



## Design And Implementation of Licensing Information Systems In The Outside of Employees at PT.Sintech Berkah Abadi

Nur Azizah<sup>1</sup>, Nike Nur Anisa<sup>2</sup>, Yosa Auzadina<sup>3</sup>

Raharja University Lecturer<sup>1</sup>, Raharja University Student Graduated<sup>2</sup>,

Raharja University Student<sup>3</sup>

e-mail: [nur.azizah@raharja.info](mailto:nur.azizah@raharja.info)<sup>1</sup>, [nike@raharja.info](mailto:nike@raharja.info)<sup>2</sup>, [yosa@raharja.info](mailto:yosa@raharja.info)<sup>3</sup>

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### Abstract

*Along with the development of current technology that has been very sophisticated and rapidly happening in this world, namely in a company, agency, even the world of education as well. At PT Sintech Berkah Abadi has an obligation to give permission to employees who submit. At this time, the management of employee exit permits is still running manually and has not been centralized computerized. Therefore, it requires papers in each process and is less efficient and it is difficult to control permit approval by employees if the HRD and the Chair are outside the office. The method used to develop an information system is to apply the analytical method using SWOT analysis, as well as data collection methods, there are three stages that must be done in collecting data, namely, Observation, Interview, and determining Literature Review (Literature Study) with the journal. The design method is done using the Unified Modeling Language (UML), Notepad ++, XAMPP and the web browser used to open the web that has been designed, Google Chrome. With the licensing system in and out of employees at PT Sintech, Berkah Abadi can make it easier for employees to permit and more efficient in its use because they do not have to wait for HRD or leaders when outside the city.*

*Keywords: Licensing Information System, UML, Company*

## I. INTRODUCTION

The development of technology and information goes so fast and rapidly, such as the development of the internet (website), computers, telecommunications technology, and others. This is because the need for technology and information is very high to help various types of human work, one of which is in the corporate world or agencies. This is in line with the challenges of utilizing information technology in the increasingly evolving corporate world.

Utilization of information technology in the world of companies or agencies is not optimal. One of them is in the management of licensing and entry of employees at PT Sintech Berkah Abadi still. PT Sintech Berkah Abadi is a company engaged in the software house. The current employee entry and exit permit system is still not running well and still uses paper media and has not been computerized in a system, so companies often experience employees who are absent, especially employee exit permits.

Based on the above problems, this research aims to design and develop a web-based employee licensing data processing information system. Therefore, from the previous process which still uses a lot of paper forms and requires quite a long time, so that with this system the process of processing employee licensing data becomes computerized. It also can facilitate the process of submitting, approving, confirming, inputting, and making reports and minimizing the level of errors that exist.

## II. METODE

In writing this report, a research method is needed, the research methods used by researchers are as follows:

1. Data Collection Method  
There are three stages of data collection methods that must be done including, namely, Observation, Interview, and Literature Review.
2. Analysis Method  
The method of analysis used is the SWOT analysis method because when it will make a system design it should have evaluated the Strengths, Weaknesses, Opportunity and Threats that exist in the company for making the system in the company. So to find the problems that will be found then an analysis of the existing system is carried out so that the new system can overcome these weaknesses.
3. Design Method  
The design method used by researchers is to use Visual Paradigm for UML Enterprise Edition used to create diagram models, and design the application system using the PHP programming language and MySQL database.

## III. RESULT AND DISCUSSION

### System Analysis

This stage is the stage of research on a running system with the aim of knowing the running system procedures. System analysis is described using Unified Modeling Language (UML), including Use Case Diagrams as follows:

