



Report On Internship

Project HR Management System

CSE-499

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ENKAIZEN
Website Development and Data Analysis Company
Bangladesh

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All praise to Almighty Allah and my deepest gratitude to Almighty Allah for giving me strength, direction, patience to complete my CSE courses and finally I'm at the end of my journey. By the grace and courage of Almighty Allah I could finish my internship and able to complete my report.

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My heartiest thanks to my friends and family for their unconditional support, inspiration and love to make my task complete.

Abstract

This report contains my internship journey of three months along with my internship project which highlights what I learned so far, my tasks and responsibilities at Enkaizen. As a software engineer intern I could know about the role of software developer on web applications, new frameworks, new terms, new technologies, how to work in industry life, how to manage team work and work load. As an intern it was a great opportunity for me to gain professional working life with project which increased my practical knowledge depth. Through this report I will reflect my experience, challenges, project details, internship details along with company details and achievements which I gather in Enkaizen as an intern.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Enkaizen is a technology based consulting and web development company which helps a business by removing the gap between the strategy of business and technology. This company helps clients rapidly to implement technical solutions which gives optimal results with efficient use of technology. This total work is done through technical researcher and expertise in business. Helps in startups, creating midsize companies, establishing enterprises through web development and gives software solutions.

My project was web development based and software development project which can be used in office management system. Enkaizen choose this project for various purpose. Through this project I could be able to know how to work in industry life with new tools and technologies. Many functions and tasks were done by me to complete the project. I had to use different languages with new frameworks like Laravel, Bootstrap, JavaScript and so on.

I have joined Enkaizen which is a popular private software company in Bangladesh for IT services as a software engineer intern. I was suggested to learn their work process and how to maintain their standards so that I can understand how they work together and how they manage the framework to complete their project. After that, I found the opportunity to work with their web application development team. In the time of my internship, I have gained practical knowledge on web development, new frameworks, and also gained how to maintain a web application, different programming languages, learn about security and office etiquette, and mostly how a software firm works for the satisfaction of clients. Also, I have learned the most popular JavaScript library, React JS, and Node JS using the coding technique and design skills I have learned in my courses at my university. Apart from that I had to learn some new technologies and frameworks to complete my project task. After that I have successfully finished my task in due time and which gives the HR Management System project a more effective look and makes it more user friendly.

Through this report, I have described all my working processes and the achievement area which I received from Enkaizen during Internship.

1.2 Motivation

The motivation of our project is to cope with digital era. We are living in an age of technology. So it's important to be used with tech life. As the world is running so fast, we need to be digital to run with the updated world. Less Difficulty than manual process: Manual process requires much effort. Manual process requires pen, paper, file and lots of documents. But this process saves any company from all those difficulties. Accessible from Anywhere: Any office can run their management system from any places. User can use this system on phone, desktop, laptop, tab and so on. Easily usable: This is so much easy to use and saves time. There is no trouble and error in this system. It's a user friendly process to create a friendly relationship between employee and admin. Less Maintenance Cost: It saves maintenance cost as well. The office need not to keep any staff to control their management system.

1.3 Internship Objectives

Objective of HR Management System is to ensure a stable and comfortable work environment with data at one place and efficient operations. We have divided our objectives into following pieces:

- Adaptation with Industry: It's very important to adapt with industry life. Most of the company runs with smart apps and system. Any office can manage their employee management system through this system.
- Be familiar with technology: By doing this project I could be able to gather knowledge about lots of technology.
- Learn about software development project: This is a software development project. While making this project I have to learn many frameworks, tools and so on which were software based.
- Workforce empowerment: Empowerment is formed on the idea that provides employees with resources, opportunities, responsibilities and motivate to do their work. It's totally creates a friendly environment for the employee and admin can access very easily.

1.4 Introduction to the Company

Enkaizen is a technology based consulting and web development company which helps a business by removing the gap between the strategy of business and technology. This company helps clients rapidly to implement technical solutions which gives optimal results with efficient use of technology. This total work is done through technical researcher and expertise in business. Helps in startups, creating midsize companies, establishing enterprises through web development and gives software solutions.

