportunities, employees feel safe and organized. Effective employment is highly dependent upon the training practices. Providing opportunities to employees is one great step to ensure workforce management. There might be difficulties such as planning, scheduling, training sessions, and evaluation of each on-boards. To lessen the pain, solutions like training management software can help you with auto-reminders, easy scheduler, reporting, and tracking capability. The HR manager can ensure effective training practice at the firm.

- **Employee motivation**

The prime objective of HR folk is to keep things on the right path. Keep distractions and negative vibes away. For this, the employees need to be attended to and kept motivated throughout. How can HR motivate employees?

Give powers to them. Take their views on things. Involve them in weekly meets or decisions. Even if it is a fresher, let them join. Keep the morale always high. Employee recognition like yearly appraisal based on their performance can too help. An automated feedback system for performance appraisal management can keep your employees motivated and ensure productivity throughout the service. When the employees are

satisfied and fulfilled, nothing else can prevent you from losing your objectives and goals.

- **Workforce empowerment:**

Talking about employee motivation, nothing can work better than empowering them. Empowering them with tools like ESS (employee self-service) portal can help save HR efforts too. With the portal, employees can themselves apply for approvals and track them through their mobile phones. Be it leave request, generating payslip, checking PF account, remaining leaves, upcoming holidays, manager details, or anything, HR intervention is least required. Now, you no more need to knock on HR's desk for small queries.

- **Retention:**

Providing leadership qualities and opportunities, a healthy working area, and employee retention are some prime objectives and deliverables of the HR managers. Keeping employees retained and motivated needs to be a top priority for HRM. Other than employee hiring, onboarding, and training cycle, keeping the employees retained for long is the biggest challenge AKA objective of the HR people. It often occurs that employees leave the organization within 2 months of onboarding. It can be due to ineffective training management or a rough hiring process. Employee experience needs to be carefully attended. Keeping your employees retained can help maintain a good state of employee turnover. To keep it stable, the HR manager needs to learn the best retention tips for business.

- **Data and compliance:**

Functional and organizational objectives also include managing company/ employee data and managing compliances. Managing payroll compliances and keeping the company out of any penalties or fines is a huge challenge for HR people and managers. Even a small error or miscalculation can owe you huge penalties and even may lose respect. When committing to tasks like employment and payroll, you need to be careful about laws and regulations. The objective here is to keep any unwanted claims at bay for smooth functioning.

Automated software like the HRMS system can help you keep errors at the side and leave no window for owing any penalty from IRS. It is the responsibility of HR to follow IRS guidelines and standards for effective employment at the company. Stay assured of all the legalities.

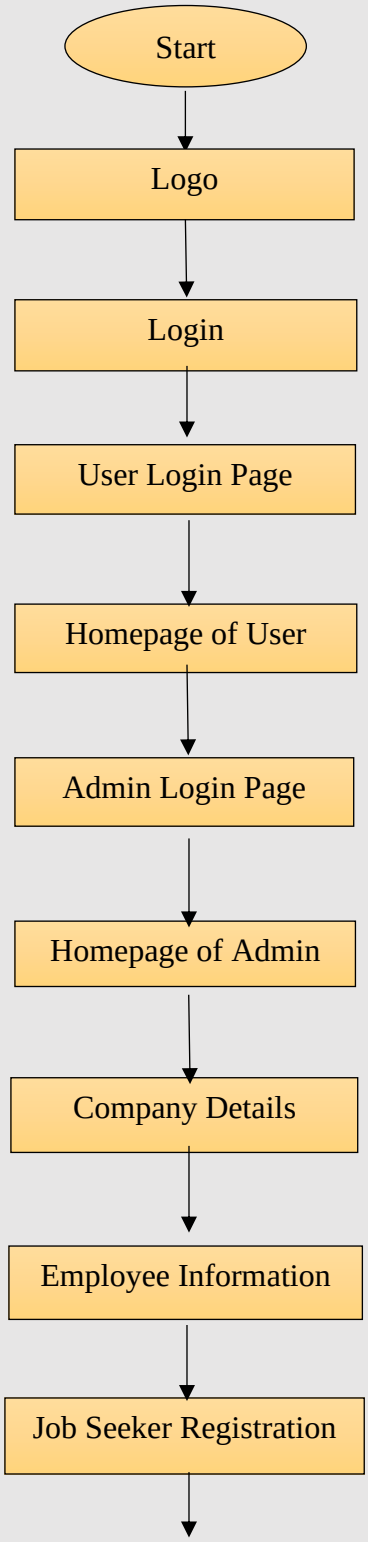
Summary:

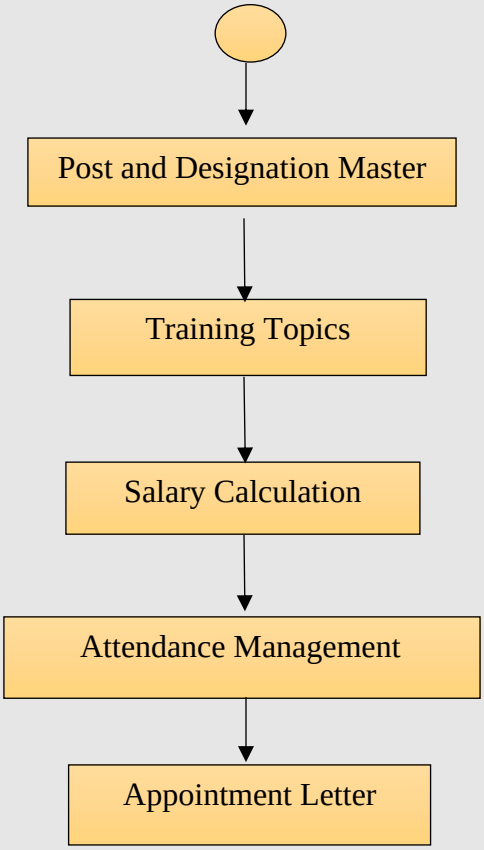
In this 3rd chapter, we described about the technical and architectural description, outline of the proposed work, business process related software, transactions of the system, proposed architecture / design which consist all about the logic, connectivity, databases, screens to be dedicated and to what, major parameters, etc.

CHAPTER 4

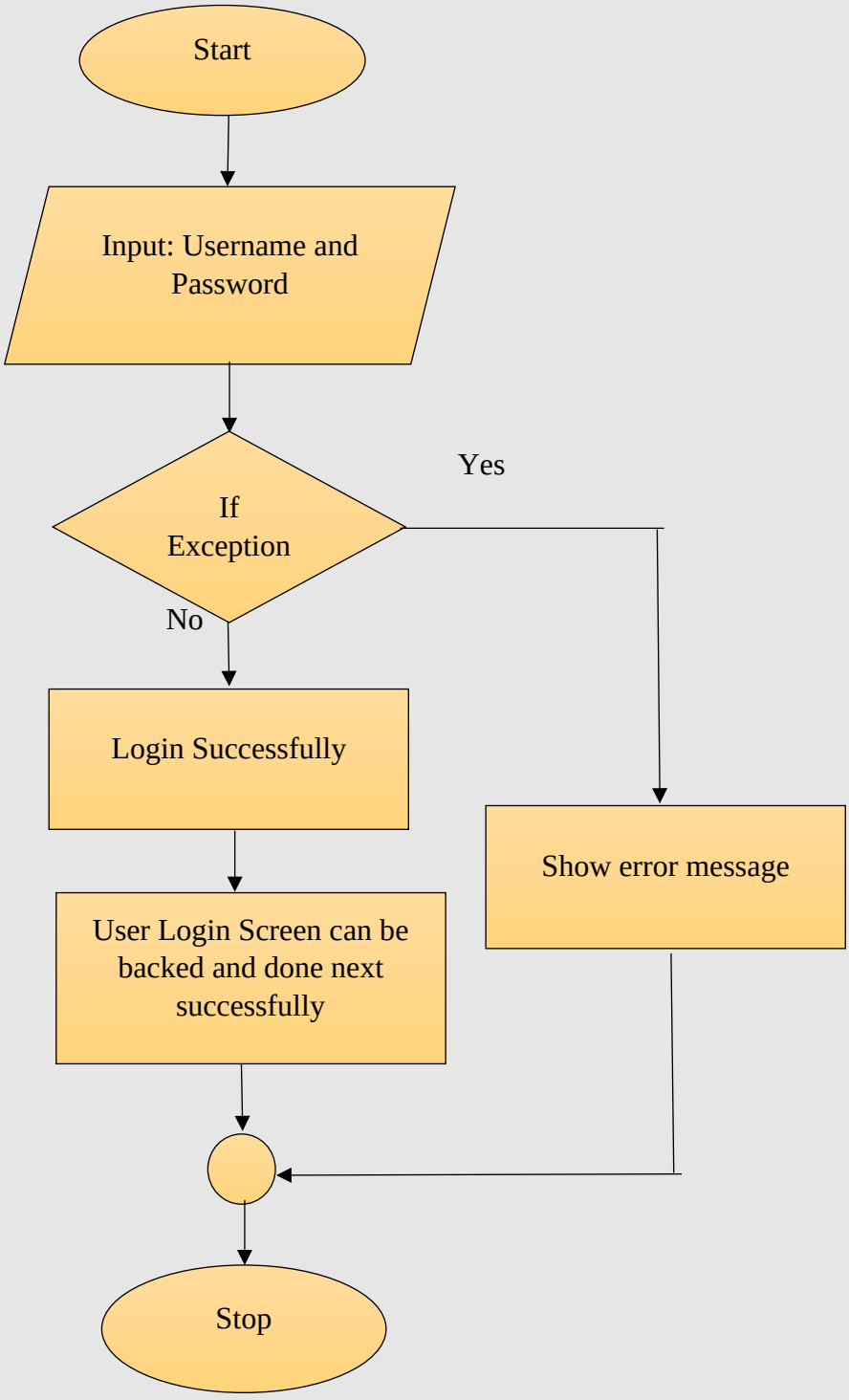
FLOWCHART

4.1 Home Screen

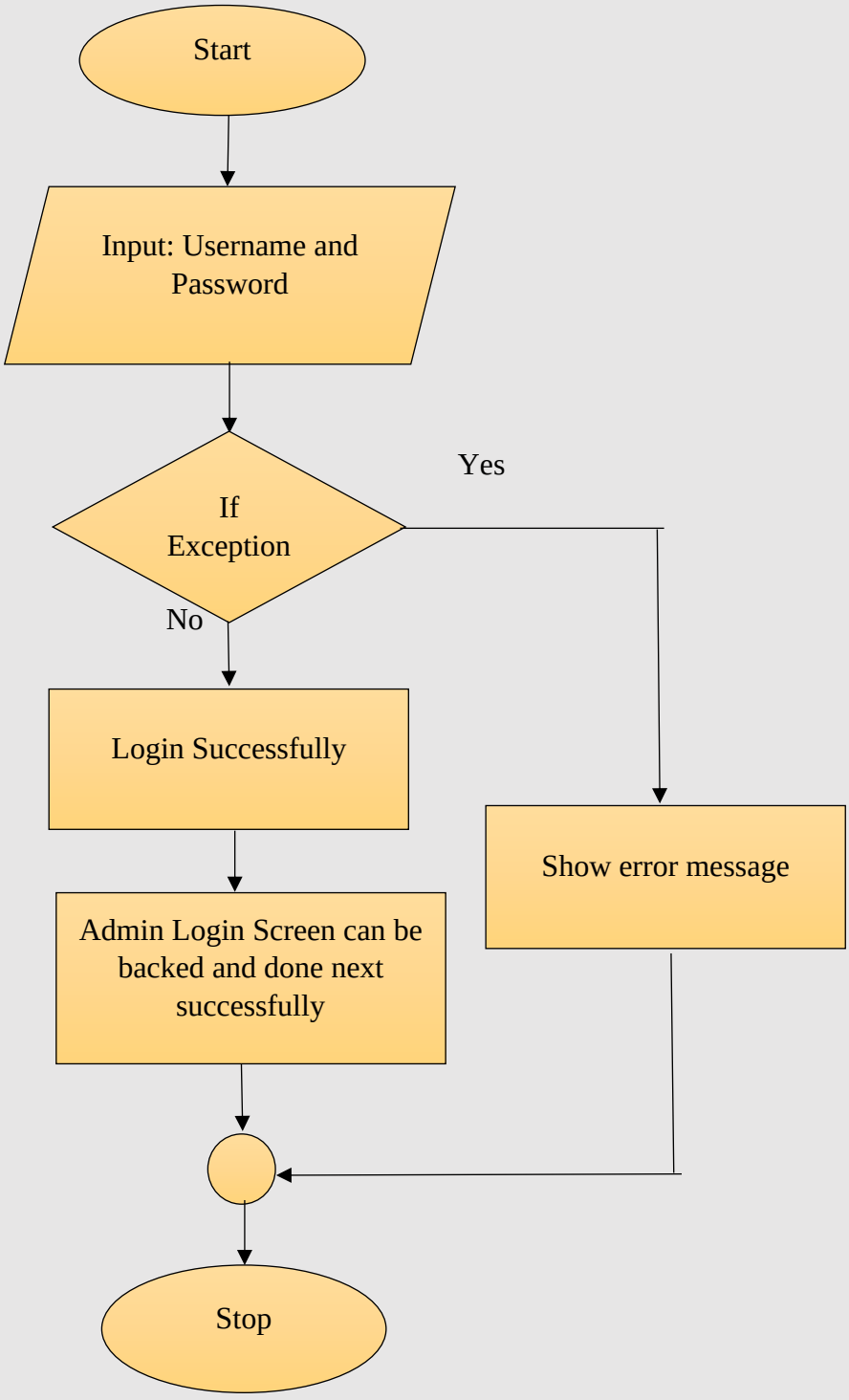



Post and Designation Master
Training Topics
Salary Calculation
Attendance Management
Appointment Letter

