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# Application Reception Student New At School Outside Ordinary (SLB) Pembina Pekanbaru Web based

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**ABSTRACT**

*Since the COVID-19 pandemic has hit the world, it has made it difficult for prospective students to receive education directly, so that in 2021 the acceptance of new prospective students at the Pekanbaru Pembina State Extraordinary School is 24 prospective students, even schools that usually register new students offline or directly have now changed to online registration. The registration system at the Pekanbaru Pembina State Extraordinary School already uses an online system, namely in the form of a google form in registration and does not include uploading supporting documents. To overcome these problems, a web-based registration system is proposed. The design of this system uses the PHP and MySQL programming languages as databases, and uses the prototype method as a method of making a prospective student registration system. Modeling and system design in general use UML. With the development of a web-based registration system for prospective students, it makes it easy for parents who want to register their children to school, there is no need to come back to school in filling out registration forms or uploading the required documents. and make it easier for school principals to monitor data on prospective students who have been registered at the Pekanbaru Pembina State Extraordinary School, because this system is equipped with a feature to print data reports of registered prospective students.*



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## 1. INTRODUCTION

Human life that started from simplicity is now a life that can be categorized as very modern. In today's era, everything can be solved practically. This is the impact that arises from the presence of technology. Technology is something that is useful to facilitate all aspects of human life. One such technology is *the website* . Today's website needs are widely used for the general public, and business or company needs and even education. Discussing education, we know that since the Covid-19 pandemic attacked the world it has made it difficult for prospective students to receive education in person, so that in 2021 the acceptance of prospective new students is 24 prospective students, even schools that usually register new prospective students offline or directly have now changed to online registration.

As is the case in the world of education, the activity of accepting new prospective students is an activity that is routinely carried out by schools in each new school year. This was carried out by all schools including SLB Pembina Pekanbaru. SLB Pembina Pekanbaru is the only public special school in Pekanbaru. During this pandemic, parents had difficulty registering their children at this school, so the school created a Google form that can be accessed online to make it easier for parents to register their children. Google form is

a feature from Google for submitting registration forms, while the benefits of this Google form are for real-time online distribution and tabulation, real-time collaboration of 50 people can work in one file at a time and every change is saved automatically and securely save important files or college assignments without fear of being lost or damaged by a virus (Handayani et al., 2018).

The registration system for prospective new students at SLB Pembina Pekanbaru already uses an online system, namely by using the Google form to register only and does not include uploading the required files and the filing process is still done manually so parents of prospective students must deliver the files to school. For this reason, it is necessary to create a web-based system so that parents of prospective students can register at their respective homes and upload the necessary files to the registration system and do not need to come to school to register or submit the files needed for registration. the process of registering new prospective students and archiving data can be easier and well-organized.

This system will make it easier for prospective students and parents of prospective students to register. Prospective students and parents of prospective students register prospective students by filling in the required data on the Google form, but they still have deficiencies in registration, because registration of prospective students can only be done by filling in the data but cannot upload the data required for registration. So parents and prospective students still come to school to submit the necessary documents to register. For this reason, an information system is needed that makes it easier for parents and prospective students who want to register prospective students. The author is trying to find a solution to this problem, so that he will create a system that can be accessed by parents and prospective students anywhere and anytime. This system also schools and New Student Admission Committees (PSB) can also be faster and easier to register and shorten the time available.

## 2. RESEARCH METHODS

The research method applied in building the New Student Admission Development Application Design is the *Prototype Model . The prototyping* model , the developer can make a prototype first before developing the actual system (Mulyani, 2016) . The following is the *prototype* model *e* :

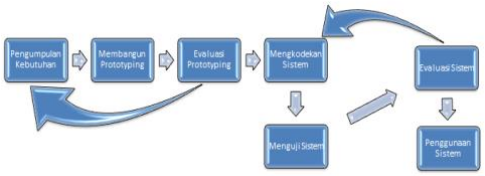



Figure 1 . Model *P prototype*
(Mulyani, 2016)