People will choose Enkaizen for many purposes. They give value for money as they provide high standard service and takes reasonable payments for their work. They are quite professionalism. They are enough experienced to fulfill clients demand. It is a company which provides each and every details and day to day update to its client. So, this shows their transparency characteristics. They solve many difficult problems and gives solutions to e-commerce sites. They are the place of trust and confidence for their clients. There is a long term relationship between clients and Enkaizen which creates a strong bond. They also give advice to its clients. Besides, delivering needful software they try to educate and gives proper summary to its clients.

1.5 Report Layout

I have organized my report into 5 chapter. In chapter 1 I have described introduction part, motivation, internship objectives, introduction to the company. Chapter 2 was completely about the organization where I did my internship. In organization part I tried cover about introduction, product and market situation, target group, SWOT analysis, organizational structure. In chapter 3 I described about Tasks, Projects and Activities where my focus was on daily task and activities, events and activities, project task and activities, challenges. Chapter 4 is about competencies and smart plan which have three parts, 1st one is competencies earned, 2nd one is smart plan and 3rd one is reflections. In chapter 5, I have described about conclusion part. Here I also described about Scope for further career.

CHAPTER 2 ORGANIZATION

2.1 Introduction

Enkaizen is a technology based consulting and web development company which helps a business by removing the gap between the strategy of business and technology. This company helps clients rapidly to implement technical solutions which gives optimal results with efficient use of technology. This total work is done through technical researcher and expertise in business.

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2.2 Product and Market Situation

Enkaizen has a variety in the type of products. They have products for startup, e-commerce solutions, some apps, websites, software migrations and so on. Giving a short description on their products:

- **Mobile apps:** Mobile applications are referred as mobile apps. Enkaizen provides the basic types of mobile apps like native apps, web apps and hybrid apps.
- **Multilingual website:** This is the website which doesn't deal only English speakers. People from multi languages can use this very easily. So Enkaizen provides works and products even for them who doesn't know English.
- **E-commerce solutions:** This is at a time both the product and services to help a company in business purposes. They give the company tools and solutions both. The company need not to be skilled and professional for doing business. Enkaizen is enough to fill its all demand.
- **API Integrations:** API is an interaction between data, applications and devices. API is also referred as programming interface. It helps applications for backend work. So important service is done by Enkaizen.
- **Word press websites:** It's a web development platform for professionals which provides physical and organizational structure. It can make plugin and modules.
- **Legacy software migration:** This is a system which helps old applications getting newer. This is for both hardware and software.

MARKET SITUATION

8+

Years
in Operation

20+

Global
Customers

4

Countries
Clients Served

30+

Completed
Projects

15k+

Coding
Hours

2.3 Target Group

From startup to enterprise they work for all. They are ready to work and give services to starting level to ending level. They have 5 major project from different country and 1 local. Local team looking after several local projects within single team. As they are dealing with abroad project in full swing, now they are looking for the local projects. Their service is for all types of business. They not only provide tools but also provides solutions and advices to its clients.

2.4 SWOT Analysis

- **Strengths:** The main strength of enkaizen is that they have old employee who are experienced and trained from very beginning. They are still continuing. Their team collaboration and understanding level is very good which is very important. They create a friendly environment for new comers as well.
- **Weakness:** It's difficult to get an experienced developer with proper training. At first the company needs to train the fresher's or developers. If the company gets any big project all on a sudden for solving it in a short time they fail to manage their schedule as they already remain fixed with their work. So failed to manage extra time or team for doing new and sudden task.
- **Opportunities:** Digitalization of Bangladesh is a great opportunity for Enkaizen. Day by day their team is getting bigger and they can be great part of this digitalization. From their starting their main focus was to work with updated methods and technologies. This helps them to be updated with changing time.
- **Threats:** Bangladesh is towards digitalization but they are not digitalized completely. So there are so many misconception and misunderstanding between clients and country people. They do not have much knowledge about this field which is a great threat for Enkaizen.