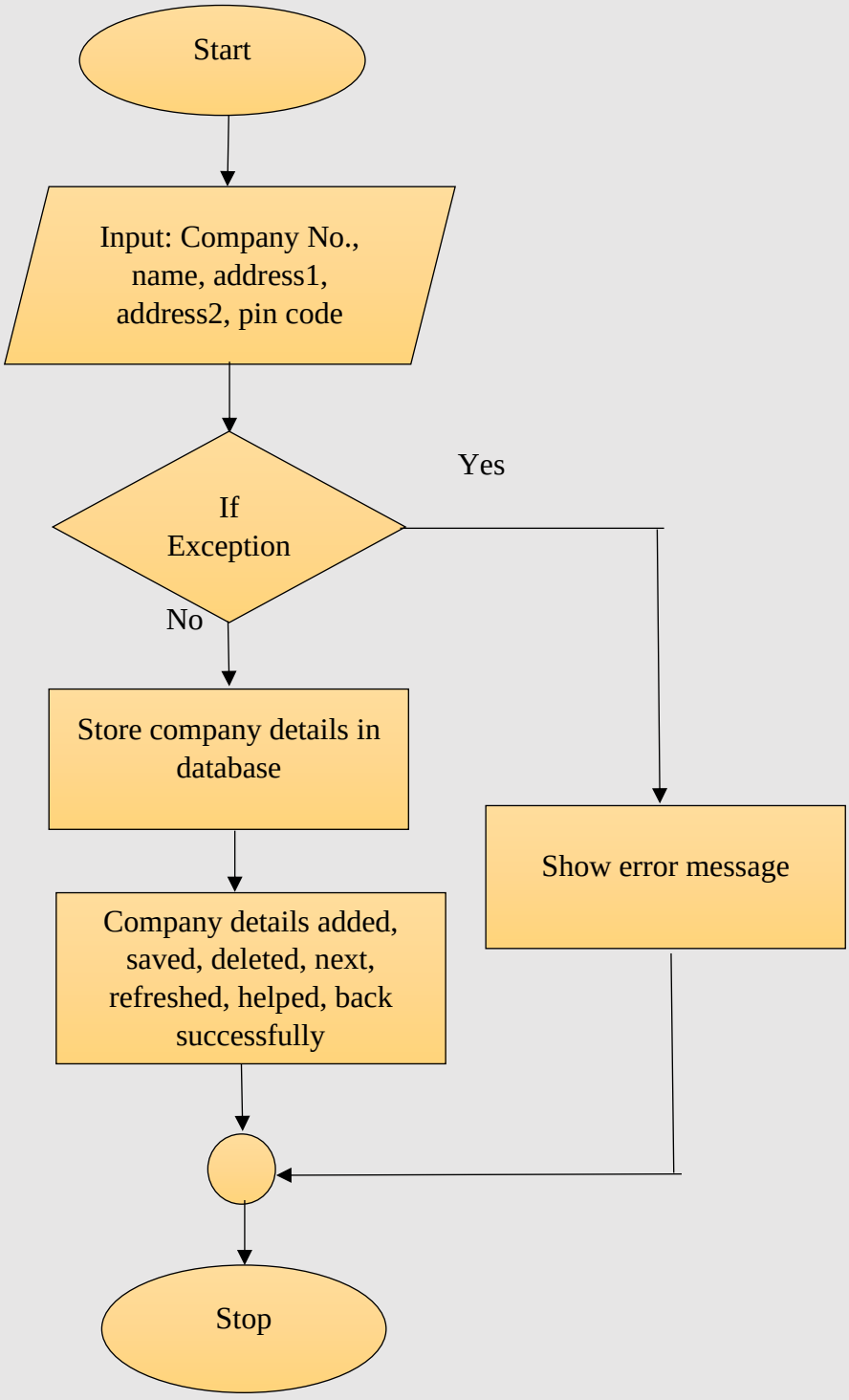
4.2 User Login Page



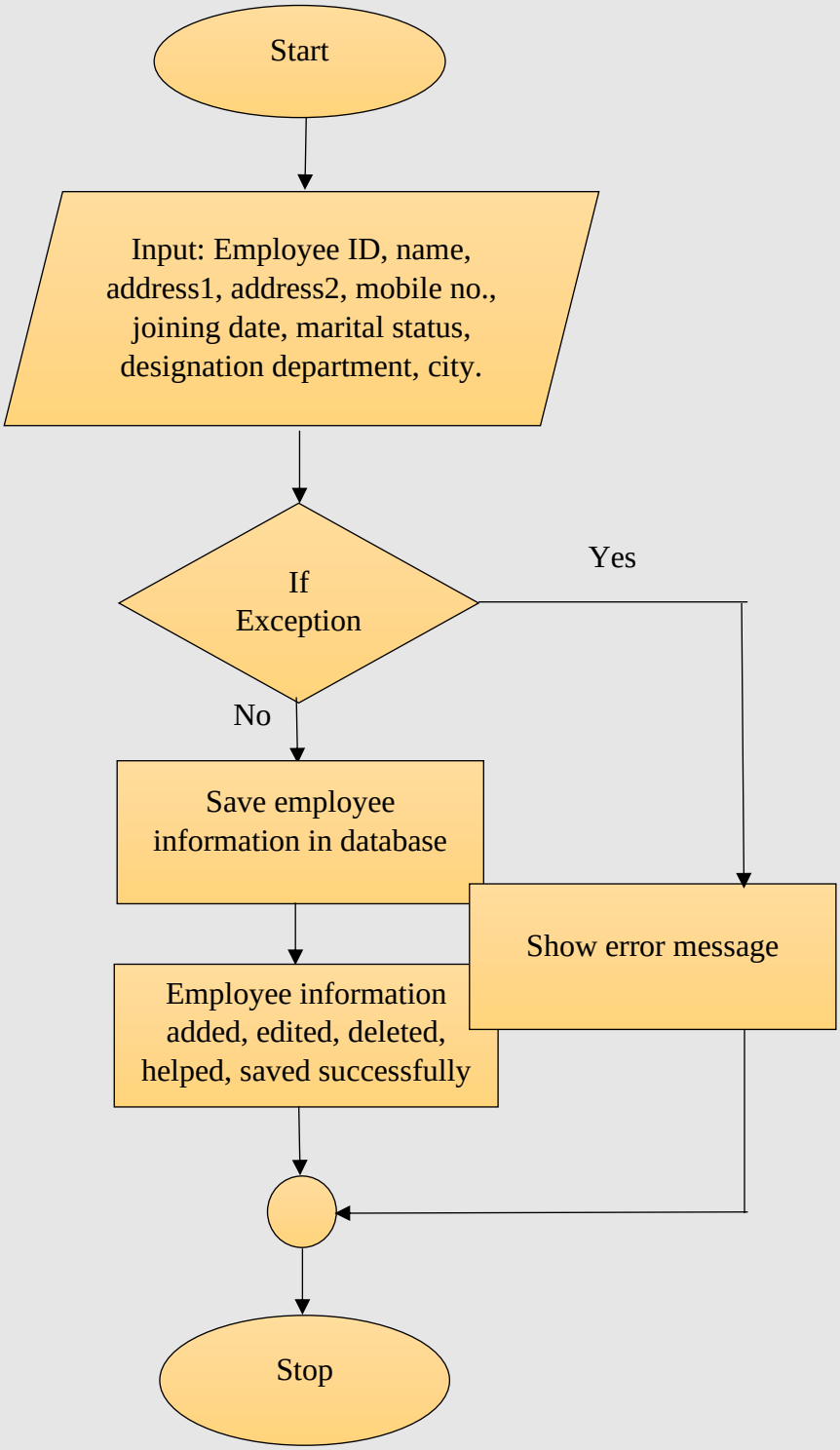
4.3 Admin Login Page



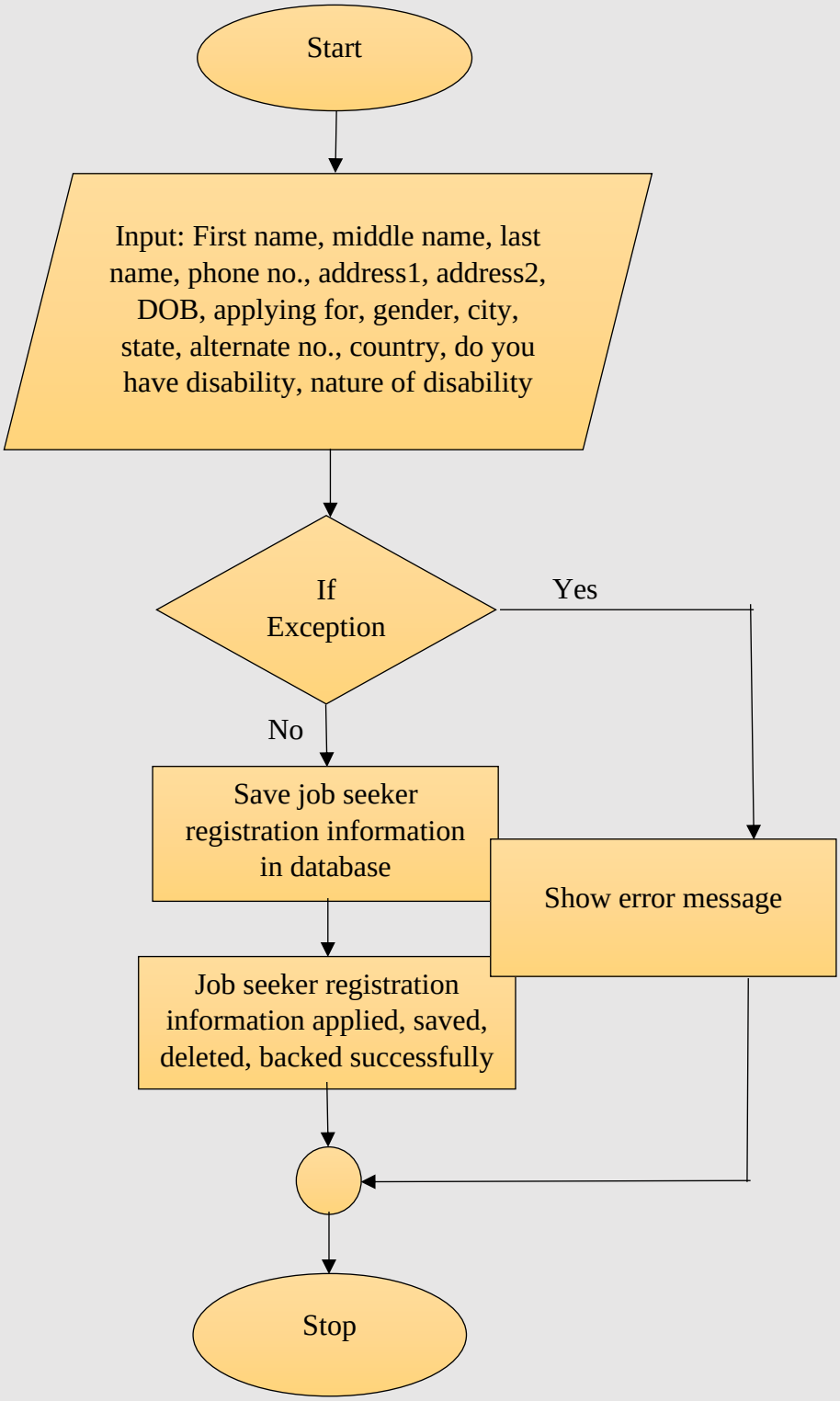
4.4 Company Details



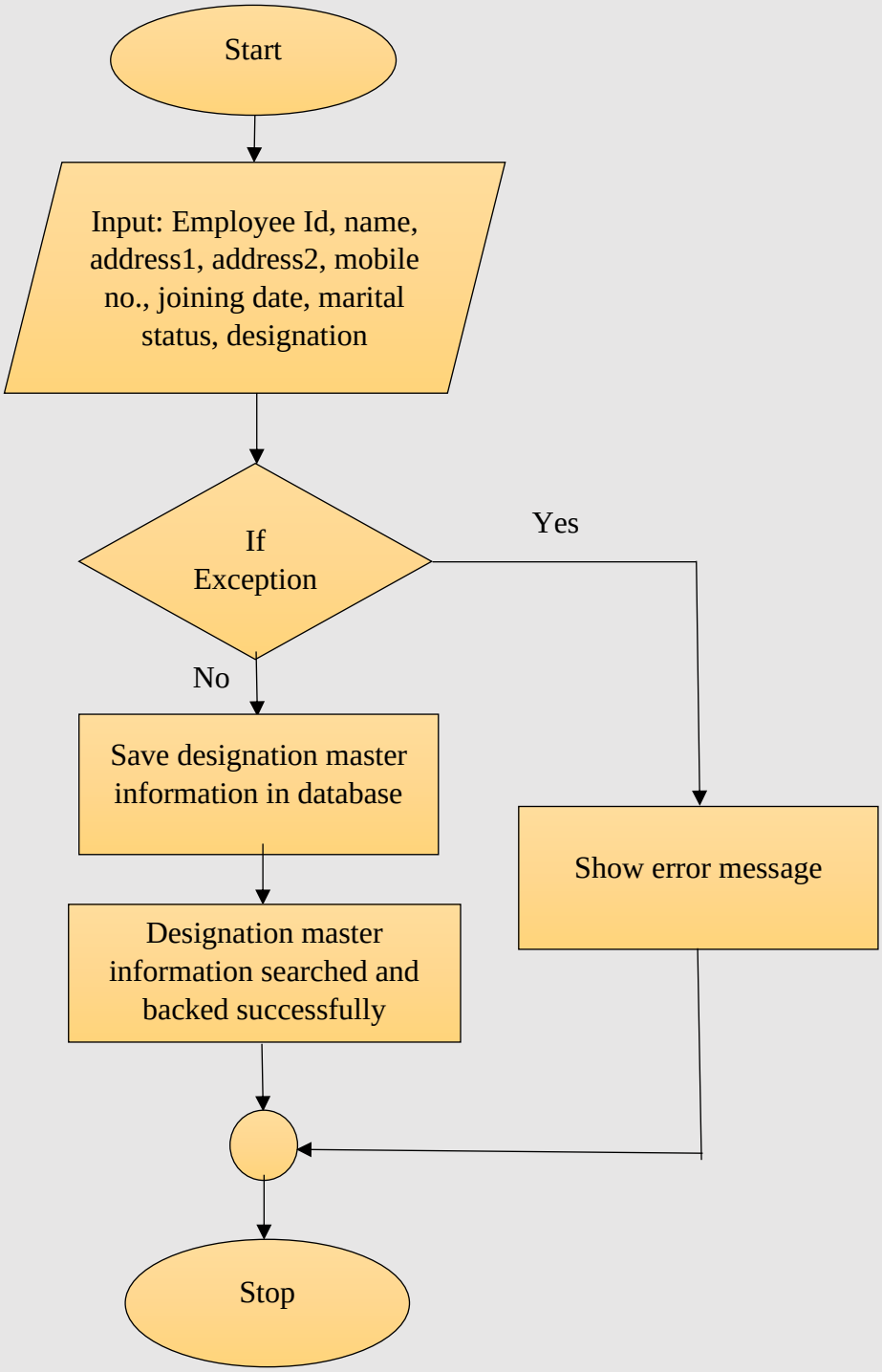
4.5 Employee Information



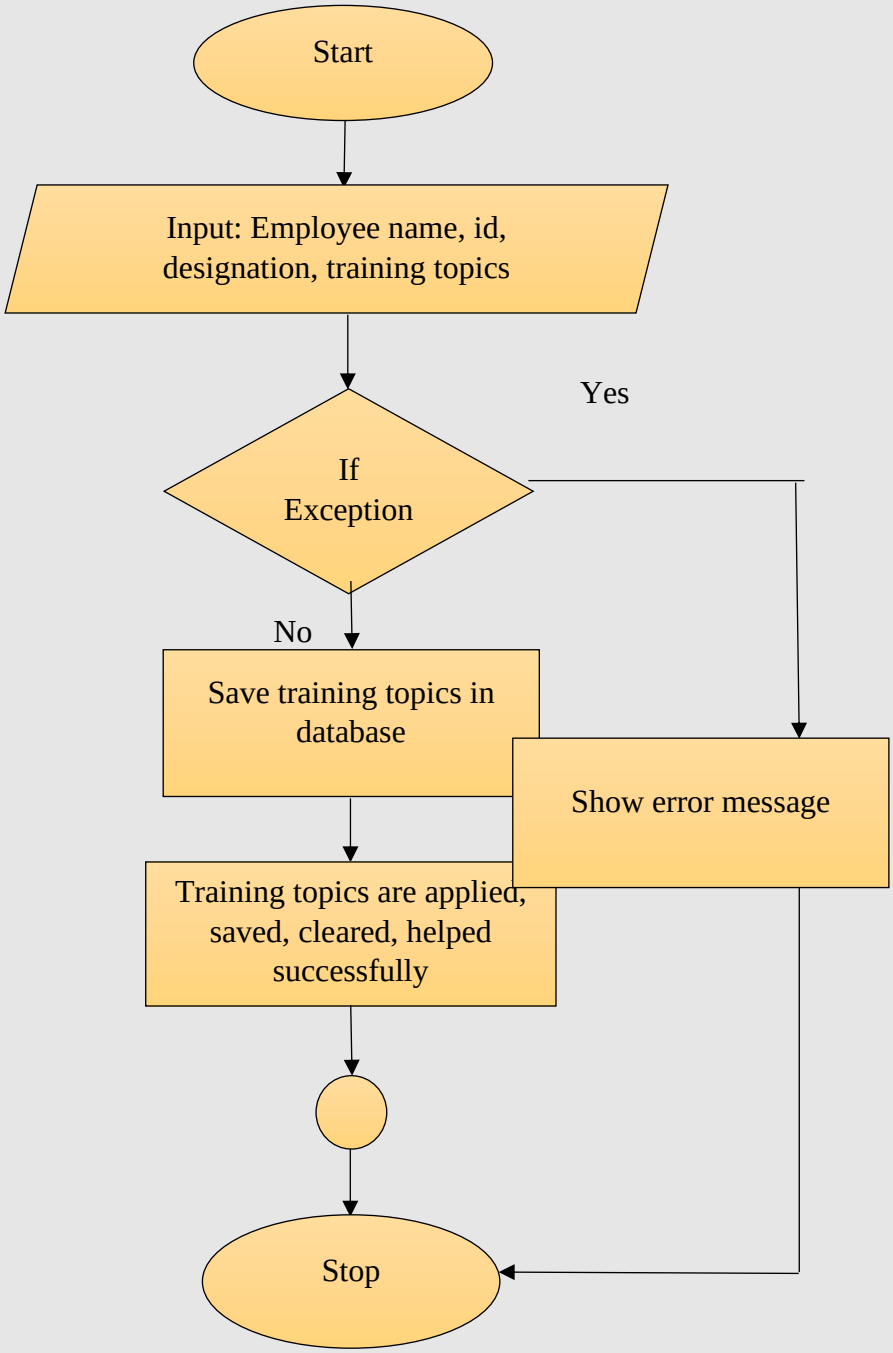
4.6 Job Seeker Registration



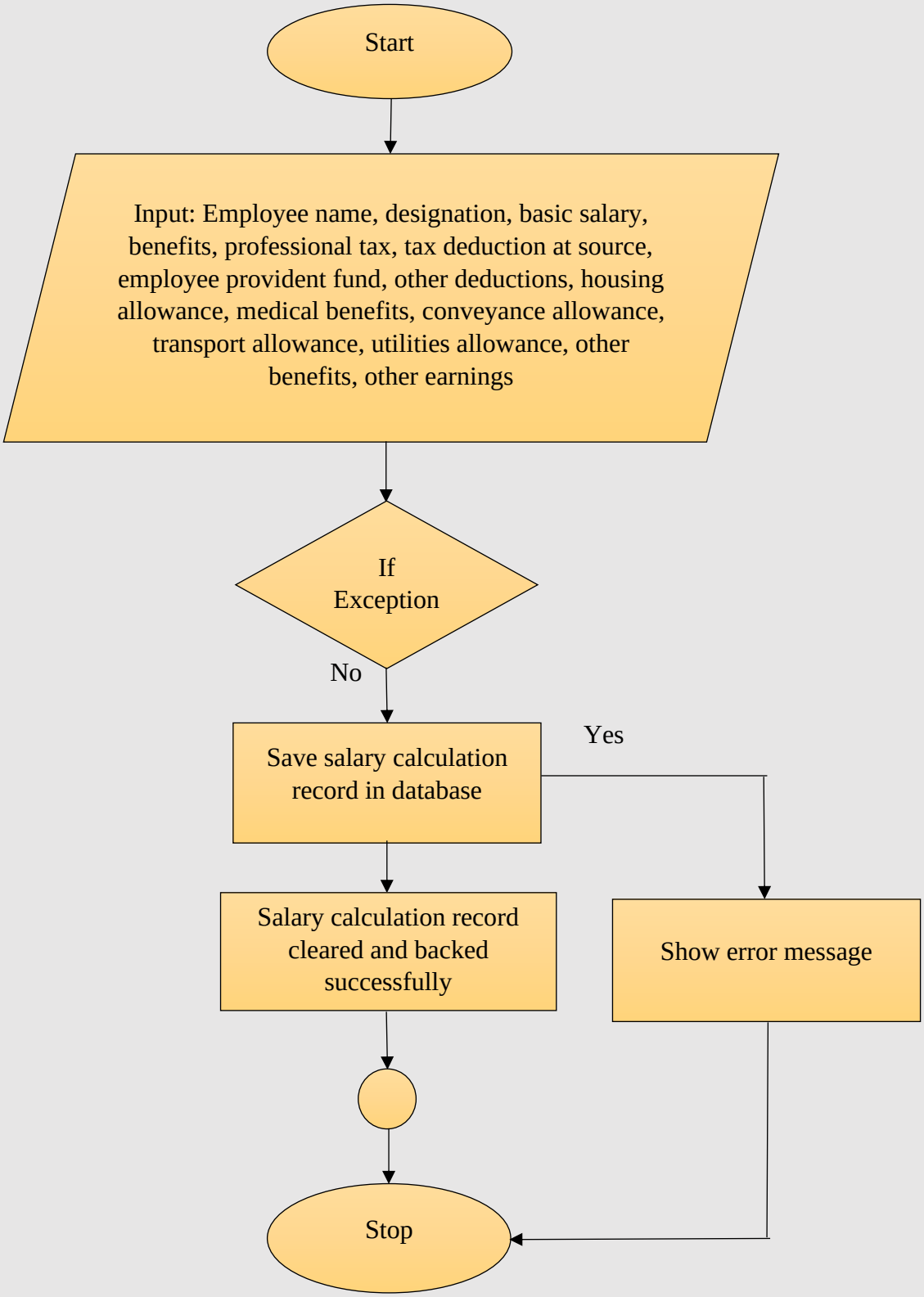
4.7 Post and Designation Master



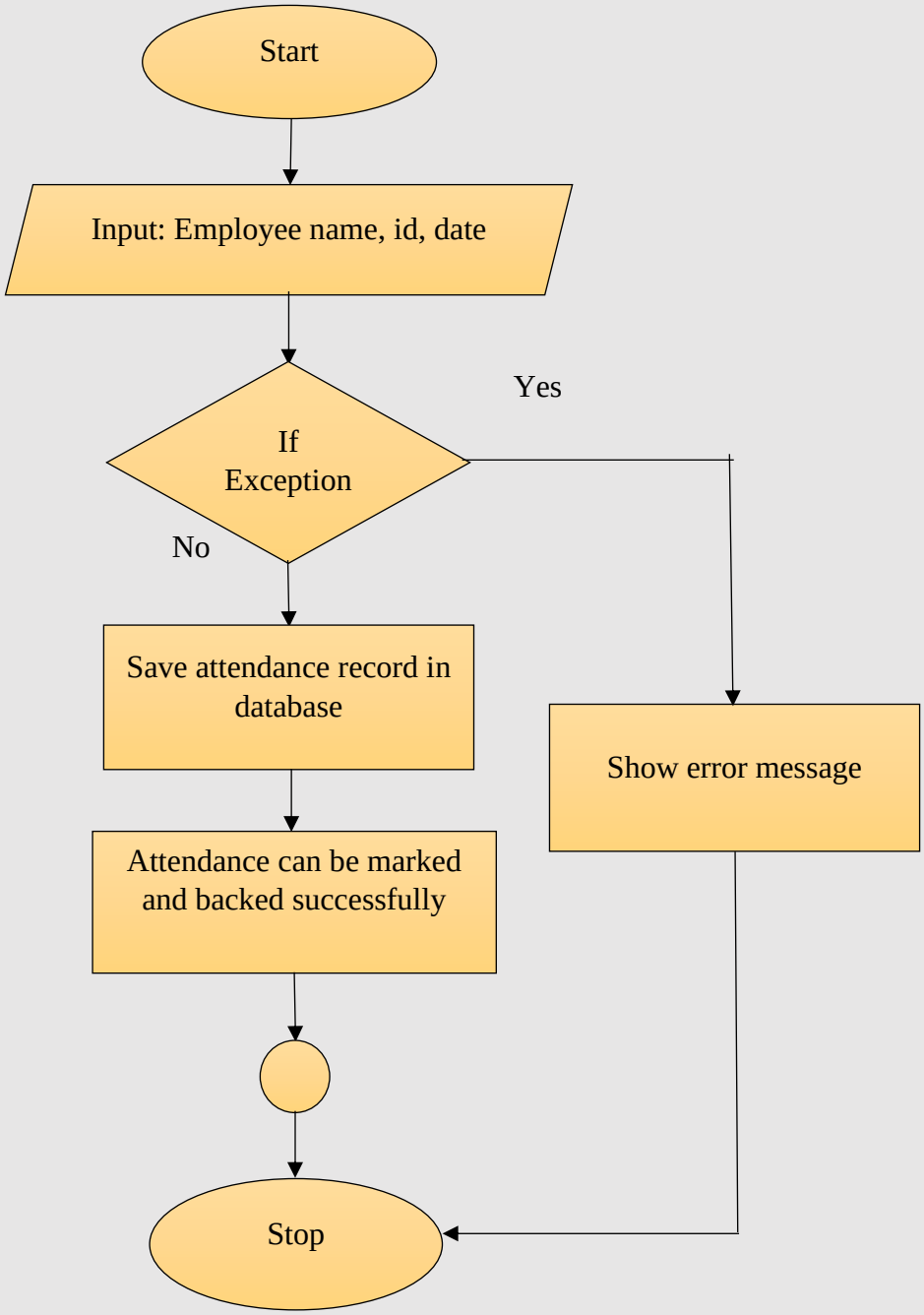
4.8 Training Topics



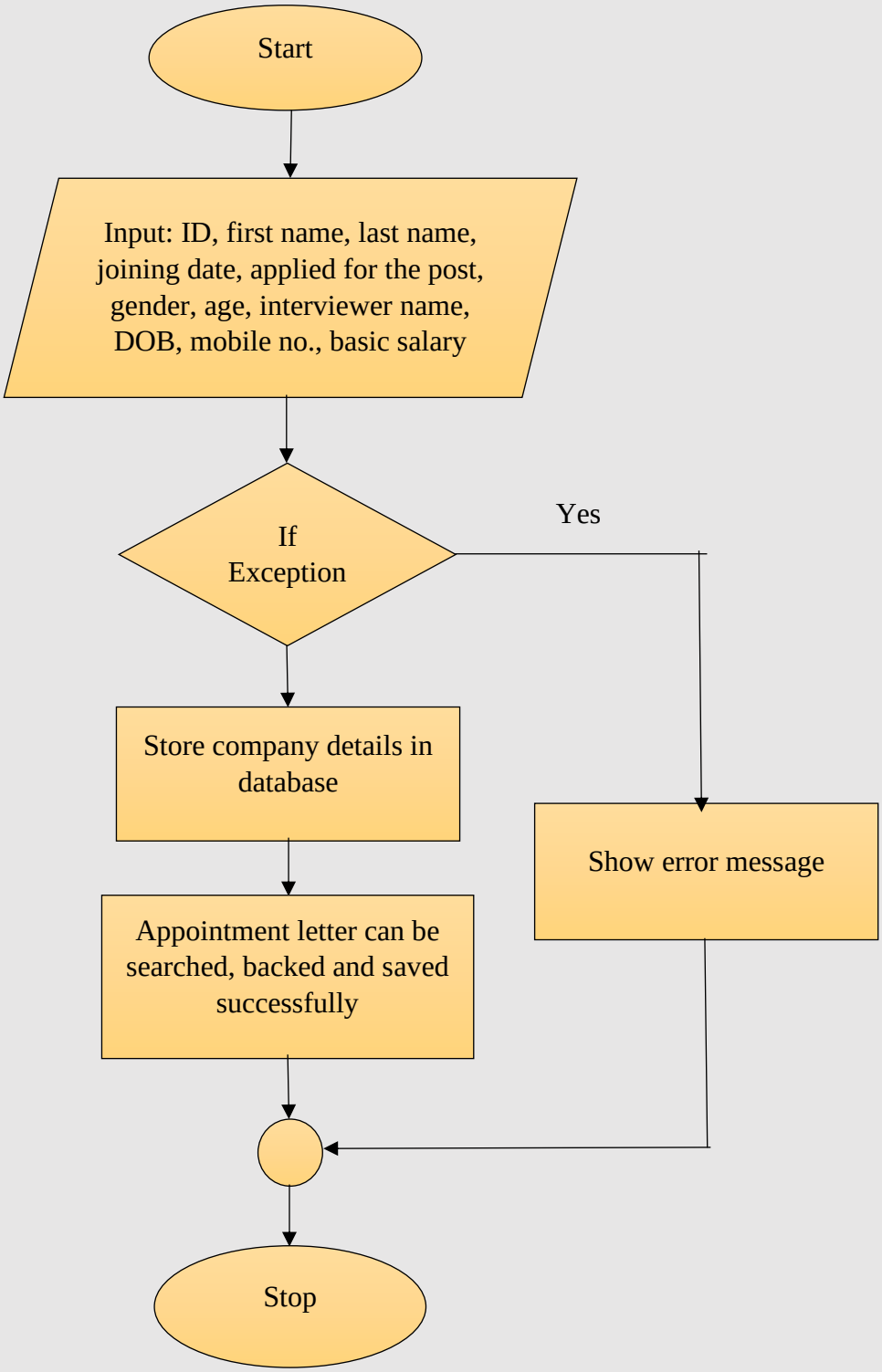
4.9 Salary Calculation



4.10 Attendance Management



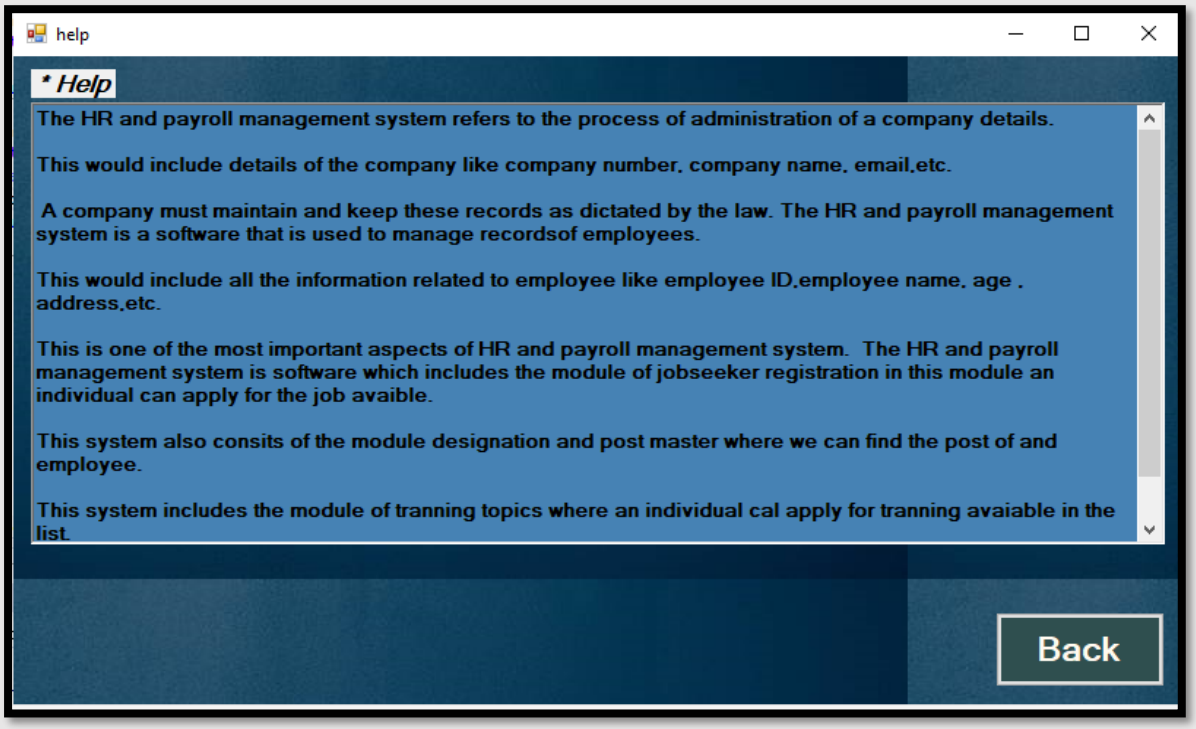
4.11 Appointment Letter



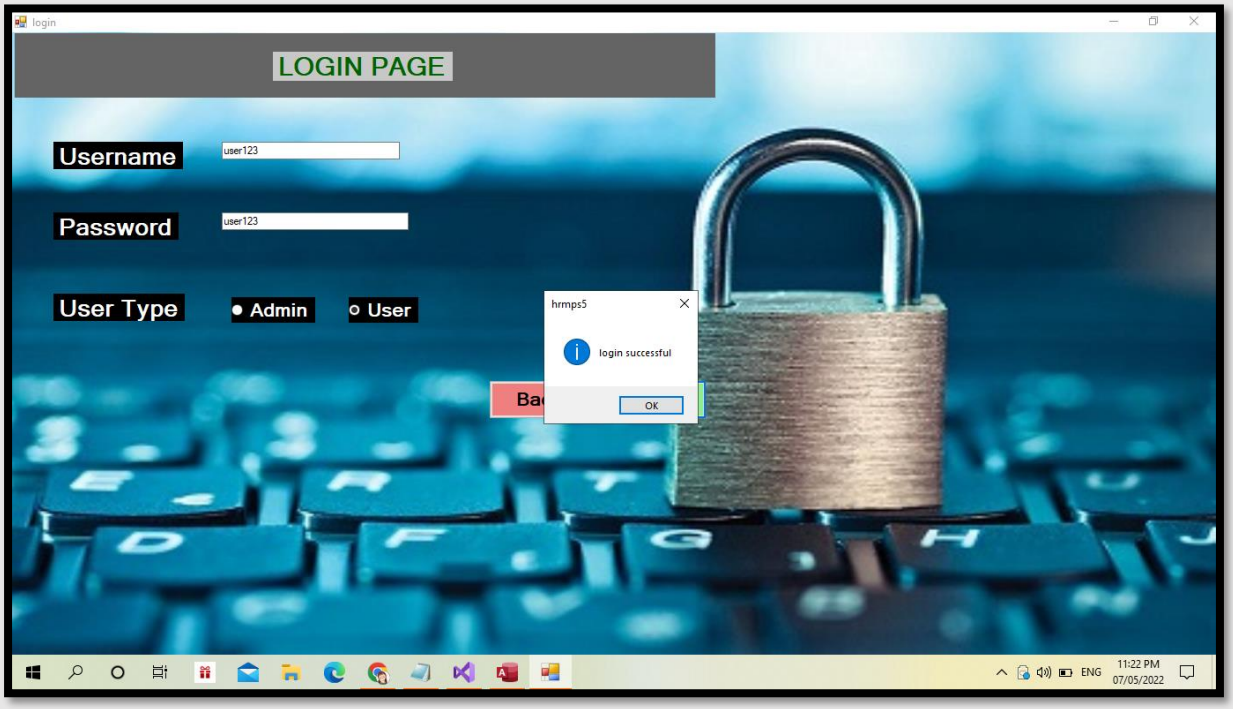
4.2 Screens and Tables