In the following steps, the researcher applies the stages of the prototype model *to the* design of the new admissions development application, the researcher starts the research process according to the stages of the prototype model *, the* following are the stages:

1. *Requirements Definition* ( Defining Needs)

   This step is an analysis of system requirements. In this stage the author conducts research, direct observations at the research site and interviews with key informants to gather as much information as possible from the Principal, Mr. Moelya Eko Suseno, S.Kom, M.Pd and the TU section regarding how to register prospective new students before . This stage produces documents needed by the user or as data related to the wishes of the user in making the system. This document will be the system analyst's reference for translating it into program language

2. *System and Software Design* (System and Software Design)

   The process carried out at this stage is to design a system ( *System Design* ) that is by translating needs analysis results into planning system or application . The design process consists of:

   a. Data design

      The design of this data is needed, because the system depends on these data. Based on the previous data collection method, the input data *is* the acceptance of new students at SLB Pembina Pekanbaru which will be entered by parents . or candidate student . While the data that will be the output ( *Output* ) is a report results graduation reception candidate student new .

b. User design
User design is one of the important stages in which this user will later use and operate the system. The users of the new student acceptance development application design consist of 3 ( three ) users, the first is the Admin who is in charge of and responsible for the system as a whole , the second user is the Head School or as a user who can access report reception candidate students and users third is a Prospective Student or as a user general can _ access registration , upload files and print card registration .

c. System Model Design
The next stage of design is modeling the design of the application for the development of new student admissions at SLB Pembina Pekanbaru. The modeling used is UML ( *Unified Modeling Language* ). UML is a language that is described in the form of structured schemas and symbols in a system or application and functions as a visual communication tool in a system or application. The following is the design model for the design of the application for the development of new student admissions at SLB Pembina Pekanbaru:

1) *Use Case Diagrams*
*A use case diagram* is a model for the behavior *of* a system or application to be built and developed. *Use case diagrams* define a relationship between one or more actors and the system or application being built or developed (Febriani et al., 2020) . The following is *a use case diagram* that has been designed for the design and development of applications for the development of new student admissions at SLB Pembina Pekanbaru:

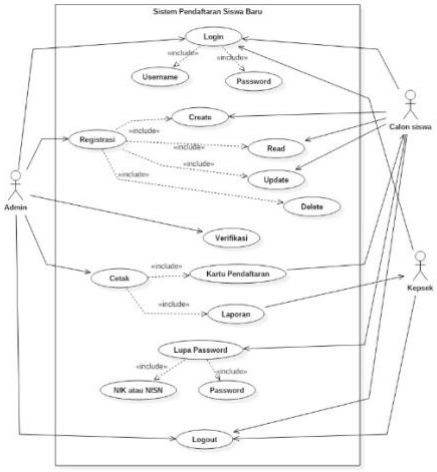



Figure 2. *Use Case Diagram*

2) *Activity Diagrams*
*Activity diagrams* is a flowchart _ explaining work _ various activity user or system , the people who perform each activity , and the flow sequential from these activities (Evi Triandini & I Gede Suardika, 2012) . Following are the results of the modeling design from *the Activity Diagram* :

a) *Activity Diagram* Registration of Prospective Students
The following below is a diagram of the activity of the admin on the design of the application for the development of new student admissions at SLB Pembina Pekanbaru, where the admin can access the system as a whole.

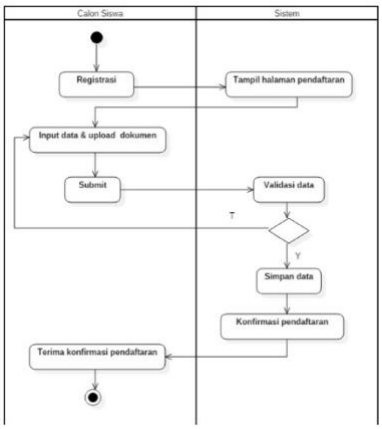



Figure 3. Student registration activity *diagram*

b) *Activity Diagrams* Print Report Head School

The following activity diagram illustrates community activities in the design of the application for the development of new student admissions at SLB Pembina Pekanbaru, where the public can access the system directly without logging into the system.