2.5 Organizational Structure

Enkaizen follows Team Based Organizational Structures. In every team there is a team leader and under him there is 3-4 developer along with QA and them himself. On Top CEO is there along

with CTO. Besides county based team, they have small business development team along with office operation and maintenance. Team based organizations have increasing productivity, transparency and performance. This type of structure helps to promote a growth for setting mind. This give value to experience and work ability rather than seniority. Changes traditional system and moves towards updating. they are concern about even the structure is running accordingly by observing regularly and providing better employee services and future growth.

CHAPTER 3

TASKS, PROJECTS and ACTIVITIES

3.1 Daily Task and Activities

I started my journey as an intern with Enkaizen started from 5th July 2021. For the safety insurance in Corona pandemic situation, my office allows me to work with them from home. I was supposed to complete every tasks and activities through online. My daily task and activities are given below:

Office Timing: Our office arranged scheduled for us. Scheduled office time is from 10.00am to 6.00pm from Sunday to Thursday. Friday and Sunday considered as holiday.

Meeting timing: Me and my co-worker Kripa have to join with our CEO of Enkaizen and our internship supervisor Ronald Roni Saha in office meeting at exact 10.00 am using online based app Skype. We use video and audio call for meeting purpose. Here we discuss about our day tasks and previous days' tasks submission.

Tasks Detail: Most of the day I were supposed to learn things based on our main project. Our CEO provides me some videos and links and talks about topics related to HR management system. I had to complete many mini projects like portfolio, to-do list applications, admin- user login and so on as weekly tasks.

Tasks Submission Process: Our daily meeting used ended up at 11.30 am. From that time to 1.30 pm was lunch break. 2pm to 5pm, I was spending time on learning, gathering information, applying it on projects, finding errors, noted problems, searching for solves.

Tasks submission: At 5pm we had another meeting with our CEO and in this part I had to submit my tasks and update of my activities I was done so far. Sometimes A PHP developer from Enkaizen used to join our meeting and help me to complete my incomplete tasks and solve queries so that I can learn.

3.2 Events and Activities

Task Name	Start Date	End Date	Duration(Day)
Selecting project	14-Jun	20-Jun	6
Collecting data and research	21-Jun	10-Jul	19
Planning	11-Jul	28-Jul	17
Designing	29-Jul	15-Aug	17
Front-end Working	12-Aug	22-Aug	10
Creating Database	23-Aug	9-Sep	17
Back-end Working	5-Sep	16-Sep	11
Testing	17-Sep	24-Sep	7
Review	25-Sep	28-Sep	3
Report Writing	25-Sep	9-Oct	14

Figure 3.2: Events and Activities

3.3 Project Task and Activities

3.3.1: Project Design: A good project plan and design makes any project perfect and easy to work with. Project design is a primary and important stage of the project. I joined Enkaizen as an intern, my initial work was as software developer. Enkaizen is a web based software services provider. So they wanted me to build a software by using PHP language with Laravel framework. The subject was on human resource management system. As the language wasn't in my academic lesson; it was totally a new thing to me. I needed to learn and worked day and night to accomplish this task by using laravel, bootstrap, jQuery, Mysql database by following agile methodology.

3.3.2: Methodology of the project: For our project we use Agile methodology. This is the best methodology for web based application among all of other methodology. So we decided to choose this to control our project progress.

Agile methodology's key characteristics are interaction between team members is valued over tools, working software is priority, the project team reacts to change instead of following a firm plan, customer also involved in development process. Agile methodology help developer to get the exact requirement of a client. So I think this methodology helps me to complete my project perfectly. This methodology was strongly followed by me and my colleges.

Planning: Planning is the first step to start a project. My methodology also pointed it as a first priority. So I did my planning with my ideas before starting HR management system.

Designing: To show my designing part I would like to add some of diagrams will help to understand clearly. I have added Entity Relationship Diagram(ERD), Class Diagram, Use Case Diagram, DFD diagram and a flow chart.