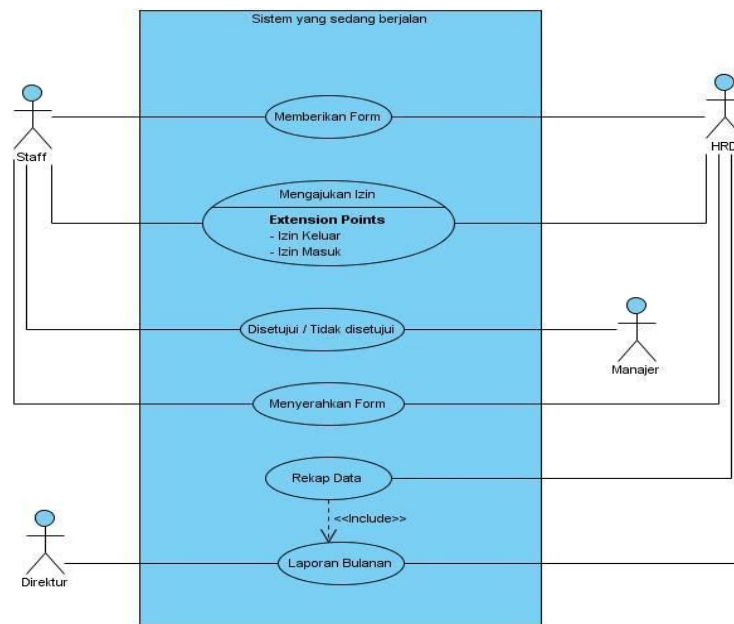


Figure 1. Use Case Diagram

Based on Figure 1 use case diagram, then explained as follows:

- 1) There are 4 Actors, consisting of Staff, HRD, Managers and Directors.
- 2) There are 6 Use Cse, consisting of providing forms, submitting permits (exit permits, entry permits), approved / disapproved, submitting forms, recap data to include into monthly reports.

### Proposed system design

The design stage is the stage in determining the processes and data needed by the proposed system with the aim of meeting user needs. The tools used are visual paradigm software to describe Use Case Diagrams and Class Diagrams

## 1. Proposal Use Case Diagram

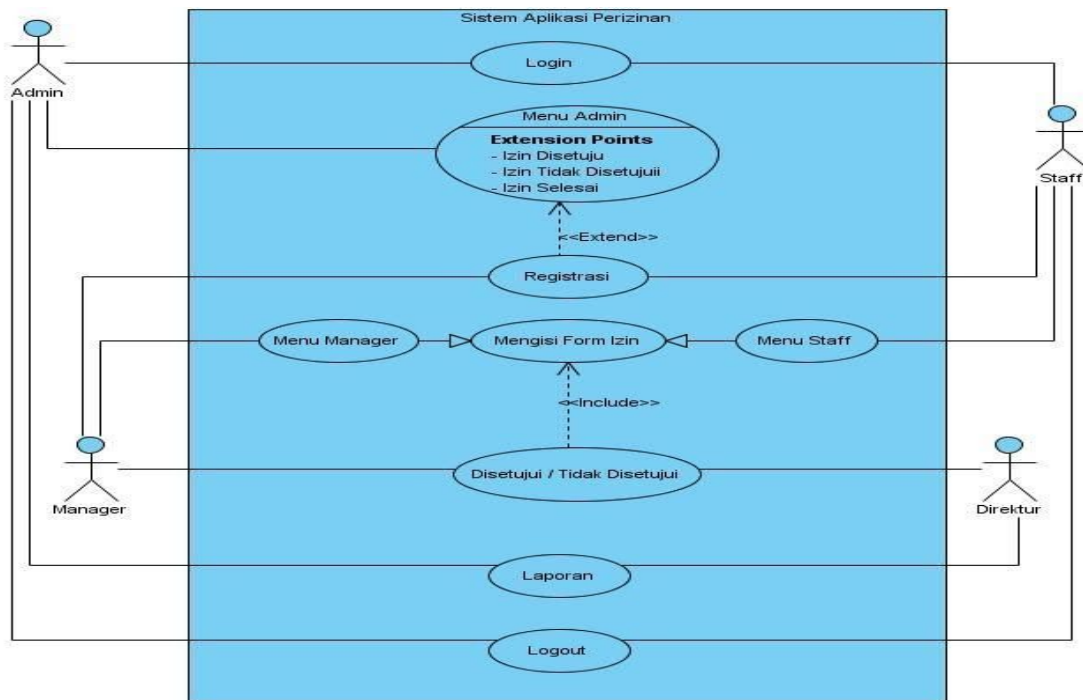


Figure 2. Use Case Diagram

Based on the picture above can be explained as follows:

Has 1 system named licensing application system, this application has 4 actors: Staff, Manager, Director, Admin, from 4 actors have their main tasks and functions which are described through 9 use cases namely; login between Admin, Staff and Manager has a login relation between the 3 actors which are interconnected with one another, the Staff login is required to register by Admin as well as the Manager. After registering the Staff and Manager contained in the Admin menu, Staff and Manager can directly enter the Staff or Manager menu using a username and password that has been registered previously by the Admin. After Staff log in and enter the Staff menu, Staff can fill out the Permission Form then proceed and enter the Manager menu and the Manager gives a value (Approved / Disapproved) after that it is processed into the Director's menu and the Director can give a value (Approved / Disapproved) after providing a value it will be returned again to the Staff or Manager who makes permissions through the permission form then the process ends and provides the value that is recapitulated into a report that can be seen by the Director and Admin, then all actors can logout.