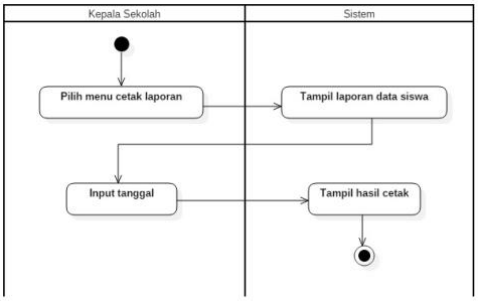



Figure 4. *Activity Diagrams* Print Report Head School

3) *Class Diagrams*

The next UML modeling is Class *Diagram* . *class diagram* is on something in the user's work environment, not on the software class that you will design later (Evi Triandini & I Gede Suardika, 2012) . The following is *a class diagram* for the design of the application for the development of new student admissions at SLB Pembina Pekanbaru, which consists of *classes user* , *class* students , as can be seen in the following figure:

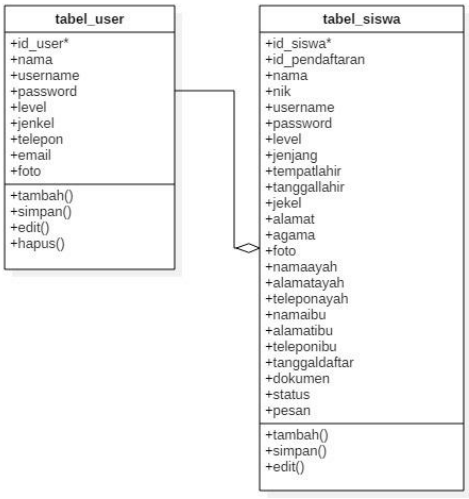



Figure 5. *Class Diagrams*

d. Database Design ( *Database* )
In designing the database for the design of the application for the development of new student admissions at SLB Pembina Pekanbaru, the researcher created a database with the name slbpekanbaru and for tables consisting of 2 ( two ) tables. These tables consist of user tables , student tables . The database and its tables are created by accessing *PHPMyAdmin* .

e. Interface Design ( *User Interface* )
The design of *the User Interface* ) tourism information system at SLB Pembina Pekanbaru is designed according to the needs and requests of users. The researcher designed a simple system interface so that users would not have difficulty accessing the information needed from the system. There are 2 types of design interfaces that are made, namely the design of input *and* output *interfaces* .

3. *Implementation and* Unit Testing

The next stage is for the *prototype model* is Evaluation (adjusting) *prototype* . Evaluation (adjusting) *the prototype* that the researchers did was the application of the results of modeling and system design into a programming language. As previously mentioned, in developing the design of the application for the development of new student admissions at SLB Pembina Pekanbaru, the programming language PHP ( *Hypertext Preprocessor* ) is used, which is the usual code *script* programming language. and most frequently used moment this . The process of creating an application design system for the development of new student admissions at SLB Pembina Pekanbaru uses *the CodeIgniter framework* , which is *a framework* that is already available in PHP. *CodeIgniter* is a PHP *framework* that is *open source* and also applies the basic MVC ( *Model View Control* ) model, and is also a modern *framework design model* that is currently being made. *A framework* is an activity framework within a *web application* in which there are compiled program parts (modules), so programmers don't need to create code from scratch, because the *framework* provides it with this MVC concept, all kinds of *layouts* and logic have been separated, so *designers* and programmers can do each task regularly.

After the implementation of the PHP programming language using *the CodeIgniter framework* , the results of the design model were successfully applied, then the system was tested for appearance/per unit on each existing module to find out errors and system malfunctions. This test is needed so that the end result of the system is in accordance with the needs and desires of the user. Testing also functions to see whether the system can respond quickly to what is requested by the user.