Entity Relationship Diagram:

I have showed 8 entity and 50 attributes with 9 relationship to complete my ERD of HR management system.

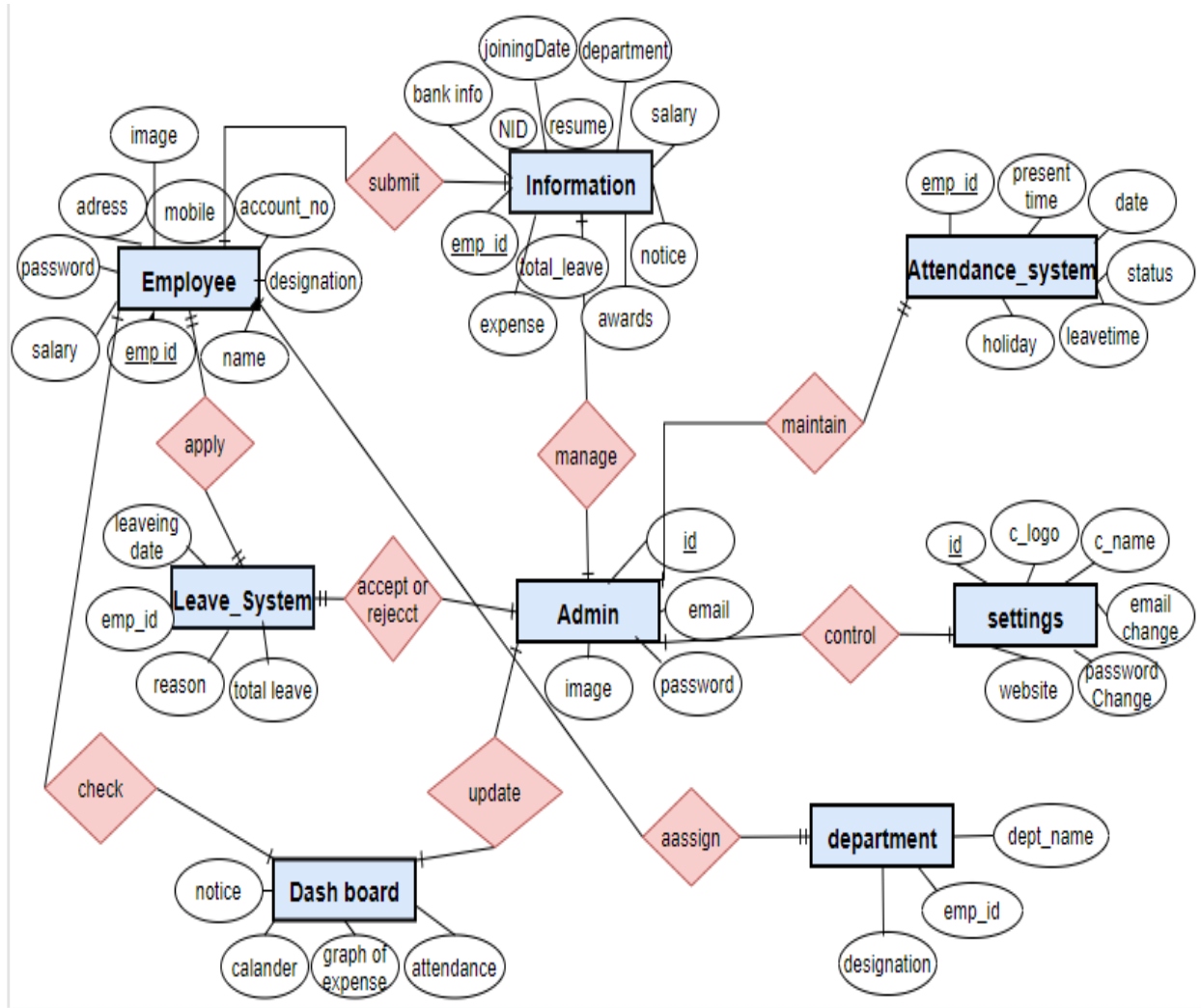


Figure 3.2.1: Entity Relationship Diagram

Class Diagram:

Classes shows an abstraction of entities with common characteristics. Associations shows the relationships between one to another classes, Dashboard, Department, Admin, Attendance, Information, settings, leave system, employees, department considered as class.