4.2.1 Logo

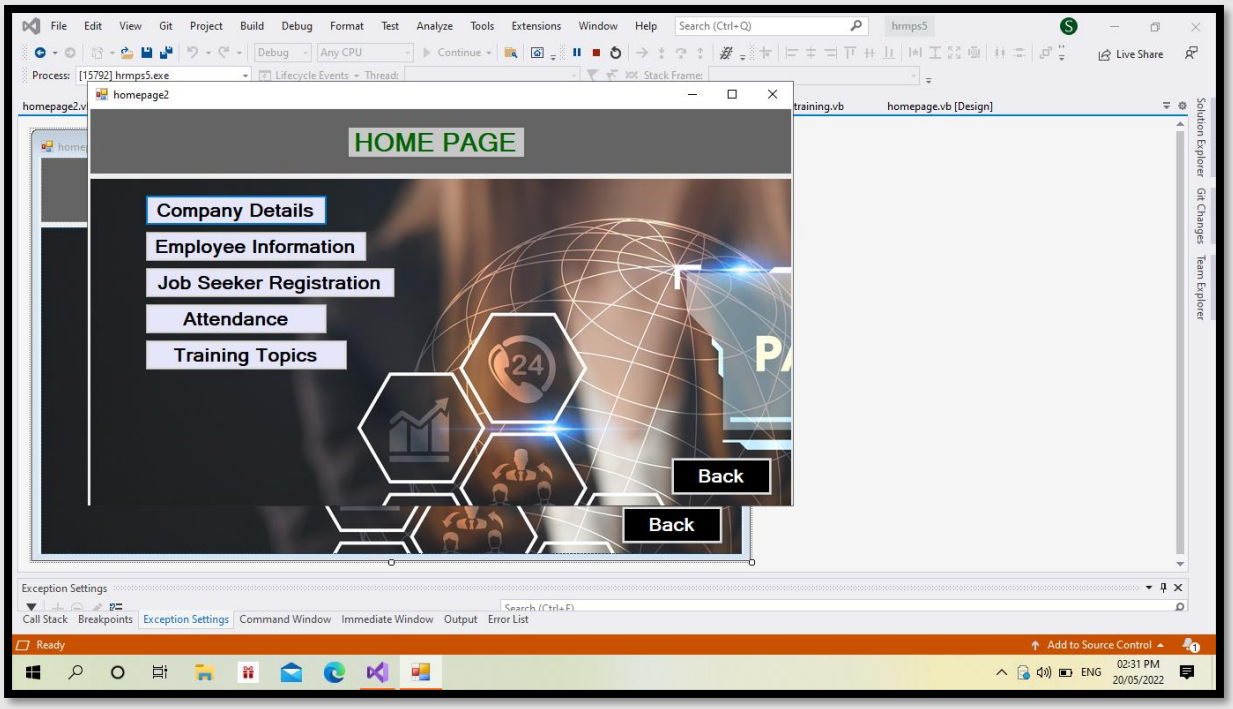
4.2.2 Help Page



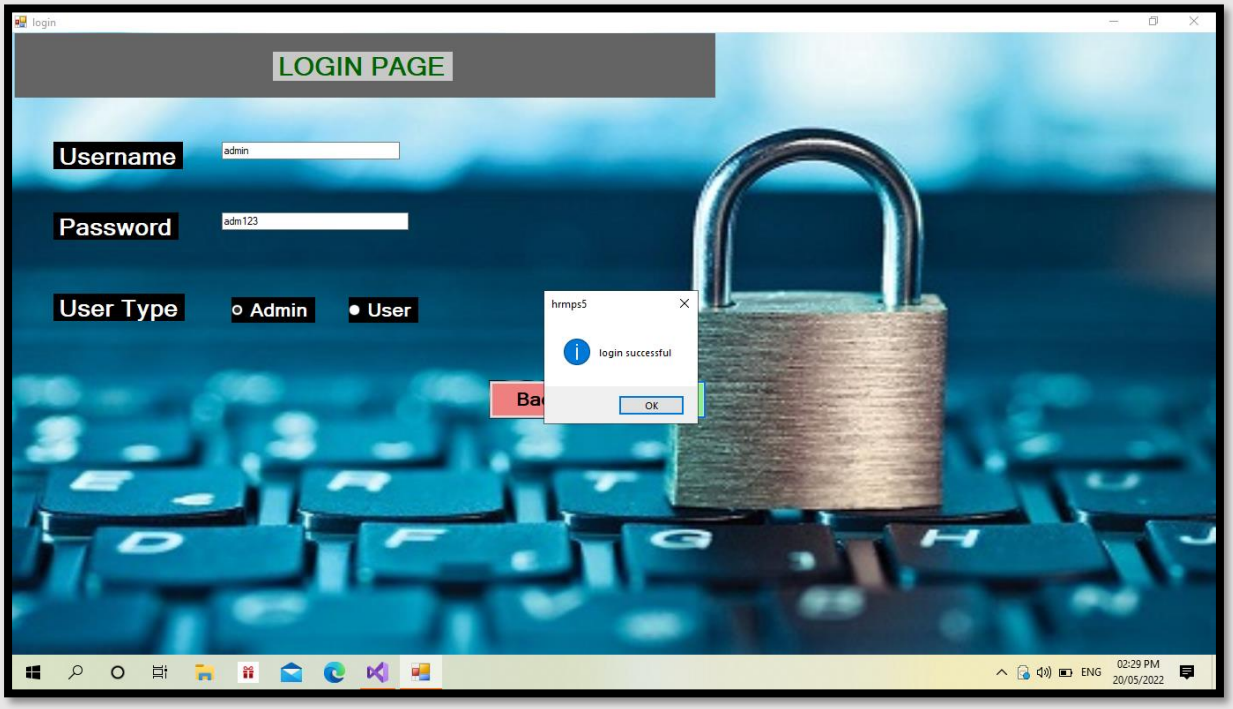
4.2.3 User Login Page



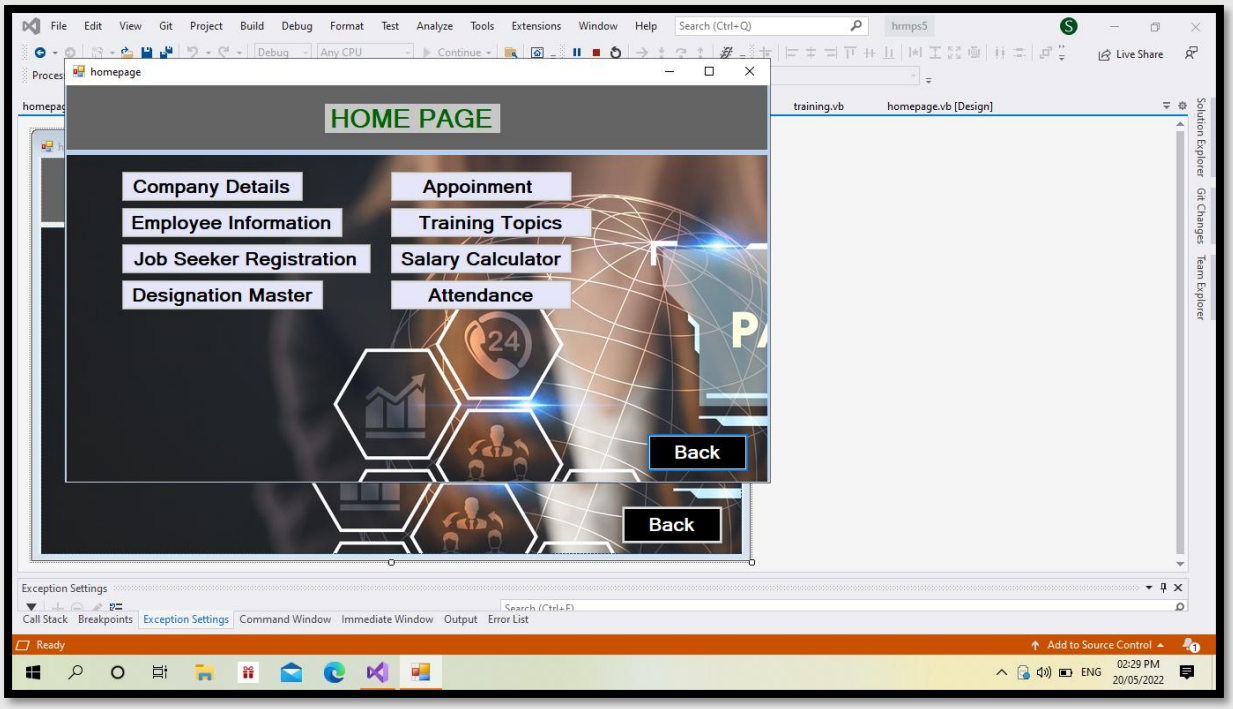
4.2.4 Homepage of User



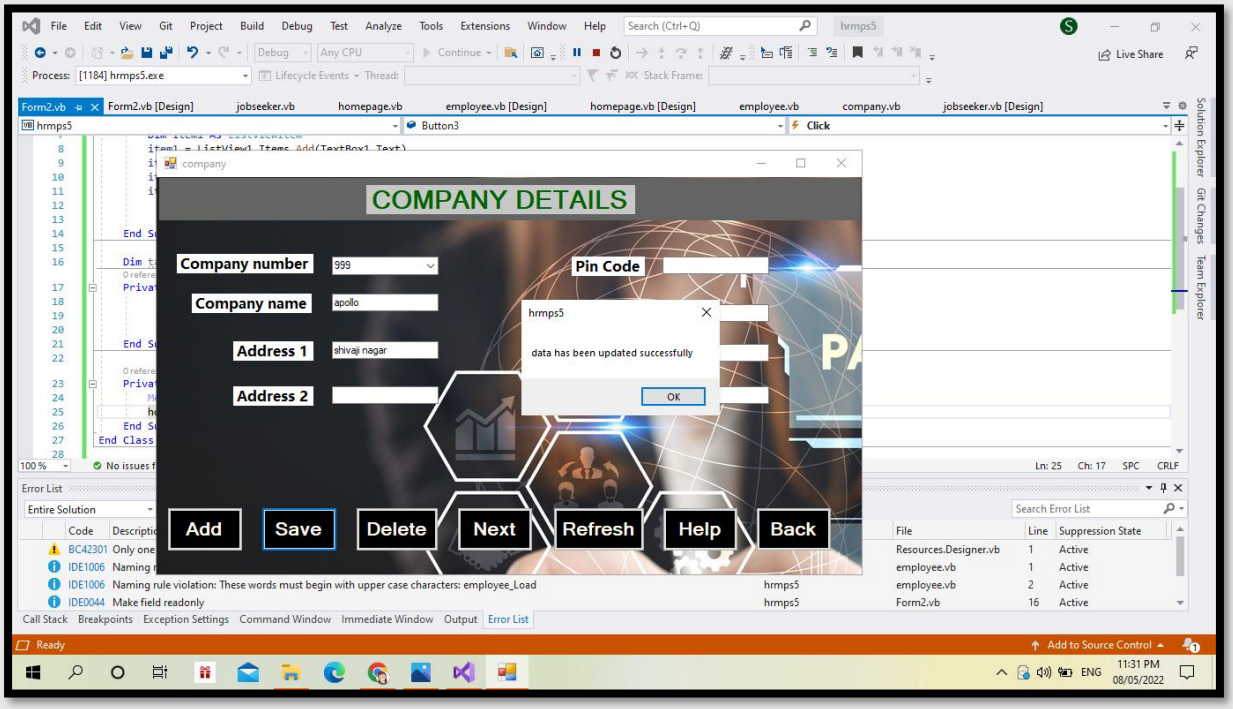
4.2.5 Admin Login Page



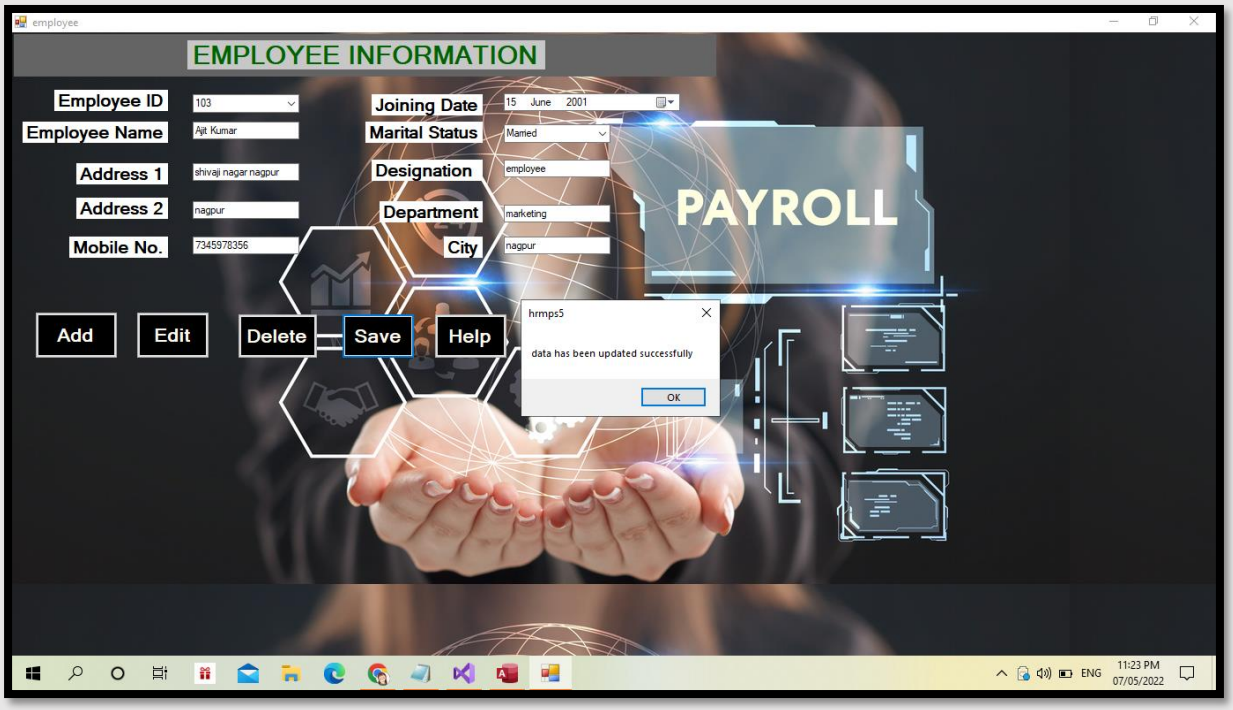
4.2.6 Homepage of Admin



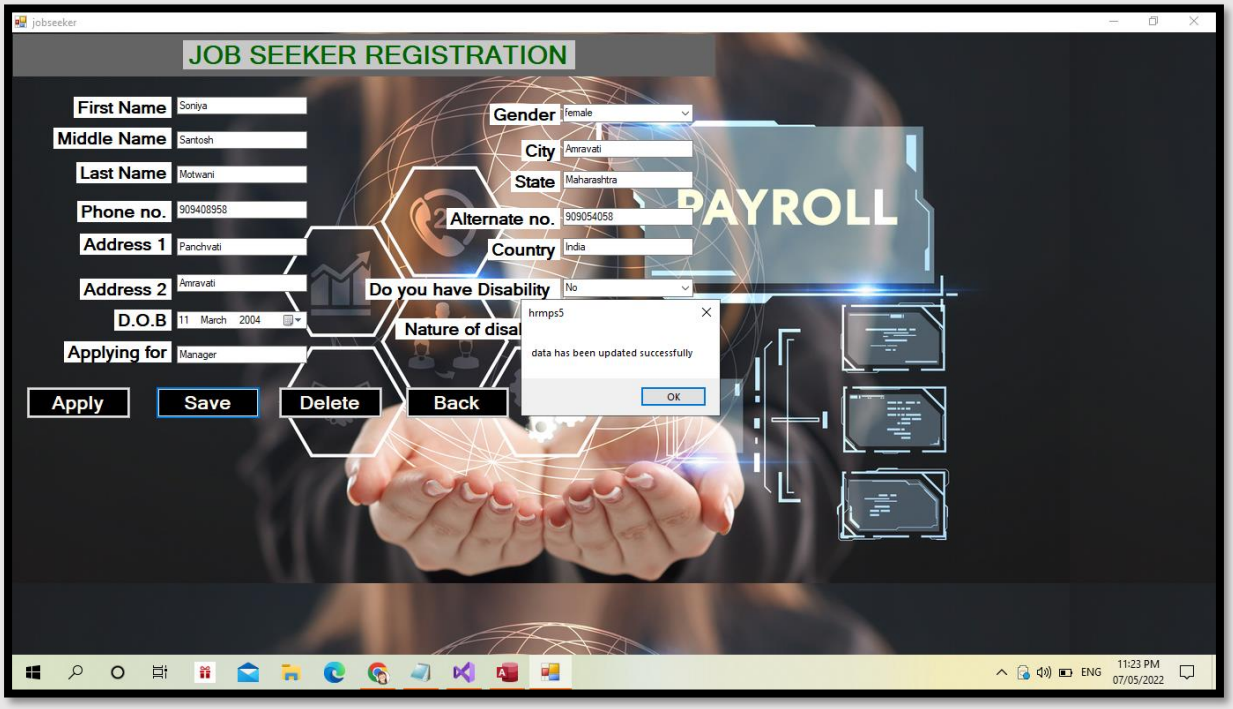
4.2.7 Company Details



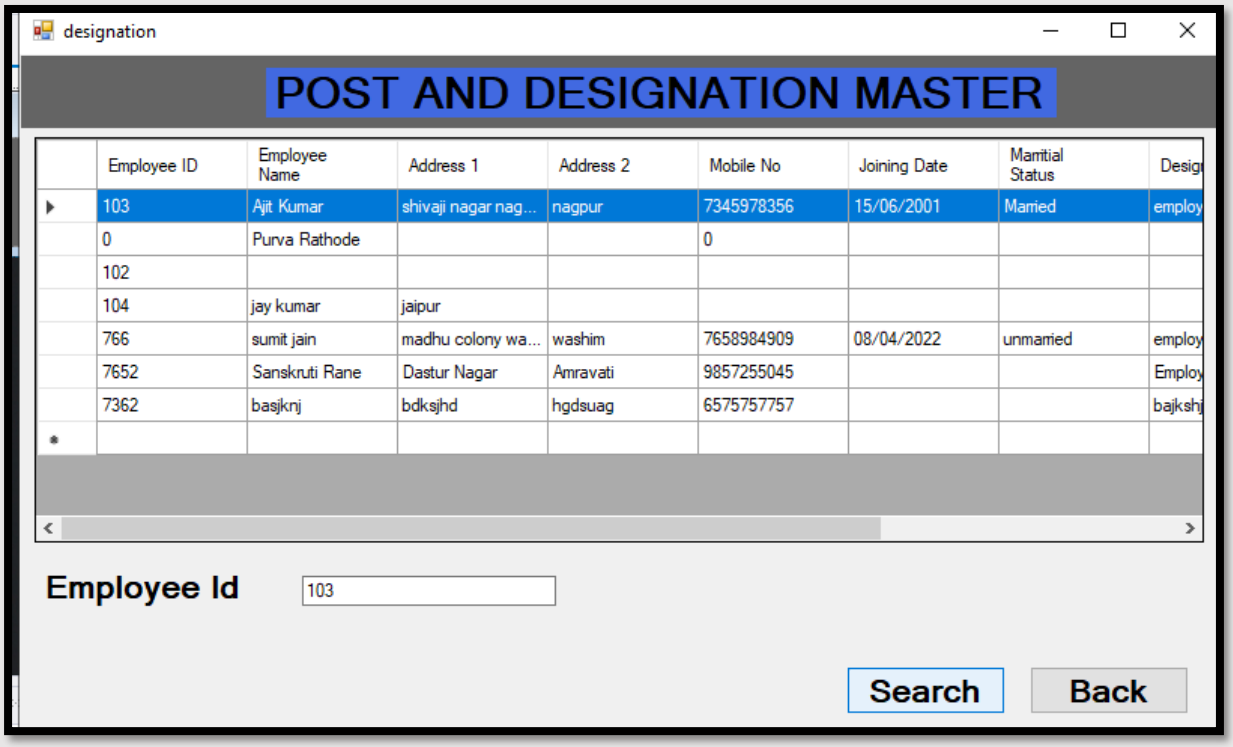
4.2.8 Employee Information



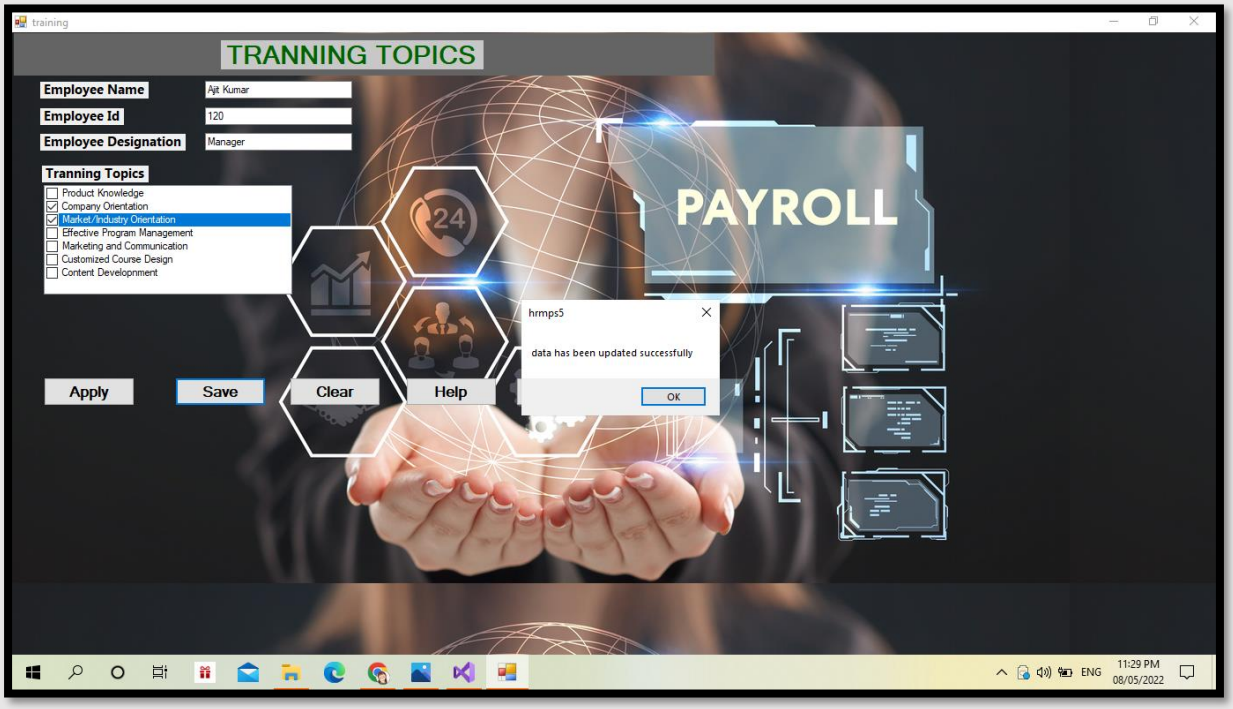
4.2.9 Job Seeker Registration



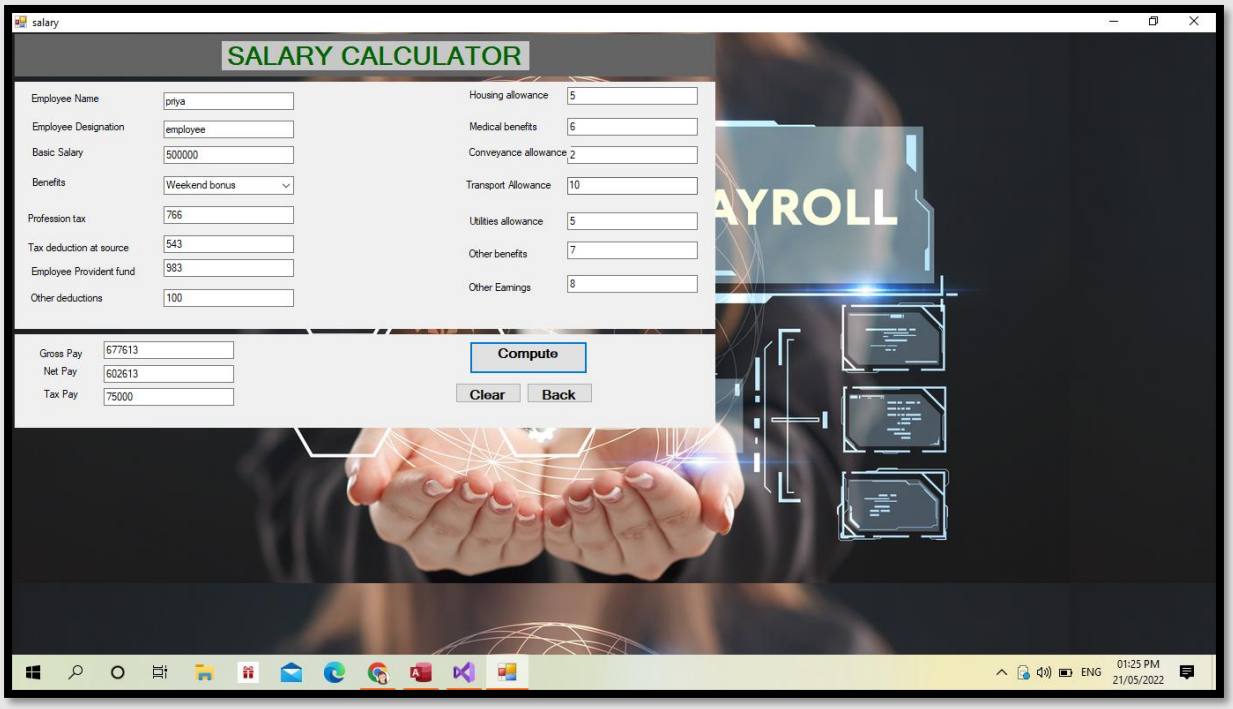
4.2.10 Post and Designation Master



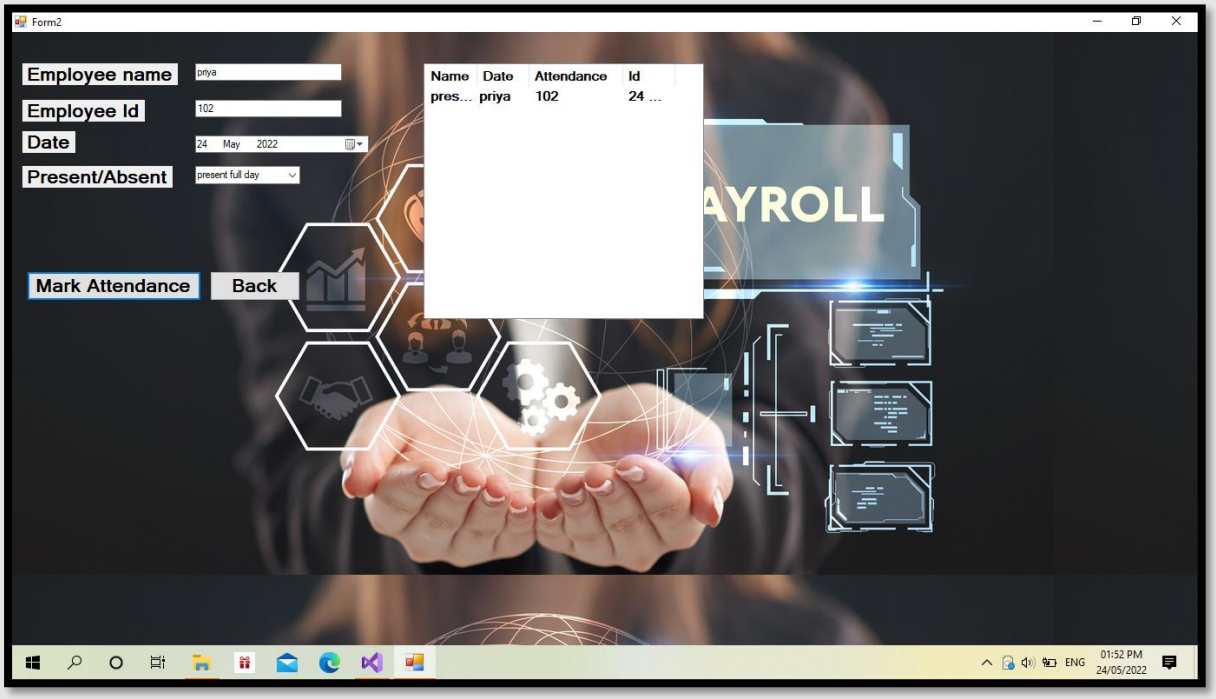
4.2.11 Training Topics