## 2. Proposal Class Diagram

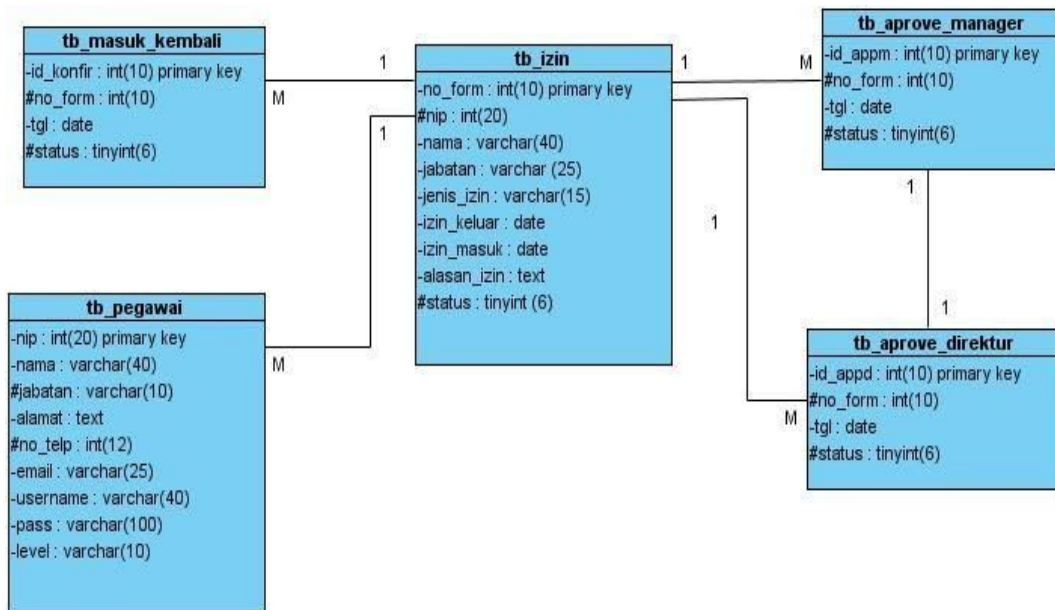


Figure 3. Calss Diagram

Class Diagram Archive Services Information System Design that illustrates the database design that will be used on the system.

## System Prototype Design

### 1. Application Login Page

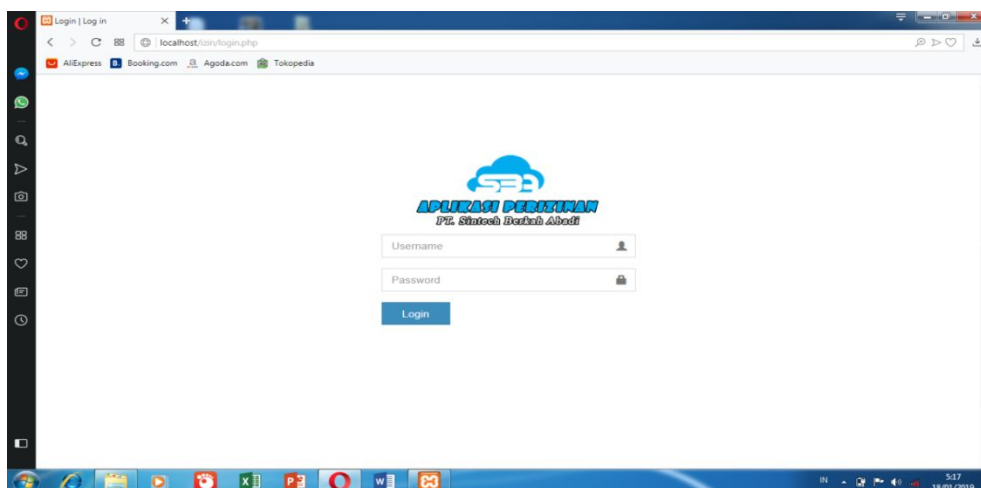


Figure 4. Application Login Page

Login page that is used to be able to enter the employee or admin menu, in accordance with what you want to access..