4. Using *prototypes*

The system is complete and ready to be handed over to users, both admins and users (parents and school principals), and don't forget to do maintenance so that the system is maintained and functions as it should.

## 3. RESULTS AND DISCUSSION

The results are a design application for the development of new student admissions at SLB Pembina Pekanbaru which has been completed and implemented, as well as parents or candidate students can access the system directly. In the following, we discuss the results of the application design for the development of new student admissions at SLB Pembina Pekanbaru based on appearance:

1. Appearance *login*
   To *login* , user using *the username* and *password* that has been registered in the system. The following shows the admin login interface:

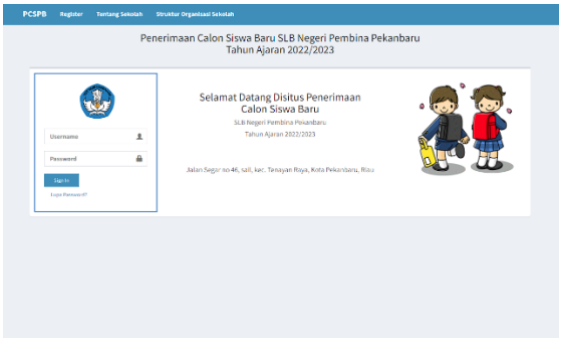



Figure 6. Display *Login*

2. Admin *Dashboard* Menu Display
   The following page is the Admin *dashboard view* of the design of the application for the development of new student admissions at SLB Pembina Pekanbaru. There are several menus that can be accessed by the admin, as shown in the picture following:


Figure 7. Display *Dashboards* Admin

3. Appearance Prospective Student Registration Page
   Initial page display for candidates students is the initial display when parents or candidate student For register candidate student . The following shows the registration page candidate student :

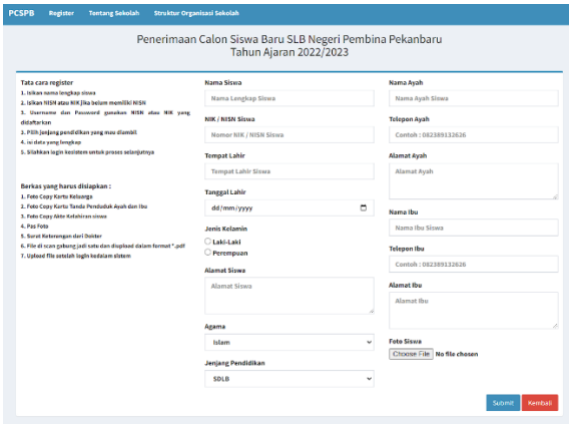



Figure 8. Display of Prospective Student Registration

4. Appearance *Uploads* File Student
   Where is this page candidate student or parents _ can upload _ file candidate students needed . _ Here's the *upload view* file the student :

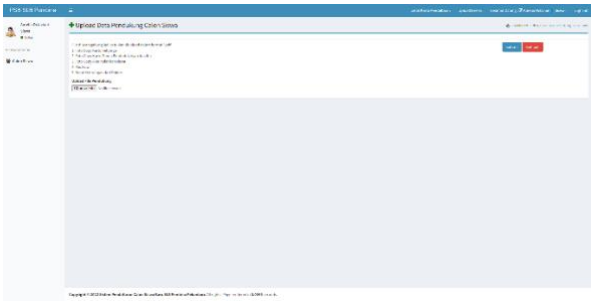
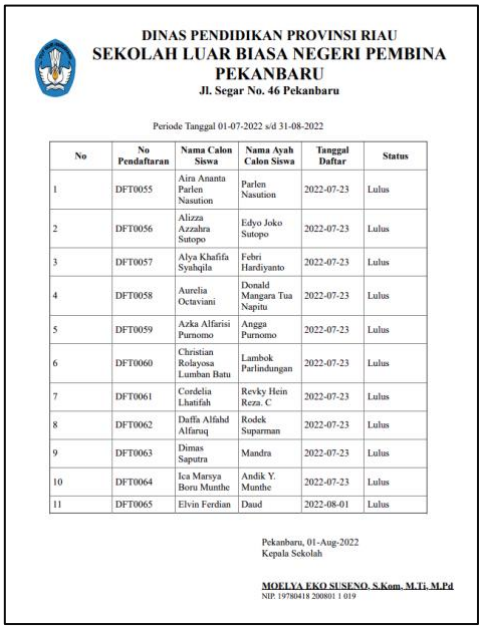