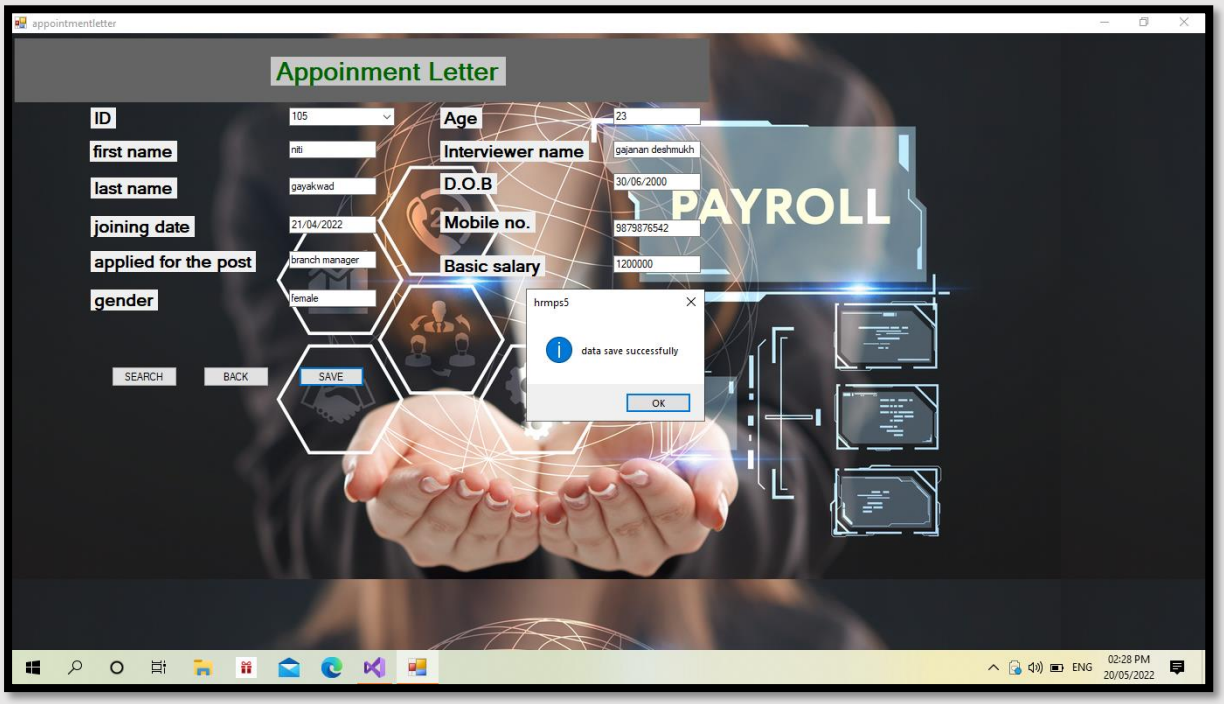
4.2.12 Salary Calculation



4.2.13 Attendance Management

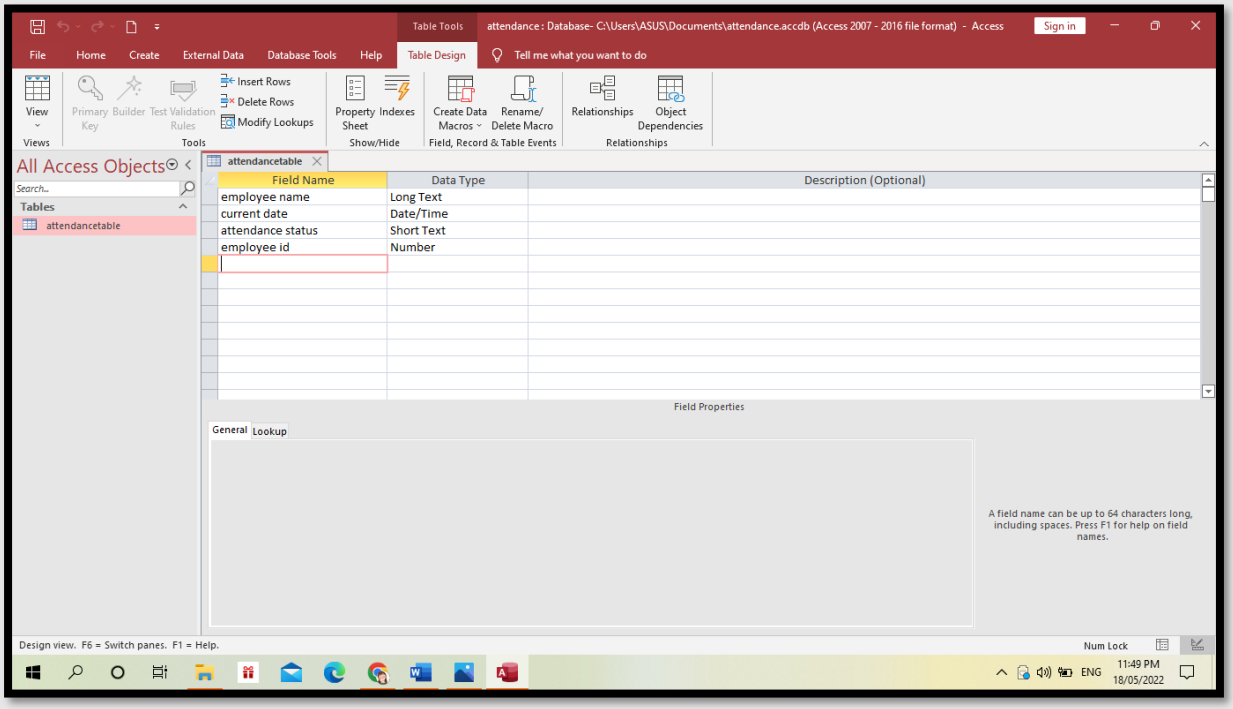


4.2.14 Appointment Letter

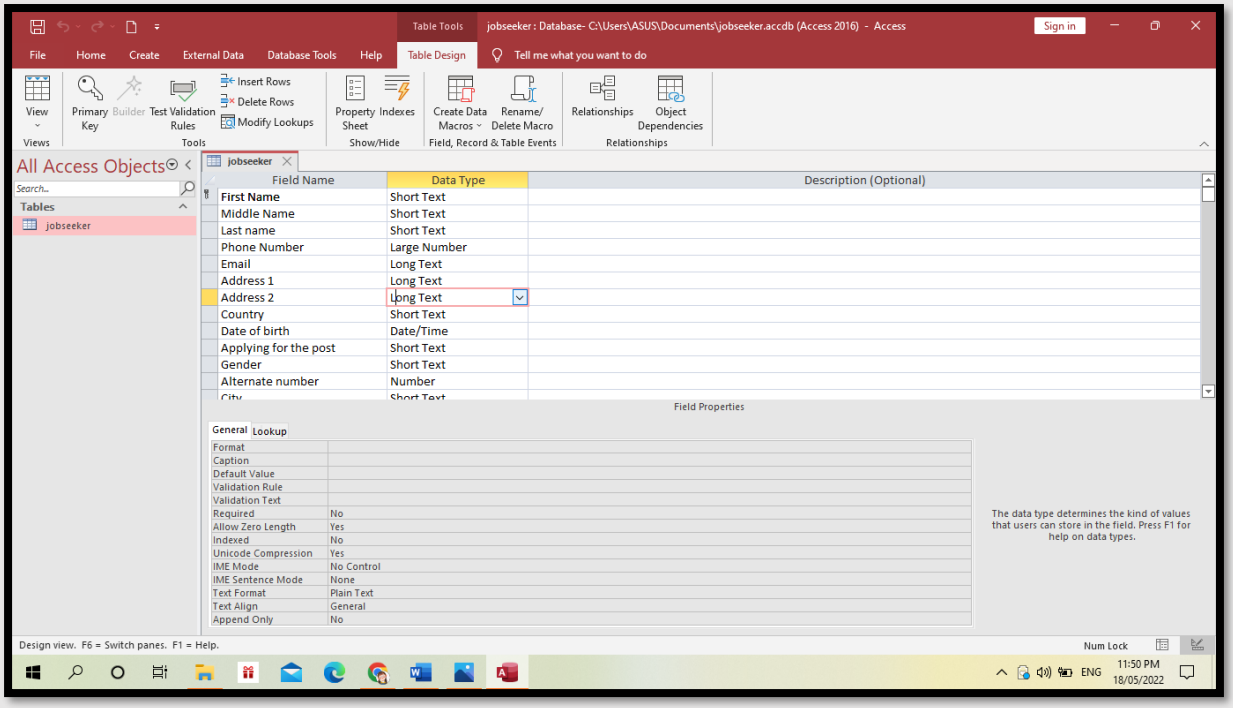


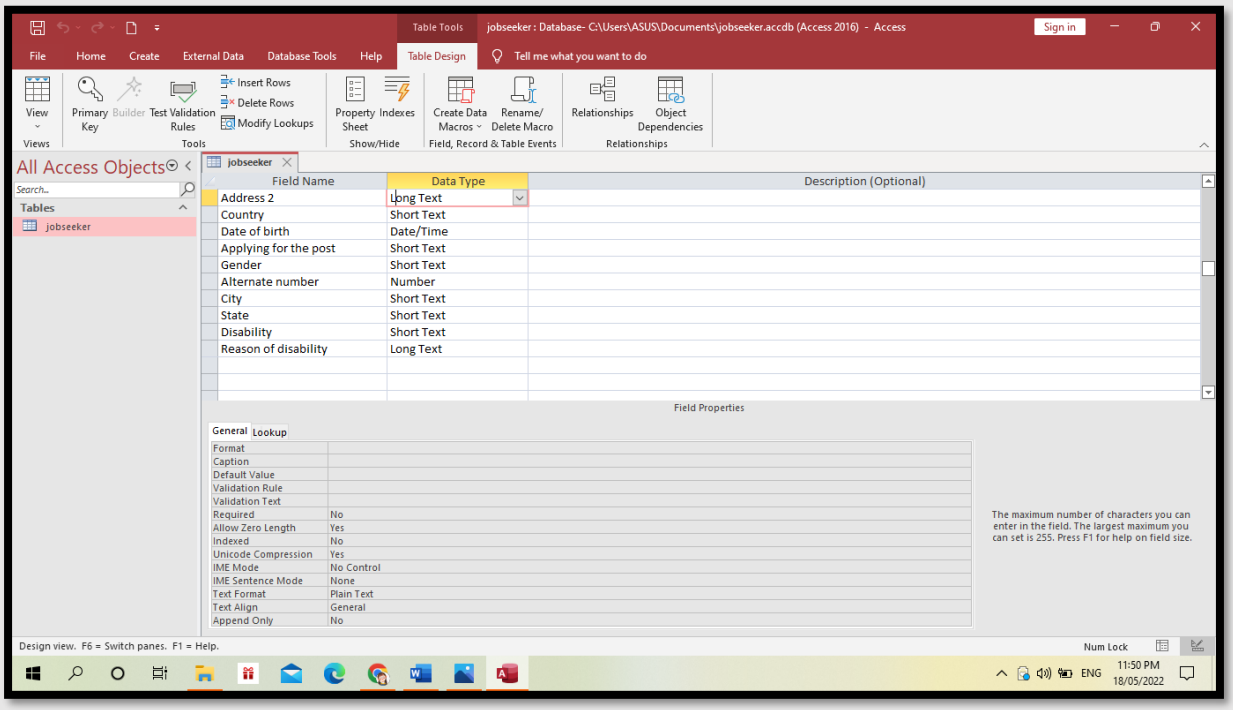
4.3 Databases/Databases Tables

4.3.1 Attendance Table

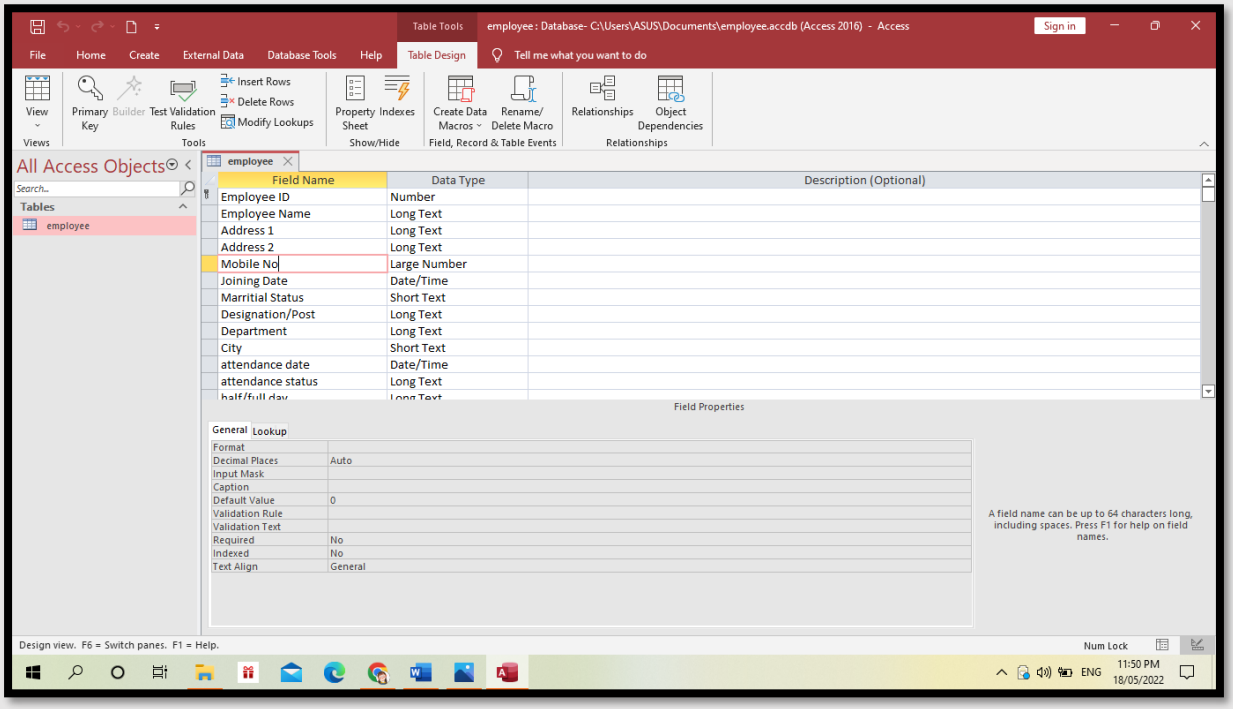


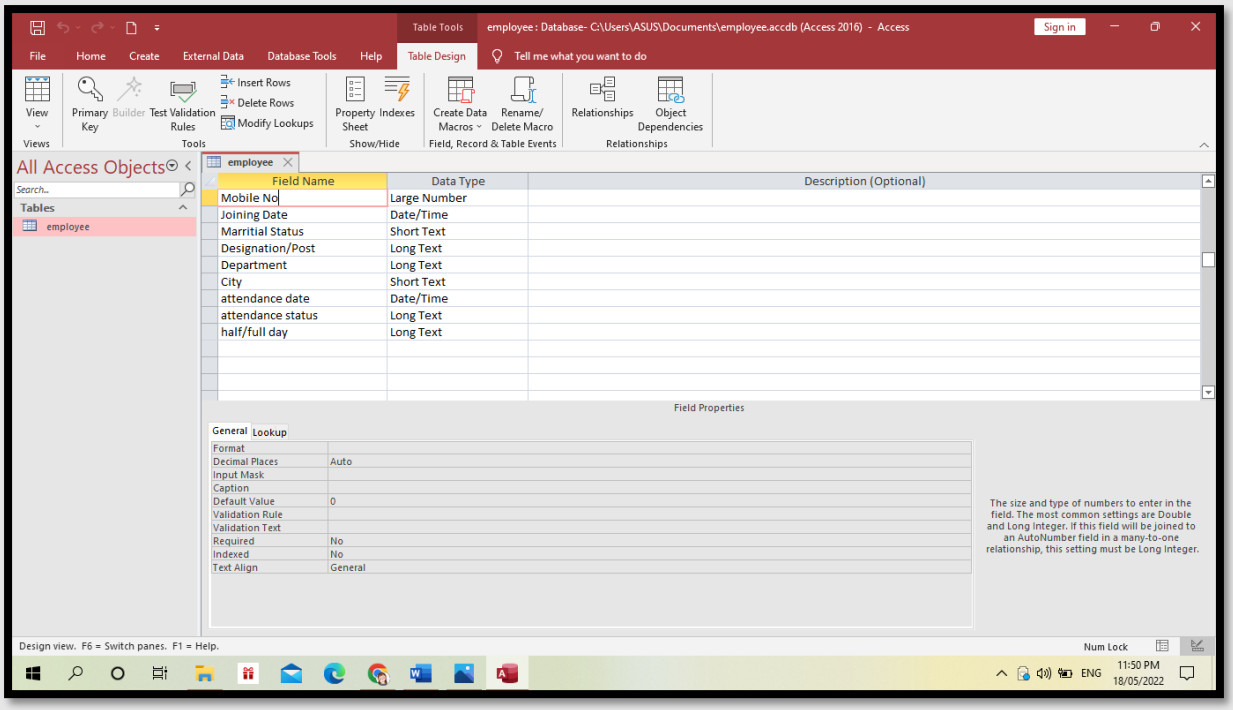
4.3.2 Job Seeker Registration Table



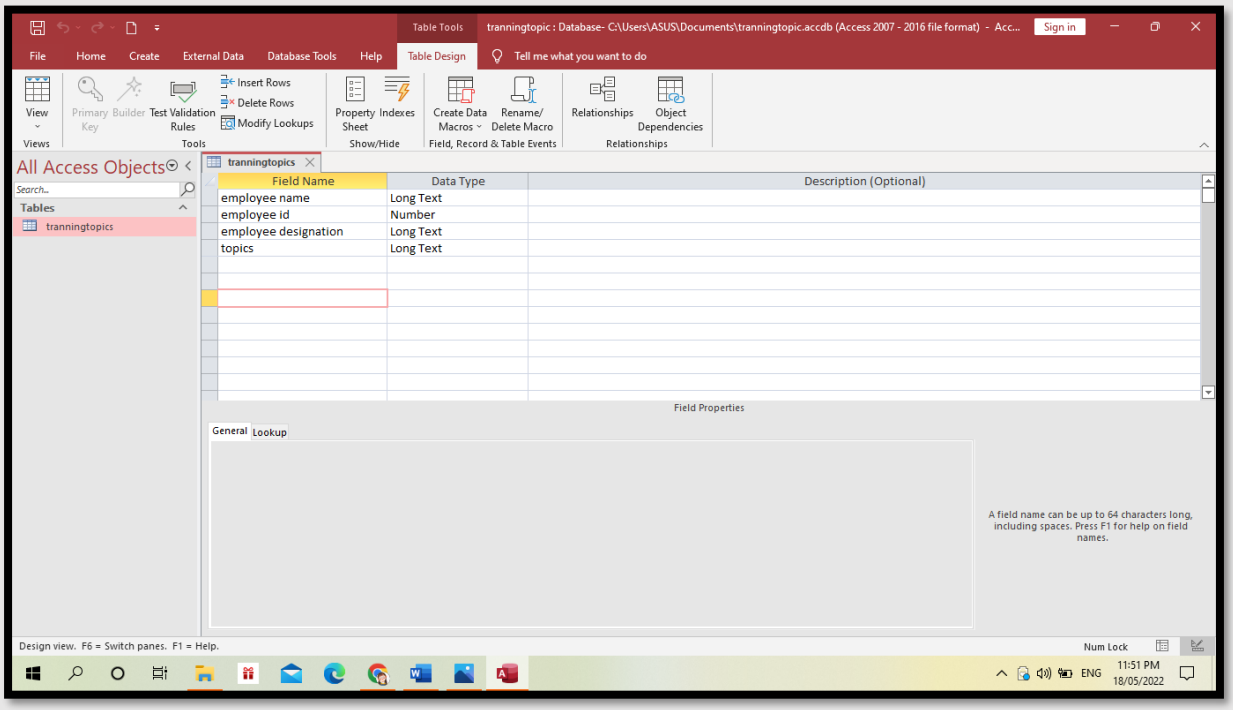


4.3.3 Employee Information Table

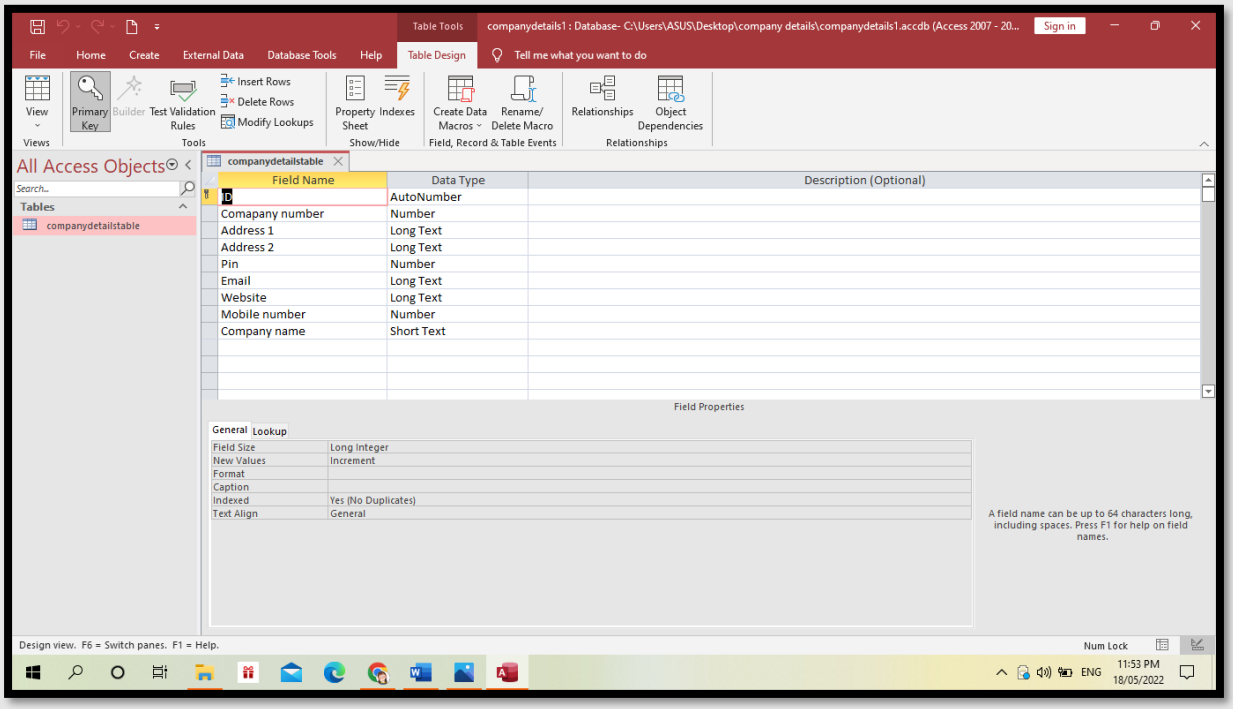




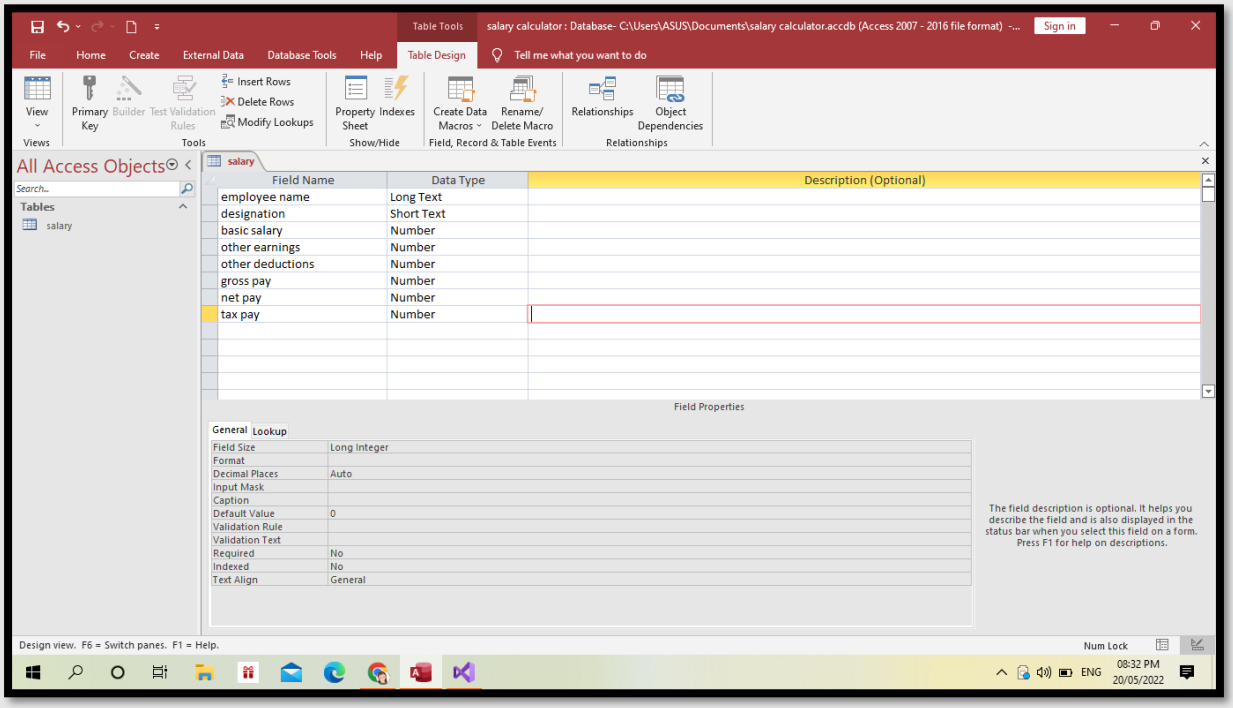
4.3.4 Training Topics Table



4.3.5 Company Details Table



4.3.6 Salary Calculation Table



4.4 Report Output:

Sr. No	Employee Name	Employee No.	Salary										
			Basic	HRA	TA	CLA	Others	total earnings	IT	PT	Others	Total deductions	Net salary
1	Sanskruti Rane	101	75000	2250	6000	6375	1500	16125	1500	2625	1875	6000	85125
2	Priya Adatiya	102	47000	1410	2820	3290	940	8460	3290	1410	2215	6915	48545
3	Shreya Kadu	103	46000	1610	3220	3680	1380	9890	3680	920	920	5520	50370
4	Soniya Motwani	104	65000	2275	5858	5858	1300	15291	5858	1950	1950	9758	70533
5	Sejal Sahare	105	45000	1350	2700	3375	900	8325	3375	900	900	5175	48150

Fig. 4.1 Table Payregister

Sr.no	Employee Id	Employee Name	Designation	Experience
1	101	Sanskruti Rane	employee	4 years
2	102	Priya Adatiya	Employee	2 years
3	103	Shreya Kadu	Employee	3 years
4	104	Soniya Motwani	Employee	4 years
5	105	Sejal Sahare	Employee	4 years
6	106	Ajit Kumar	Employee	3 years
7	107	Rahul Mishra	Employee	4 years
8	108	Priyanka Nakil	Employee	2 years

Fig. 4.2 List of Employees

Salary for the Month of January

Sr. No	Employee Name	Employee No.	Salary										
			Basic	HRA	TA	CLA	Others	Total earnings	IT	PT	Others	Total deductions	Net salary
1	Sanskruti Rane	101	75000	2250	6000	6375	1500	16125	1500	2625	1875	6000	85125

Fig. 4.3 Payslip

Summary:

In this 4th chapter we have drawn flowchart of every screen which will become easier for one who will see and understand. We also added screenshots of our project and databases of the tables where all the records are being inserted.