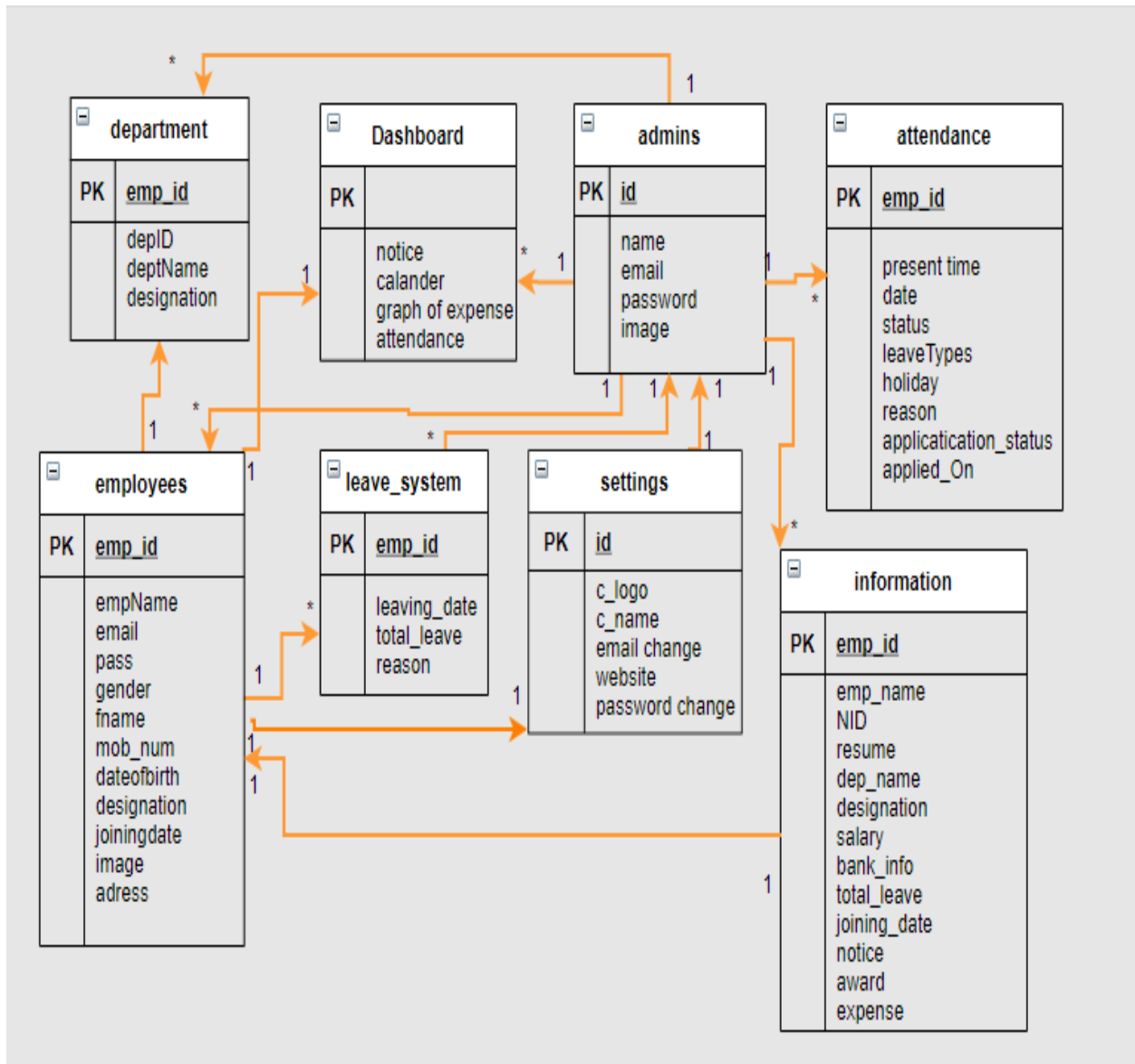


Figure 3.2.2: Class Diagram

Use Case Diagram

In Use Case Diagram there has a clear view of two user's activities.