## 2. Employee Data Form Page

### 2.1 Employee Data Form

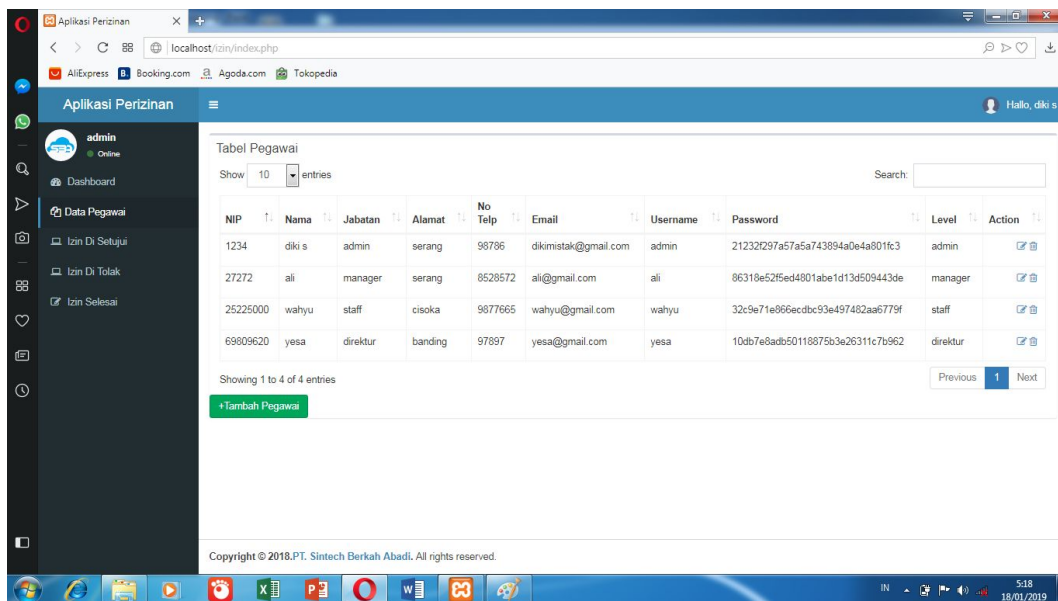


Figure 5. Employee-Admin Data Form

This page displays the employee data form on the admin page where the admin can view employee data.

### 2.2 Add Employee Data

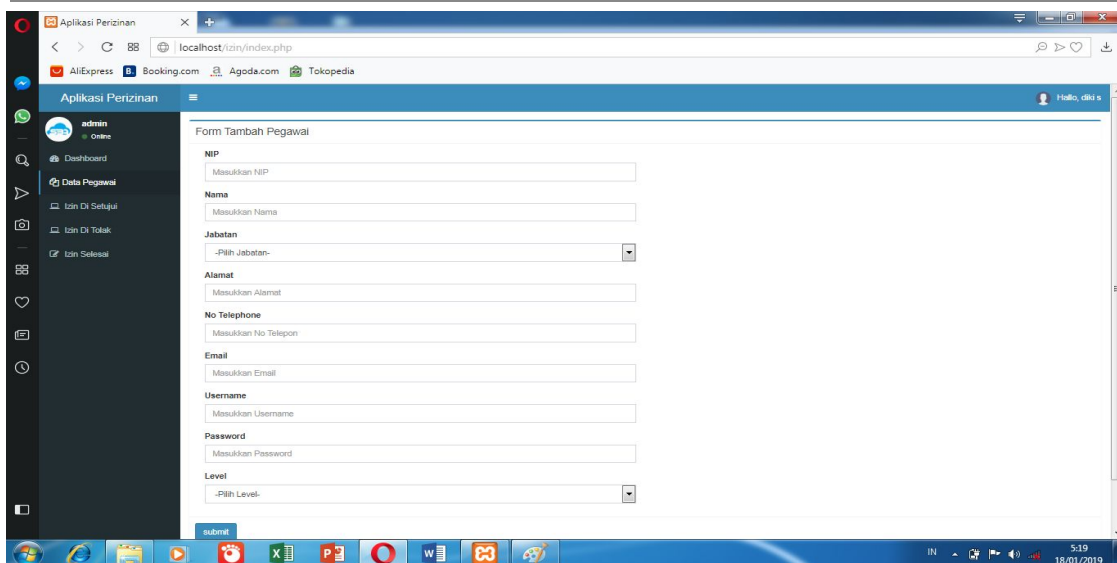


Figure 6. Add Staff-Admin Data

This page displays the employee data add menu, which only admins can do.