CHAPTER 5

CODING

5.1 Welcome page

```
Public Class Form1
    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
        Me.Hide()
        login.Show()

    End Sub

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click
        Application.Exit()

    End Sub

    Private Sub Timer1_Tick(sender As Object, e As EventArgs) Handles Timer1.Tick
        Label1.Text = Label1.Text
        If Len(Label1.Text) <> 0 Then
            Label1.Text = Microsoft.VisualBasic.Left(Label1.Text, Len(Label1.Text) - 1)
        Else
            Timer1.Enabled = False
        End If
    End Sub

    Private Sub Button3_Click(sender As Object, e As EventArgs)
        Timer1.Start()
    End Sub

    Private Sub Form1_Load(sender As Object, e As EventArgs)
    End Sub

    Private Sub Button3_Click_1(sender As Object, e As EventArgs) Handles
Button3.Click
        Me.Hide()
        help.Show()
    End Sub

    Private Sub Form1_Load_1(sender As Object, e As EventArgs) Handles
MyBase.Load

    End Sub
```

```
End Class
```

5.2 User Login Page

```
Public Class login
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click
        If RadioButton2.Checked And username.Text = "admin" AndAlso
password.Text = "adm123" Then
            MsgBox("login successful", MsgBoxStyle.Information)
            Me.Hide()
            homepage.Show()

        ElseIf username.Text = "user123" And password.Text = "user123" Then
            MsgBox("login successful", MsgBoxStyle.Information)
            Me.Hide()
            homepage.Show()

        Else
            MsgBox("Invalid data input please try again", MsgBoxStyle.Information)
        End If
    End Sub
    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
        Me.Hide()
        Form1.Show()
    End Sub
End Class
```

5.3 Homepage of User

```
Public Class homepage
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click
        Me.Hide()
        company.Show()
```

```
    End Sub

    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
        Me.Hide()
        employee.Show()
    End Sub

    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles
Button3.Click
        Me.Hide()
        jobseeker.Show()
    End Sub

    Private Sub Button5_Click(sender As Object, e As EventArgs) Handles
Button5.Click
        Me.Hide()
        login.Show()
    End Sub

    Private Sub Button6_Click(sender As Object, e As EventArgs) Handles
Button6.Click
        Me.Hide()
        training.Show()
    End Sub

    Private Sub Button8_Click(sender As Object, e As EventArgs) Handles
Button8.Click
        Me.Hide()
        Form2.Show()
    End Sub
```

5.4 Admin Login Page

```
Public Class login
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click
        If RadioButton2.Checked And username.Text = "admin" AndAlso
password.Text = "adm123" Then
            MsgBox("login successful", MsgBoxStyle.Information)
            Me.Hide()
            homepage.Show()

        ElseIf username.Text = "user123" And password.Text = "user123" Then
            MsgBox("login successful", MsgBoxStyle.Information)
            Me.Hide()
            homepage.Show()

        Else
            MsgBox("Invalid data input please try again", MsgBoxStyle.Information)
        End If
    End Sub
    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
        Me.Hide()
        Form1.Show()
    End Sub
End Class
```

5.5 Homepage of Admin

```
Public Class homepage
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click
        Me.Hide()
        company.Show()
    End Sub
```

```
    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
        Me.Hide()
        employee.Show()
    End Sub

    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles
Button3.Click
        Me.Hide()
        jobseeker.Show()
    End Sub

    Private Sub Button4_Click(sender As Object, e As EventArgs) Handles
Button4.Click
        Me.Hide()
        designation.Show()
    End Sub
    Private Sub Button5_Click(sender As Object, e As EventArgs) Handles
Button5.Click
        Me.Hide()
        login.Show()
    End Sub

    Private Sub Button6_Click(sender As Object, e As EventArgs) Handles
Button6.Click
        Me.Hide()
        training.Show()
    End Sub

    Private Sub Button7_Click(sender As Object, e As EventArgs) Handles
Button7.Click
        Me.Hide()
        salary.Show()
```

```
    End Sub

    Private Sub Button8_Click(sender As Object, e As EventArgs) Handles
Button8.Click
        Me.Hide()
        Form2.Show()
    End Sub

    Private Sub Button9_Click(sender As Object, e As EventArgs) Handles
Button9.Click
        Me.Hide()
        appointmentletter.Show()
    End Sub
End Class
```

5.6 Company Details

```
Public Class company
    Private Sub company_Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        'TODO: This line of code loads data into the
'Companydetails1DataSet.companydetailstable' table. You can move, or remove it, as
needed.
Me.CompanydetailstableTableAdapter.Fill(Me.Companydetails1DataSet.companydet
ailstab)
    End Sub

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click
        CompanydetailstableBindingSource.AddNew()
    End Sub

    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles
Button3.Click
```

```
        CompanydetailstableBindingSource.RemoveCurrent()
    End Sub

    Private Sub Button4_Click(sender As Object, e As EventArgs) Handles
Button4.Click
        On Error GoTo saveerror
        CompanydetailstableBindingSource.EndEdit()
CompanydetailstableTableAdapter.Update(Companydetails1DataSet.companydetailst
able)


Me.CompanydetailstableTableAdapter.Fill(Me.Companydetails1DataSet.companydet
ailstab)
        MsgBox("data has been updated successfully")
saveerror:
    End Sub


Private Sub Button7_Click(sender As Object, e As EventArgs) Handles Button7.Click
        Me.Hide()
        homepage.Show()
    End Sub

    Private Sub ComboBox1_SelectedIndexChanged(sender As Object, e As
EventArgs) Handles ComboBox1.SelectedIndexChanged
    End Sub

    Private Sub Button6_Click(sender As Object, e As EventArgs) Handles
Button6.Click
        Me.Hide()
        help.Show()
    End Sub
End Class
```

5.7 Employee Information

```
Public Class employee
    Private Sub employee_Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        'TODO: This line of code loads data into the 'EmployeeDataSet.employee' table.
You can move, or remove it, as needed.
        Me.EmployeeTableAdapter.Fill(Me.EmployeeDataSet.employee)
    End Sub

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click
        EmployeeBindingSource.AddNew()
    End Sub

    Private Sub Button5_Click(sender As Object, e As EventArgs) Handles
Button5.Click
        EmployeeBindingSource.RemoveCurrent()
    End Sub

Private Sub Button4_Click(sender As Object, e As EventArgs) Handles Button4.Click
        On Error GoTo saveerror

        EmployeeBindingSource.EndEdit()
        EmployeeTableAdapter.Update(EmployeeDataSet.employee)

        Me.EmployeeTableAdapter.Fill(Me.EmployeeDataSet.employee)
        MsgBox("data has been updated successfully")
saveerror:
    End Sub

    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
        Me.Hide()
```

```
        homepage.Show()
    End Sub

    Private Sub ComboBox2_SelectedIndexChanged(sender As Object, e As
EventArgs) Handles ComboBox2.SelectedIndexChanged
    End Sub

    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles
Button3.Click
        Me.Hide()
        help.Show()
    End Sub

    Private Sub Label1_Click(sender As Object, e As EventArgs) Handles
Label1.Click
    End Sub

    Private Sub Button6_Click(sender As Object, e As EventArgs) Handles
Button6.Click
    End Sub

   Private Sub Button8_Click(sender As Object, e As EventArgs)
    End Sub
    Private Sub EmployeeBindingSource_CurrentChanged(sender As Object, e As
EventArgs) Handles EmployeeBindingSource.CurrentChanged
    End Sub

    Private Sub EmployeeBindingSource1_CurrentChanged(sender As Object, e As
EventArgs) Handles EmployeeBindingSource1.CurrentChanged
    End Sub
End Class
```

5.8 Job Seeker Registration

```
Public Class jobseeker

    Private Sub jobseeker_Load(sender As Object, e As EventArgs) Handles
MyBase.Load

        'TODO: This line of code loads data into the 'JobseekerDataSet.jobseeker' table.
You can move, or remove it, as needed.

        Me.JobseekerTableAdapter.Fill(Me.JobseekerDataSet.jobseeker)

    End Sub


    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click

        JobseekerBindingSource.AddNew()

    End Sub


    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click

        JobseekerBindingSource.RemoveCurrent()

    End Sub


    Private Sub Button4_Click(sender As Object, e As EventArgs) Handles
Button4.Click

        Me.Hide()

        homepage.Show()

    End Sub


    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles
Button3.Click

        On Error GoTo saveerror


        JobseekerBindingSource.EndEdit()

        JobseekerTableAdapter.Update(JobseekerDataSet.jobseeker)
```

```
        Me.JobseekerTableAdapter.Fill(Me.JobseekerDataSet.jobseeker)
        MsgBox("data has been updated successfully")
saveerror:
    End Sub

    Private Sub Label7_Click(sender As Object, e As EventArgs) Handles
Label7.Click
    End Sub
    Private Sub Label8_Click(sender As Object, e As EventArgs) Handles
Label8.Click
    End Sub
    Private Sub TextBox13_TextChanged(sender As Object, e As EventArgs) Handles
TextBox13.TextChanged
    End Sub
End Class
```

5.9 Post and Designation Master

```
Public Class designation
    Private Sub designation_Load(sender As Object, e As EventArgs) Handles
MyBase.Load
        'TODO: This line of code loads data into the 'EmployeeDataSet.employee' table.
You can move, or remove it, as needed.
        Me.EmployeeTableAdapter.Fill(Me.EmployeeDataSet.employee)
    End Sub

    Private Sub btnsearch_Click(sender As Object, e As EventArgs) Handles
btnsearch.Click
        If txtsearch.Text = " " Then
            Call notfound()
            Exit Sub
        Else
            EmployeeBindingSource.Filter = "(convert(Employee Id, 'system.string')
LIKE '" & txtsearch.Text & "')" &
```

```
            "OR (Employee Name LIKE'" & txtsearch.Text & "')"
        If EmployeeBindingSource.Count <> 0 Then
            With DataGridView1
                .DataSource = EmployeeBindingSource
            End With
        Else
            MsgBox("search item was not found")
            EmployeeBindingSource.Filter = Nothing
        End If
    End If
End Sub

Private Sub notfound()
End Sub

Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
    Me.Hide()
    homepage.Show()
End Sub
End Class
```

5.10 Training Topics

```
Public Class training

    Private Sub training_Load(sender As Object, e As EventArgs) Handles
MyBase.Load

        'TODO: This line of code loads data into the
'TranningtopicDataSet1.tranningtopics' table. You can move, or remove it, as needed.

Me.TranningtopicsTableAdapter1.Fill(Me.TranningtopicDataSet1.tranningtopics)

        'TODO: This line of code loads data into the
'TranningtopicDataSet.tranningtopics' table. You can move, or remove it, as needed.

        Me.TranningtopicsTableAdapter.Fill(Me.TranningtopicDataSet.tranningtopics)

    End Sub
```

```
    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click
        TranningtopicsBindingSource.AddNew()
    End Sub

    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
        TranningtopicsBindingSource.RemoveCurrent()
    End Sub

    Private Sub Button6_Click(sender As Object, e As EventArgs) Handles
Button6.Click
        On Error GoTo saveerror

        TranningtopicsBindingSource.EndEdit()
        TranningtopicsTableAdapter.Update(TranningtopicDataSet.tranningtopics)

        Me.TranningtopicsTableAdapter.Fill(Me.TranningtopicDataSet.tranningtopics)
        MsgBox("data has been updated successfully")

saveerror:
    End Sub
    Private Sub Button5_Click(sender As Object, e As EventArgs) Handles
Button5.Click
        Me.Hide()
        homepage.Show()
    End Sub

    Private Sub Button4_Click(sender As Object, e As EventArgs) Handles
Button4.Click
        Me.Hide()
        help.Show()
```

```
    End Sub

    Private Sub TextBox3_TextChanged(sender As Object, e As EventArgs) Handles
TextBox3.TextChanged

    End Sub

End Class
```

5.11 Salary Calculation

```
Public Class salary

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click

        Dim sal As Double

        Dim how As Double

        Dim con As Double

        Dim med As Double

        Dim tran As Double

        Dim util As Double

        Dim bonus As Double

        Dim gross As Double

        Dim net As Double

        Dim tax As Double

        Dim oth As Double

        Dim pro As Double

        Dim ptax As Double

        Dim emp As Double

        Dim othd As Double

        Dim othe As Double

        Dim sala As Double

        Dim salar As Double


        TextBox4.Text = Val(txtbasicSalary.Text) + Val(TextBox2.Text)

        TextBox4.Text = Val(txtbasicSalary.Text) - Val(TextBox7.Text)
```

```
sal = Convert.ToDecimal(txtbasicSalary.Text)

how = Val(TextBox8.Text) / 100 * sal
con = Val(TextBox10.Text) / 100 * sal
tran = Val(TextBox11.Text) / 100 * sal
med = Val(TextBox9.Text) / 100 * sal
util = Val(TextBox12.Text) / 100 * sal
oth = Val(TextBox13.Text) / 100 * sal
pro = Val(TextBox16.Text)
ptax = Val(TextBox15.Text)
emp = Val(TextBox14.Text)
othd = Val(TextBox7.Text)
othe = Val(TextBox12.Text)

TextBox4.Text = Val(txtbasicSalary.Text) + how
TextBox4.Text = Val(txtbasicSalary.Text) + con
TextBox4.Text = Val(txtbasicSalary.Text) + tran
TextBox4.Text = Val(txtbasicSalary.Text) + med
TextBox4.Text = Val(txtbasicSalary.Text) + util
TextBox4.Text = Val(txtbasicSalary.Text) + oth
TextBox4.Text = Val(txtbasicSalary.Text) + othe
TextBox4.Text = Val(txtbasicSalary.Text) - pro
TextBox4.Text = Val(txtbasicSalary.Text) - ptax
TextBox4.Text = Val(txtbasicSalary.Text) - emp
TextBox4.Text = Val(txtbasicSalary.Text) – othd

If cmbBenefit.Text = "New year bonus" Then
   bonus = 3500

End If
```

```
        If cmbBenefit.Text = "Diwali bonus" Then
        bonus = 5000
      End If
      If cmbBenefit.Text = "Weekend bonus" Then
        bonus = (1 / 100) * sal
     End If
      If cmbBenefit.Text = "Overtime bonus" Then
        bonus = 6500

      End If
      sala = bonus + how + med + tran + con + util + othe + oth + sal
      salar = pro + ptax + emp + othd
      gross = sala - salar

      tax = (15 / 100) * sal
      net = gross - tax
      TextBox4.Text = Convert.ToDouble(gross)
      TextBox5.Text = Convert.ToDouble(net)
      TextBox6.Text = Convert.ToDouble(tax)
  End Sub

  Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
      TextBox1.Clear()
      TextBox3.Clear()
      txtbasicSalary.Clear()
      cmbBenefit.Text = ""
      TextBox4.Clear()
      TextBox5.Clear()
      TextBox6.Clear()
  End Sub
```

```
    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles
Button3.Click
        Me.Hide()
        homepage.Show()
    End Sub

    Private Sub salary_Load(sender As Object, e As EventArgs) Handles
MyBase.Load
    End Sub

    Private Sub CheckBox5_CheckedChanged(sender As Object, e As EventArgs)
Handles CheckBox5.CheckedChanged
    End Sub

    Private Sub TextBox7_TextChanged(sender As Object, e As EventArgs) Handles
TextBox7.TextChanged
    End Sub

    Private Sub TextBox16_TextChanged(sender As Object, e As EventArgs) Handles
TextBox16.TextChanged
    End Sub

    Private Sub TextBox15_TextChanged(sender As Object, e As EventArgs) Handles
TextBox15.TextChanged
    End Sub

    Private Sub TextBox14_TextChanged(sender As Object, e As EventArgs) Handles
TextBox14.TextChanged
    End Sub
End Class
```

5.12 Attendance Management

```
Imports System.Data.DataTable

Public Class Form2

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click

        Dim item1 As ListViewItem
```

5.13 List of Employees

```
        item1 = ListView1.Items.Add(TextBox1.Text)

        item1.SubItems.Add(TextBox2.Text)

        item1.SubItems.Add(DateTimePicker1.Text)

        item1.SubItems.Add(ComboBox1.Text)

    End Sub


    Dim table As New DataTable("table")

    Private Sub Form2_Load(sender As Object, e As EventArgs) Handles MyBase.Lo

    End Sub


    Private Sub Button3_Click(sender As Object, e As EventArgs) Handles
Button3.Click

        Me.Hide()

        homepage.Show()

    End Sub


    Private Sub ComboBox1_SelectedIndexChanged(sender As Object, e As

EventArgs) Handles ComboBox1.SelectedIndexChanged

    End Sub

End Class
```

5.14 Appointment Letter

```
Imports System.Data.OleDb

Public Class appointmentletter

    Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click

        Try

            Dim conn As New
OleDbConnection("Provider=Microsoft.ACE.OLEDB.12.0;Data
source=Documents:\Names2.xlsx;Extended Properties=Excel 8.0")

            conn.Open()

            Dim cmd As New OleDbCommand("Select
Name,joiningdate,gender,post,age,interviewername,dob,phoneno from [sheet4$]
where id=@id1", conn)

            cmd.Parameters.AddWithValue("id1", TextBox1.Text)

            Dim myreader As OleDbDataReader

            myreader = cmd.ExecuteReader

            If myreader.Read Then

                TextBox2.Text = myreader("Name")

                TextBox3.Text = myreader("joiningdate")

                TextBox4.Text = myreader("gender")

                TextBox5.Text = myreader("post")

                TextBox6.Text = myreader("age")


            Else

                TextBox2.Text = ""

                TextBox3.Text = ""

                TextBox4.Text = ""

                TextBox5.Text = ""

                TextBox6.Text = ""

                MessageBox.Show("no data found")

            End If
```

```
            conn.Close()
        Catch
        End Try
    End Sub

    Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
        Me.Hide()
        homepage.Show()
    End Sub
    Private Sub TextBox1_TextChanged(sender As Object, e As EventArgs) Handles
TextBox1.TextChanged

    End Sub
End Class
```

Summary:

In this 5th chapter we added coding of our project, through which we prepared our screens, code of every screen can be clearly visible and we have done our coding in VB.Net, which made our code and screen more attractive and representable.

CHAPTER 6
SCOPE AND LIMITATIONS

6.1 Scope

The payroll system is part of the human resource management system. Activities carried out from the payroll system are processes of data from the management of human resources. The input score of the payroll process is data that comes from any actors. Based on the results of interviews, documentation and observations of the author, the following analysis of the scope of the problems that occur in the human resource management system and payroll PT X using the PIECES framework.

1. **Performance**

Data collection is late in entering HR Payroll, so it requires integration of payroll systems with human resource management system so as to speed up the salary calculation process.

2. **Information**

There are some data that are not filled, tucked, and not inputted, so data input is needed automatically through a website-based system with verification via e-mail.

3. **Economics**

Storage of information supporting data on the payroll process that still uses hardcopy meets the storage filling cabinet, so that it is necessary to store information on supporting data for the payroll process in an online database.

4. **Control or Security**

The HR payroll selection is often overtime at the payroll period because the database is not yet integrated so it needs to be re-validated to avoid human error, so that the employee self-service approach allows employees to do all matters relating to human management online.

5. **Efficiency**

Management of the payroll process supporting data cannot be managed by each employee at any time, so a system is needed for employees to do all matters relating to human resource management online without the need for departmental admin assistance.

6. **Services**

Providing employee salaries often experiences delays because the supporting data for the salary calculation process are still done manually, so that an information system for human resource management and payroll is needed that is able to provide the payroll process supporting data quickly and accurately.