Figure 3.2.3: Use Case Diagram

DFD Diagram

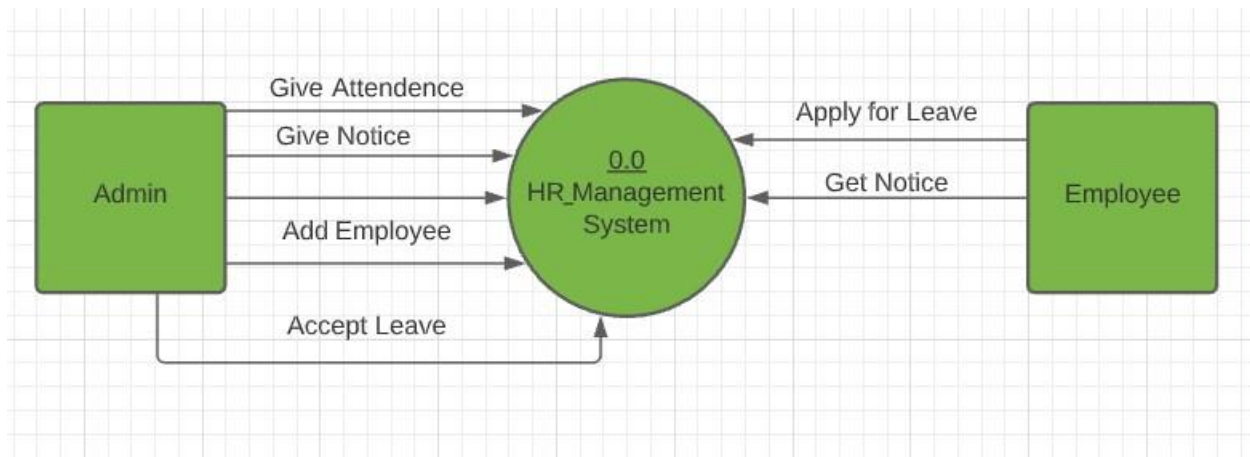


Figure 3.2.4: Context Level Data Flow Diagram

Flow chart

Human Resource Management Process

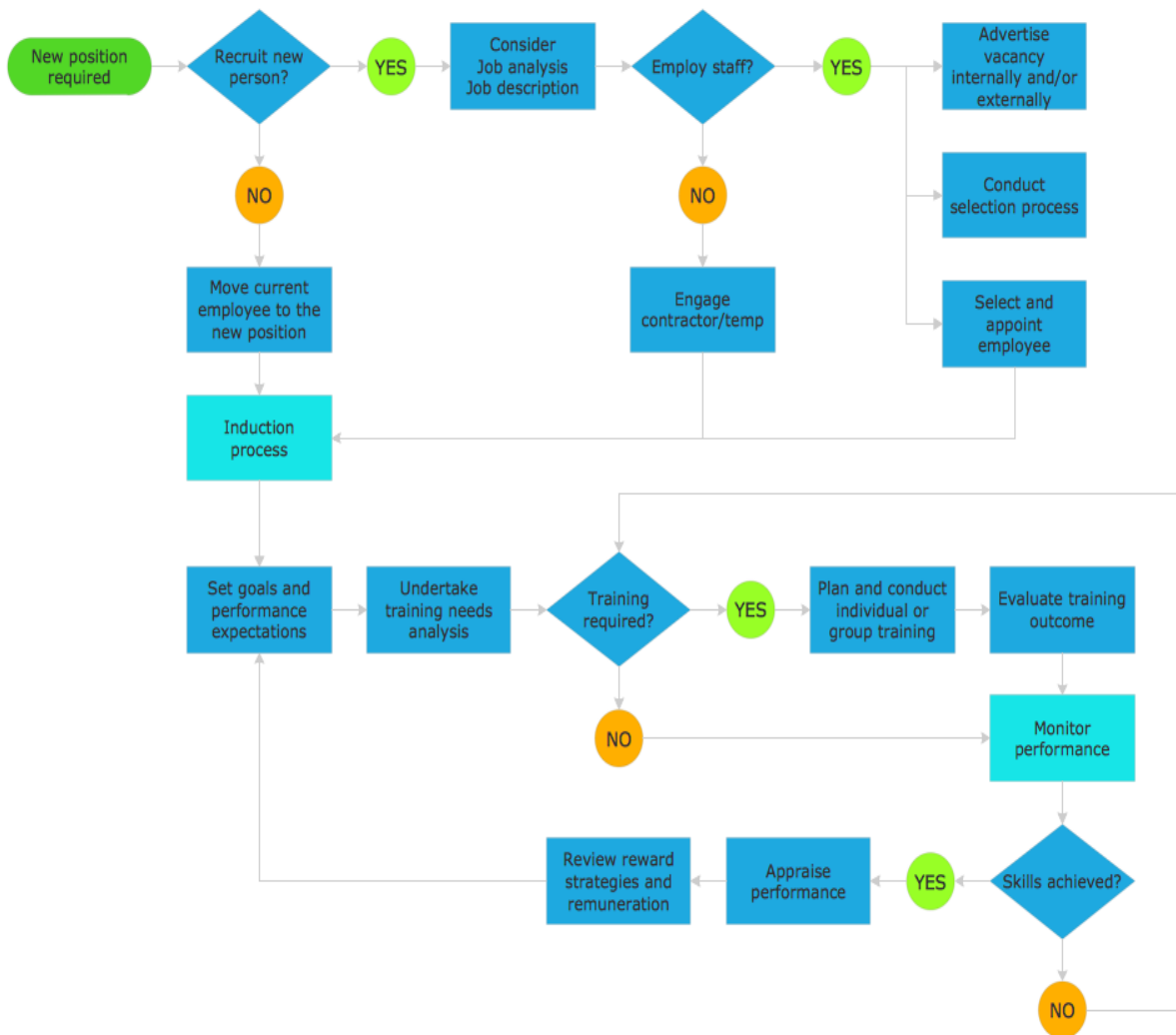


Figure 3.2.5: Flow Chart of HR Management System

Development: HR management system is a web based application. The language of this project is PHP version:7 and I choose Laravel version:7 framework for backend and to

create frontend I have used bootstrap 5, jQuery with MySQL database. To do my coding part, I have used Visual Studio Code as technical tool.

Frontend Development:

- admin login page
- employee login page
- Home page
- Dashboard
- Calendar with academic holidays
- Expense graph
- Employee add system
- Department add system
- Information Searching system
- Dashboard with a calendar
- Created Attendance system

Backend Development:

- database table and attribute
- Database connection

3.4 Challenges

- Maintaining group work: Group work is a supportive thing but sometimes we have to depends on other members for tasks and activities.
- Learning new methods: It's difficult to learn new methods and technologies within a short period.
- Gathering various experience: Various types of experience at time sometimes creates messy situation and confusion.
- Different pages for admin and employees: While working with two panel is a difficult task. Have to manage two page with different passwords and emails, different functions and so on.
- Maintaining different accessibility: In the project I maintained different access
- Adapting with different tools: Different framework and tools need skills and learning. Here I adapted myself within 3moths which was a challenge for me.