### 3. Approved Permission Form page

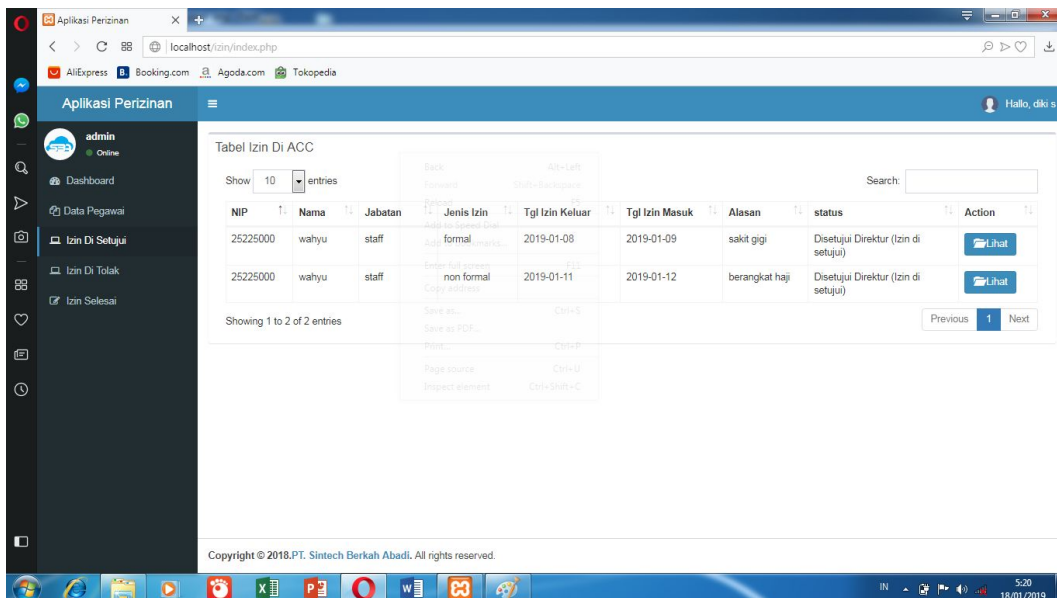


Figure 7. Admin-Approved Permission Form page

This page the admin can also see the permission that was submitted by the employee and has been approved.

### 4. Permission Form Page Declined

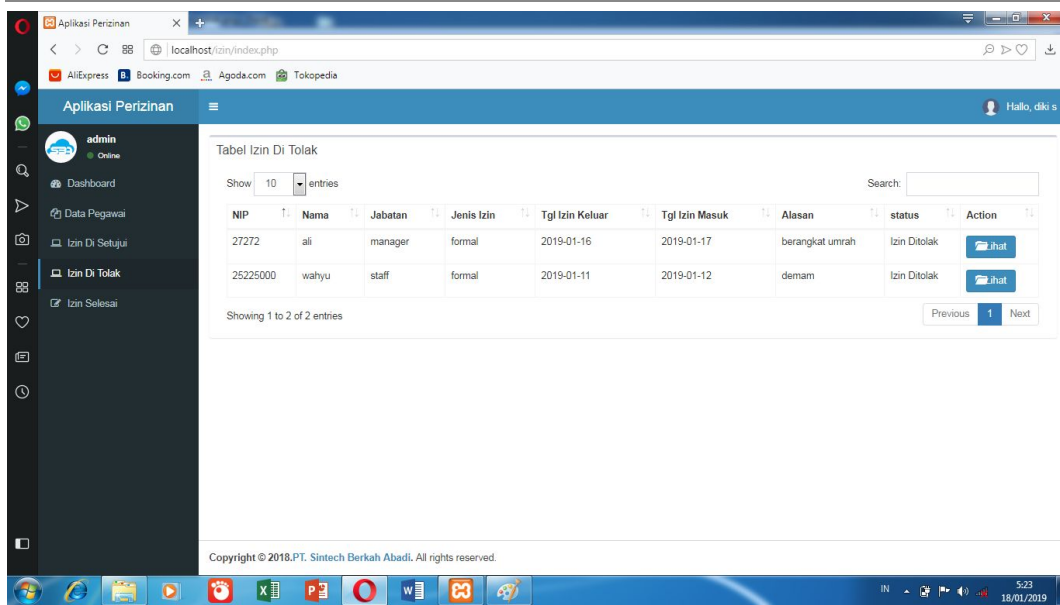


Figure 8. Admin-Denied Permission Form Page

On this page, check the status of disapproved / denied permissions.