Figure 9. Display *Uploads* File Student

After parents _ or candidate student upload file , next will displays print card registration . Here's the *upload view* file the student :


Figure 10. Card Display Registration

5. Appearance Print Report .
   This display _ is appearance print report For head school . Here's a printable report :



DINAS PENDIDIKAN PROVINSI RIAU
SEKOLAH LUAR BIASA NEGERI PEMBINA PEKANBARU
Jl. Segar No. 46 Pekanbaru

Periode Tanggal 01-07-2022 s/d 31-08-2022

| No | No Pendaftaran | Nama Calon Siswa | Nama Ayah Calon Siswa | Tanggal Daftar | Status |
|---|---|---|---|---|---|
| 1 | DFT0055 | Aira Ananta Parlen Nasution | Parlen Nasution | 2022-07-23 | Lulus |
| 2 | DFT0056 | Alizza Azzahra Sutopo | Edyo Joko Sutopo | 2022-07-23 | Lulus |
| 3 | DFT0057 | Alya Khafifa Syahqila | Febri Hardiyanto | 2022-07-23 | Lulus |
| 4 | DFT0058 | Aurelia Octaviani | Donald Mangara Tua Napitu | 2022-07-23 | Lulus |
| 5 | DFT0059 | Azka Alfarisi Purnomo | Angga Purnomo | 2022-07-23 | Lulus |
| 6 | DFT0060 | Christian Rolayosa Lumban Batu | Lambok Parlindungan | 2022-07-23 | Lulus |
| 7 | DFT0061 | Cordelia Lhatifah | Revky Hein Reza. C | 2022-07-23 | Lulus |
| 8 | DFT0062 | Daffa Alfahd Alfaruq | Rodek Suparman | 2022-07-23 | Lulus |
| 9 | DFT0063 | Dimas Saputra | Mandra | 2022-07-23 | Lulus |
| 10 | DFT0064 | Ica Marsya Boru Munthe | Andik Y. Munthe | 2022-07-23 | Lulus |
| 11 | DFT0065 | Elvin Ferdian | Daud | 2022-08-01 | Lulus |

Pekanbaru, 01-Aug-2022
Kepala Sekolah

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NIP. 19780418 200801 1 019

Figure 11. Display Print Report

## 4. CONCLUSION

Based on the description of the problems and problem-solving methods that have been discussed implemented into an information system, the following conclusions are obtained:

1. With this web-based registration system for prospective new students, it can make it easier for parents who want to register their children to school, no longer need to come to school to fill out forms, bring the necessary document files.
2. With the registration system for prospective new students, it makes it easier for prospective students who live far from the Pekanbaru Pembina State SLB to register and upload the required documents.
3. This system makes it easier for school principals to monitor the data of prospective students who have registered at SLB Pembina Pekanbaru, because this system is equipped with a feature to print data reports on registered prospective students.

Design get up application development reception student new in SLB Pembina Pekanbaru is still many flaws and far away from the word perfect , therefore we provide suggestions for the development of the system This order more max and more interesting are :

*1.* It is hoped that the next researcher can complete the application module such as the student value processing system module.

*2.* It is hoped that for further research the application can be developed in the form of an Android-based mobile application.

*3.* It is hoped that this system will make it easier for prospective students who register to get information whether they are accepted or not as notifications on the accounts of each prospective student.

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