CHAPTER 4

COMPETENCES AND SMART PLAN

4.1 Competencies Earned

Through this project I could be able to know how to work in industry life with new tools and technologies. Many functions and tasks were done by me to complete the project. I had to use different languages with new frameworks like Laravel, Bootstrap, JavaScript and so on. In the time of my internship, I have gained practical knowledge on web development, new features, tasks and also gained how to maintain a web application, different programming languages, learn about security and office etiquette, and mostly how a software firm works for the satisfaction of clients. Also, I have learned the most popular JavaScript library, database Mysql using the coding technique and design skills I have learned in my courses at my university. Apart from that I had to learn some new technologies and frameworks to complete my project task. After that I have successfully finished my task in due time and which gives the HR Management System project a more effective look and makes it more user friendly.

4.2 Smart Plan

Name	Description
Specific	Clearly identify the goal
Measurable	Define the goal in measurable terms
Attainable	Choose goals that are realistic and manageable
Relevant	Make sure the goal is important and interesting
Time bonding	Define the time frame during which can be goal achievable

4.3 Reflections

This internship is a lesson of my life. From this I get to know the industrial project with professionalism for the first time. It is a great experience. Now I know the differences between academic and professional life. I learned a lot from this internship as like new language, new framework, features, strategies, adaptability, technical tools, maintenance and so on. I am blessed that I get to explore an amazing work environment and support from Enkaizen. All of my colleagues are cooperative, friendly, and understanding. I never felt left out because everyone is so inspiring and optimistic. My CEO used to talk and we discussed our ideas, vision, and our future goal. From this, I get to know the updated technical idea which helped me to focus on my work and also make my work interesting.

CHAPTER 5

CONCLUSION AND FUTURE CAREER

5.1 Discussion and Conclusion

Working with Enkaizen as a software engineer intern has helped me to understand what is my area of interest. I have gained an immense amount of technical knowledge from this work experience and I plan to continue it for my future career. I believe that my commitment as a web application developer won't solely enhance my career path however additionally I have to learn new technologies to improve my ability to create changes on my career path.

In this internship journey I could learn new methods, worked with laravel for the 1st time. I could learn many easy techniques which will help in future. By doing HR management system project I could find my lacking and could improve many skills.

Participating in weekly meeting with the CEO and other team members and discussing about our work cycle, helped me to develop a never give up attitude. It helped me in learning the software life cycle used in software industry and inspired me to be active, responsible and punctual.

As a software engineer intern, I gain enough confidence dramatically due to my internship. I am ready to work in a professional organization and eager to contribute to growth and profit with all the skills I have acquired.

5.2 Scope for Further Career

HR management system is a software development based work which is a crucial topic for any management system. Admin works majority tasks very easily. We have a plan to change and bring a few changes to this website. Besides, we have another plan to add a few functionalities in this process which are given below:

- i. Employee can give attendance.
- ii. Arrange a launch android app.
- iii. Add an online payment system.

REFERENCES

- [1] Visual Studio Code - Code Editing. Redefined, "Docs, Getting Started". Available: <https://code.visualstudio.com/>. [Accessed: 18-April-2020].
- [2] Scrum Alliance, "Scrum Role Demystified". Available: <https://www.scrumalliance.org/agile-resources/scrum-roles-demystified>. [Accessed: 18-April-2020].
- [3] Software Testing Materials, "Software Testing Definition, Types". Available: <https://www.softwaretestingmaterial.com/software-testing/>. [Accessed: 18-April-2020].
- [4] J. Duckeet, "Design and Build Websites," in *Design and Build Websites (1'st Edition)*, 2005.[Accessed: 18-April-2020].
- [5] w3.org. [Online]. Available: <https://www.w3.org/standards/webdesign/htmlcss>. [Accessed: 18-April-2020].
- [6] <https://www.enkaizen.com/>
- [7]<https://laravel.com/docs/5.1/quickstart>
- [8] <https://www.parthpatel.net/laravel-tutorial-for-beginner/>
- [9] <https://www.w3schools.com/bootstrap4/>

Appendices

Appendix A: Internship Reflection

Appendix B: Company Detail

Enkaizen Website Screenshot



SERVICES WE DO



Custom Software
Development



Web Development



Dedicated Development
Team



Product Development



E-Commerce



Mobile Apps



Testing & QA



UI/UX Design

Thank You