#### 5. Permission Completed page

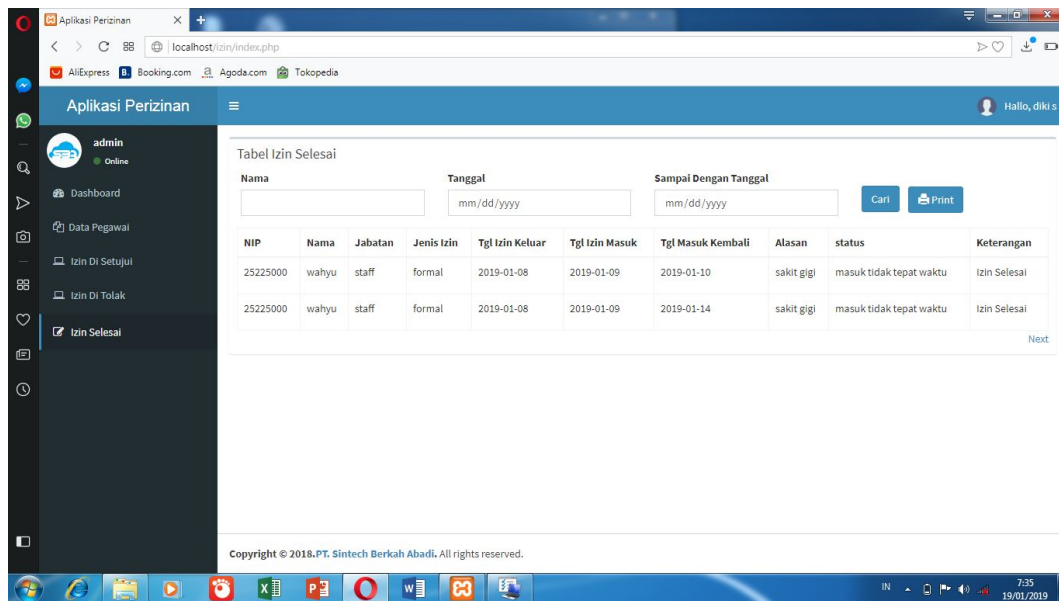


Figure 9. Admin-Complete Permission page

This page is very important for the Director to know that the permit has been completed.

#### 6. Completion Permit Report

Nip	Nama	jabatan	jenis	Tgl Keuar	Tgl Masuk	Tgl Masuk Kembali	Keterangan	Status
25225000	wahyu	staff	formal	2019-01-08	2019-01-09	2019-01-10	masuk tidak tepat waktu	Izin Selesai
25225000	wahyu	staff	formal	2019-01-08	2019-01-09	2019-01-14	masuk tidak tepat waktu	Izin Selesai

Figure 10. Admin-Complete Permission Report

#### IV. CONCLUSION

Based on the results of the previous research and discussion as well as the results of the analysis conducted regarding the research that has been done, the following are the conclusions of the study:

- Employee licensing system that is currently running is still manual, because it still uses paper media.
- Based on research conducted by the author, PT Sintech Berkah Abadi requires a web-based employee licensing data processing information system. So from the previous process that still uses a lot of paper forms and requires quite a long time, so with the system the processing of employee licensing data becomes computerized. It also can facilitate the process of submitting, approving, confirming, inputting, and making reports and minimizing the level of errors that occur.
- To build an employee licensing data processing information system that can help facilitate employees, HRD, Managers and Directors. What is needed is a number of stages starting from observation to the research site, then conducting interviews with stakeholders by giving a number of questions about the information system about employee permit data processing that runs at PT Sintech Berkah Abadi. After conducting an interview, a solution was found to design a computerized system that is an effective and efficient web-based employee licensing information system using UML (Unified Modeling Language) to describe the system design and PHP (Hypertext Preprocessor) as a programming language with a MySQL database

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