Human resources are undoubtedly the key resources in an organization, the easiest and the most difficult to manage! The objectives of the HRM span right from the manpower needs assessment to management and retention of the same. To this effect Human resource management is responsible for effective designing and implementation of various policies, procedures and programs. It is all about developing and managing knowledge, skills, creativity, aptitude and talent and using them optimally.

Human Resource Management is not just limited to manage and optimally exploit human intellect. It also focuses on managing physical and emotional capital of employees. Considering the intricacies involved, the scope of HRM is widening with every passing day.

It covers but is not limited to HR planning, hiring (recruitment and selection), training and development, payroll management, rewards and recognitions, Industrial relations, grievance handling, legal procedures etc. In other words, we can say that it's about developing and managing harmonious relationships at workplace and striking a balance between organizational goals and individual goals.

The scope of HRM is extensive and far-reaching. Therefore, it is very difficult to define it concisely. However, we may classify the same under following heads:

HRM in Personnel Management: This is typically direct manpower management that involves manpower planning, hiring (recruitment and selection), training and

development, induction and orientation, transfer, promotion, compensation, layoff and retrenchment, employee productivity. The overall objective here is to ascertain individual growth, development and effectiveness which indirectly contribute to organizational development. It also includes performance appraisal, developing new skills, disbursement of wages, incentives, allowances, traveling policies and procedures and other related courses of actions.

HRM in Employee Welfare: This particular aspect of HRM deals with working conditions and amenities at workplace. This includes a wide array of responsibilities and services such as safety services, health services, welfare funds, social security and medical services. It also covers appointment of safety officers, making the environment worth working, eliminating workplace hazards, support by top management, job safety, safeguarding machinery, cleanliness, proper ventilation and lighting, sanitation, medical care, sickness benefits, employment injury benefits, personal injury benefits, maternity benefits, unemployment benefits and family benefits. It also relates to supervision, employee counselling, establishing harmonious relationships with employees, education and training. Employee welfare is about determining employees' real needs and fulfilling them with active participation of both management and employees. In addition to this, it also takes care of canteen facilities, crèches, rest and lunch rooms, housing, transport, medical assistance, education, health and safety, recreation facilities, etc.

HRM in Industrial Relations: Since it is a highly sensitive area, it needs careful interactions with labour or employee unions, addressing their grievances and settling the disputes effectively in order to maintain peace and harmony in the organization. It is the art and science of understanding the employment (union-management) relations, joint consultation, disciplinary procedures, solving problems with mutual efforts, understanding human behaviour and maintaining work relations, collective bargaining and settlement of disputes.

The main aim is to safeguarding the interest of employees by securing the highest level of understanding to the extent that does not leave a negative impact on organization. It is about establishing, growing and promoting industrial democracy to safeguard the interests of both employees and management.

The scope of HRM is extremely wide, thus, can not be written concisely. However, for the sake of convenience and developing understanding about the subject, we divide it in three categories mentioned above.

According to KPGM report, 3 in 5 HR leaders believe that the HR function may become irrelevant if it dosen't modernize its approach. Only 37% of HR leaders are very confident in Hr's ability to transform the workforce and itself. This highlights the importance of Hr professionals future-proofing their skills. If they want to stay relevant their skills need to be relevant too. As we now have an idea about the skills HR professionals will need to succeed in the future, we can start to think about what the various HR roles in the future could look like. While there will start be a need for an all-around, generalist type of HR professional, they will need to be equipped with a new range of skills. At the same time – driven by current developments on a technological and global workforce level – there will be a need for HR specialists who are, next to having the core skills, experts in their specific area of HR. The scope of Human Resource is very wide:

1. **Personal aspect** – This is concerned with manpower planning, recruitment, selection, placement, transfer, promotion, training and development, layoff and retrenchment, remuneration, incentives, productivity, etc.

2. **Welfare aspect** – It deals with working conditions and amenities such as canteens, rest and lunch rooms, housing, transport, medical assistance, education, health and safety, recreation, facilities, etc.

3. **Industrial relations aspect** – this covers union – management relations, joint consultation, collection bargaining, grievance and disciplinary procedures, settlement of disputes, etc.

6.2 Limitations

If your small business employee workers, you must have a reliable payroll system. If your company only has a few employees, you may be able to get by with a manual process. However, once your business start to grow, you may decide to use payroll software to handle your payroll tasks. Payroll software can provide your business with

many benefits, such as greater efficiency, a reduction in the likehood of errors, and less stress related to your employee reporting obligations. But, using a payroll software system isn't all rosy either. If you're considering payroll software for you're business, you need know about the well documented shortcoming and limitations of payroll software too.

Lists of limitations available for HR and Payroll system:

1. **Payroll software can be expensive:**

You must purchase and maintain your software, which can be costly. The amount you pay depends on the type of plan you purchase – monthly subscription, per-user-pricing, quote-based pricing where you only pay for the features you need, one-time licensing, or a software bundle. Plus, you'll likely need to purchase regular upgrades to your system. Not purchasing these upgrades could result in incorrect payroll reporting when new tax laws are implemented.

2. **You may need to hire staff to process your payroll:**

When you purchase payroll software, you may need to hire and train someone to take under responsibility of using it. An added employee comes with the additional cost of salary and benefits. Additionally, if you ever have any software glitches, you may incur technical support costs, too.

3. **You must constantly backup your payroll data:**

Payroll processing creates mountains of data with each payroll cycle. Per federal law, this data must be retained for all current and former employees for a certain length of time depending on the statute the information pertains. Therefore, you must have a system in place to constantly archive this data. You or an employee must set aside the time each day to perform this backup.

4. **Access to payroll software may be limited:**

In most cases, when you buy payroll software, it's loaded on to one computer. This means the software can only be accessed using that one machine. If that computer goes on the fritz, you won't be able to process your payroll using your software. This can lead to a lot of stress for you, your payroll administrator, and your employees.

5. **Your payroll software may lead to holding errors:**

According to the Internal Revenue Service, some payroll software systems can't tell the difference between additional voluntary withholding amounts and regular withholding amounts when it calculates catch-up withholding for a current tax year. Not all payroll software programs have this problem. Therefore, you need to identify if your program has this glitch and account for it in your payroll processing. Otherwise, your business could be fined for under-withholding.

6. **Lack of support of top management:**

Human resource should have the support of top-level management. The change in attitude at the top can bring good result while implementing human resource.

7. **Improper actualisation:**

Human resources should be implemented assessing requirements of employees. The organising of some training programmes is considered as a implementation of HR.

8. **Inadequate development programmes:**

Human resource needs implementation of programmes such as career planning, on the job training development programmes, etc.

9. **Inadequate information:**

Some enterprises do not have requisite information about their employees. In the absence of adequate information and database, this system cannot be properly implemented.

Summary:

In this 6th chapter we described about the future scope, objectives, benefits and also limitations of our project, which helps the user know each and every little pros and cons related to the software.

CHAPTER 7

Result Analysis

Based on the scope of the problems identified, analyzed, its impact and problem solving related to the information system of human resource and payroll is done manually. The proposed system of the human resource and payroll management is expected to be able to meet several needs as follows: -

Record employee data in real time and easy to an access with the Internet network. Facilitate electronic forms of supporting data on payroll process such as leave forms, late or sick permission, loans, compliment, overtime, and evaluation with notification connected via e-mail. Provide a smart reminder when an employee will expire. Integrated with attendance machines, so attendance data can be processed directly in the human resources payroll management system. Send pay-slip to employee e-mails every period.

The design process displays functional decomposition diagram, data dictionaries, process specification, and modeling database on information system for managing human resources and payroll. The phase helps management in making decisions in implementing system for managing human resources and payroll, what technology is useful and can be applied to the management system of human resources and payroll.

Conclusion and Summary

The process of Human resource planning is vital in accessing both the current and future personnel need of an organization in terms of quantity as well as quality. It is a fundamental process that directly links human resource activities to the organizational plans and objectives. Furthermore, this process cushions organizations from different challenges by preparing it for different factors, external and internal that may affect its activities. It should thus be taken serious considering that it determines the successful implementation and achievement of an organization's objectives and goals. This project serves as a conclusion for this thesis. It summarizes the major findings from the analysis in chapters and also highlights the main points and discusses then with regard to the conceptual frame work and research hypothesis. "Payroll Management system

“software developed for a company has been designed to achieve maximum efficiency and reduce the time taken to handle the payroll activity .it is designed to replace an existing manual record system there by reducing time taken for calculations and for storing data. the system uses asp.net as front and Microsoft SQL as a backend for the database.

The system is strong enough to withstand regressive daily operations under conditions where the database is maintained and cleared over a certain time of Span. the implementation of the system in the organization will considerably reduce data entry, time and also provide readily calculated report. This system is meant to supply the power to line up all the task of employee payment. at first, the user has got to undergo login system to urge access, then the user can add, list, update and take away the employee’s record. This system makes easier to the user for managing payroll system as it is non time consuming. this project is not difficult to operate and understood by the users.

After carried out all stages of this study, several conclusions can be conveyed by the researcher are: 1) providing a system of supervision and convenience for employees and company management in managing employee data quickly; 2) provide control of frauds that can occur in the management of payroll supporting data; 3) reduce the risk of input errors or non-current data; 4) The payroll process can be done on time because all payroll supporting data has been integrated; 5) Cloud based infrastructure services have lower TCO when compared to On-premise. Several suggestions can be conveyed are: 1) Research carried out is still at six initial phases of system development, it is expected that further research reaches the implementation and maintenance phase; 2) Companies can integrate e-learning systems that help employees get knowledge easily; and 3) The management system of human resources and payroll is expected to be developed into a mobile application, so there is no need to open it through a browser.

With the theoretical inclination of our syllabus, it becomes very essential to take the utmost advantage of any opportunity of gaining practical experience that comes along. The construction of this Minor Project “Payroll Management System” was one of these opportunities. It gave us the requisite practical knowledge to supplement the already taught theoretical concepts thus making us more competent as a computer

engineer. The project from a personal point of view also helped us in understanding the following aspects of project development:

- The planning that goes into implementing a project.
- The importance of proper planning and an organized methodology.
- The key element of team spirit and co-ordination in a successful project

The project also provided us the opportunity of interacting with our teachers and to gain from their vast experience. In this last chapter i.e. 7th chapter, we talked about the result analysis that made the system understand easier and user can refer that analysis whenever he/she wants to. Also we added around 50 references from where we gathered information and made our thesis complete. We got a vast knowledge about HR and Payroll Software. How it came into existence, it's need in today's world, dedication, objectives, features, functions, future scope, limitations, problems that exist in the system, how to resolve it, we referred many links, websites, and books to do so, where we found n no. of things that may be still left for us to learn and grasp knowledge form. We are really thankful to our prof. for assigning us such a topic which is needed in the present and also may in the future market, which is on top of the talk in today's world.

References and Bibliography

1) https://www.academia.edu/37993453/Final_year_project_report_on_Responsive_online_payroll_management_system_
2) http://ignousupport.blogspot.com/p/payroll-management-system-project-report.html?m=1
3) https://www.linespay.com/blogs/hr-payroll-management-software-bangladesh/
4) https://www.academia.edu/7138614/Human_Resource_Payroll_Management_System
5) https://smallbusiness.chron.com/human-resources-payroll-systems-61166.html
6) http//www.ijetae.com/files/Volume4Issue4/IJE TAE_0414_140.
7) Schmitt, Bob (10 October 2014). & quot; Collection Management Systems". Retrieved 15 November2015.
8) Carpinone, Elana C. (May 2010), Museum Collection Management systems: One Size Does NOT Fit All, p. 26. Retrieved 5 December 2015.
9) http://www.tangedco.gov.in/linkpdf/Agri%20For m.pdf: The pdf is a form to apply for agricultural loan. This gives Us the idea about attributes required in database “Agricultural loans”.
10) Data and Computer Communications, Ninth Edition by William Stallings, (c) PearsonEducation - Prentice Hall, 20112.
11) Essentials of Systems Analysis and Design, Fifth Edition by Joseph S. Valacic hJoey F. George, Jeffrey A. Hoffer3.
12) Software Engineering Ninth Edition by Ian Sommerville.
13) International Journal for Research in Engineering Application & Management (IJREAM) ISSN: 2454-9150 Special Issue - NCSDTM – 2018
14) 2020 JETIR August 2020, Volume 7, Issue 8 www.jetir.org (ISSN-2349-5162)
15) https://www.researchgate.net/publication/332906198_Reviewing_the_Literature_among_Human_Resource_Management_HRM_Practices_Total_Quality_Management_TQM_Practices_and_Competitive_Advantages
16) Abu-Musa A (2005) Investigating the Perceived Threats of Computerized Accounting Information Sys-tems in Developing Countries: An Empirical Study on Saudi

    Organizations. Department of Accounting & MIS, KFUPM, Dhahran, Saudi Arabia.

17) Alkhatib Jamil, Anis Mohab and Noori Hamid (2008) Open Source: the next big thing in the technolo-gy transfer to developing nations, International Association for Management of Technology.
18) Computer Based Payroll System Implementation For EGovernance at Punjab Agricultural University, Poonamdeep Kaur, Dr. Dinesh Grover,CSE Deptt.,Guru Nanak Dev Engg. College,Ludhiana,International Journal of Engineering Research andDevelopmente-ISSN: 2278-067X, p-ISSN : 2278-800X,www.ijerd.comVolume 5, Issue 3 (December 2012), PP. 55-60
19) Bannon Ryan, Chin Alvin, Kassam Faryaaz and Roszko Andrew (2002) MySQL Conceptual Architec-ture Becker, Behavioral & Social Sciences Librarian 29: 301-303.
20) Buczynski James A (2009) Online Web Development Platforms Enable All Reference Staff to Work on Subject Guides, Internet Reference Services Quarterly 14: 61-66.
21) Journal of Social Sciences (COES&RJ-JSS) ISSN (E): 2305-9249 ISSN (P): 2305494
22) Abualoush, S., Obeidat, B., and Tarhini, A. (2018b). The role of employees' empowerment as an intermediary variable between knowledge management and information systems on employees' performance. VINE Journal of Information and Knowledge Management Systems, 48(2), 217-237.
23) "Xero Reviews: Overview, Pricing and Features",Financesonline.com, 2018. [Online].Available: https://reviews.financesonline.com/p/xero/ .
24) Volume-7, Issue-3 (March-17) ISSN (0) :- 2349-3585
25) https://th.jobsdb.com/en-th/articles/human-resource-management-nature-scope-objectives-function-1/
26) https://www.payrolldepartment.biz/handling-the-limitations-of-payroll-software
27) https://www.inettutor.com/source-code/payroll-system-chapter-2-review-of-related-literature/
28) https://smallbusiness.chron.com/human-resources-payroll-systems-61166.html
29) https://smallbusiness.chron.com/human-resources-payroll-systems-61166.html
30) https://creately.com/diagram/example/i3yhkoyl/hr-payroll-process-flow-chart

31) "How to motivate everyone on the payroll - Smart Payroll", Smart Payroll, 2018. [Online]Available: **https://www.smartpayroll.co.nz/motivate-everyone-payroll/.**

32) "Payroll Processing Features and Objectives of PR System", Legler.com, 2018. [Online].Available: **http://www.legler.com/probj.html.**

33) "Features of a Payroll System", Smallbusiness.chron.com,2018. [Online]. Available:**https://smallbusiness.chron.com/features-payroll-system-60900.html.**

34) 2018. [Online]. Available:**https://www.coursehero.com/file/p6flr8p/11-Conclusion-Payroll-Management-System-software-developed-for-a-company-has/.**

35) P. Prakash, "The 52 Best Payroll Services for Small Business Owners", Fundera Ledger, 2018.[Online].
Available: **https://www.fundera.com/blog/payroll-services-for-small-business.**

36) "Explaining the Different Types of Feasibility Studies", Brighthub Project Management, 2018.[Online].
Available:**https://www.brighthubpm.com/project-planning/56372-types-of-feasibility-studies/.**

37) SRS for Aakash Tech Support 1.0.1 documentation", Aakashtechsupportdocs.readthedocs.io, 2018. [Online]. Available:**https://aakashtechsupportdocs.readthedocs.io/en/latest/nonfunc.html.**

38) A. Hillsberg, "List of Payroll Software Companies in 2018 - Financesonline.com",
Financesonline.com, 2018. [Online]. Available:https://financesonline.com/list-of-payroll-software-companies/ .

39) "Gusto Reviews: Overview, Pricing and Features", Financesonline.com, 2018. [Online].Available: https://reviews.financesonline.com/p/gusto/ .

40) "OnPay Reviews: Overview, Pricing and Features", Financesonline.com, 2018. [Online].Available: https://reviews.financesonline.com/p/onpay/ .

41) "ADP Workforce Now Reviews: Overview, Pricing and Features",
Financesonline.com, 2018. [Online].

Available: https://reviews.financesonline.com/p/adp-workforce-now/ .

42) https://www.academia.edu/37993453/Final_year_project_report_on_Responsive_online_payroll_management_system_

43) https://th.jobsdb.com/en-th/articles/human-resource-management-nature-scope-objectives-function-1/

44) Payroll Management System as SaaS, Dhanamma Jagli, Ramesh Solanki, Parth Chandarana.

45) International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8, Issue-2S2, July 2019

46) http://ignousupport.blogspot.com/p/payroll-management-system-project-report.html?m=1

47) https://www.payrolldepartment.biz/handling-the-limitations-of-payroll-software

48) International Journal for Research in Engineering Application & Management (IJREAM) ISSN: 2454-9150 Special Issue - NCSDTM – 2018

49) https://bookauthority.org/books/best-human-resources-books

50) https://www.linespay.com/blogs/hr-payroll-management-software-bangladesh/

51) https://www.china-briefing.com/news/leveraging-technology-to-improve-hr-and-payroll-management/

52) https://www.softwareadvice.com/hr/payroll-software-comparison/

53) https://creately.com/diagram/example/i3yhkoyl/hr-payroll-process-flow-chart

54) https://www.corporatevision-news.com/how-to-create-a-payroll-management-system-for-your-small-business/