Service Website Implementation Use Laboratory For Faculty Science and Technology of Universitas PGRI Yogyakarta

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Abstract

The purpose of study is develop service website use laboratories in the Faculty Science and Technology (FST) for increase efficiency , effectiveness and quality service laboratory . This website will help to unravel Variety problems found in the FST laboratory , such as lack of source Power human (HR), limitations capacity , availability and quality services , as well as lack of information about needs , demands , and feeds come back from user laboratory.Website This will provide Features like confirmation use laboratory , inventory and reporting use laboratory online . This website will also give Variety information latest as well as accurate regarding conditions , and facilities laboratory.Development of this website expected can increase efficiency , effectiveness and quality service laboratory for its users . This website can also help manager laboratory in carry out monitoring and maintenance equipment laboratory , so that can minimize damage equipment laboratory and extend age equipment laboratory.Website This will built with use modern web technologies such as HTML, CSS, JavaScript, and PHP. This website will also using MySQL database for store user , laboratory , and equipment data laboratory.research This expected Can give benefit especially in improvement quality service laboratory at FST.

Keywords : *Faculty Science and Technology, HR, Laboratory, Website*

1. INTRODUCTION

College tall is unit organizer education that can in the form of universities, institutes, polytechnics , schools high , or academy [1] . College tall own obligation carry out educational processes , studies , and Community service . Article 42 (2) of the Minister of National Education Regulation No. 19/2005 concerning National Education Standards , reads all over unit education must have infrastructure , in the form of land , space class , room power educators and leaders , room administration , room laboratory , room library , canteen , production unit room , facilities sports and play , worship facilities , as well as room or other places needed use support the learning process regular at a time sustainable [2] . Steps that can be taken attempted For increase quality graduates , one of which is with increase means infrastructure Supporter for the learning process at college high . Learning process can not enough maximum If No supported means infrastructure adequate .

Laboratories are part of the crucial facilities for the world of education, research and development. [3] . As well as a place to conduct various kinds of experiments, tests, and practicals that support the teaching and learning process and the discovery of new knowledge.

Laboratories also need good management so that they can function optimally and safely for their users. And the laboratory usage service website can also help laboratory managers when running monitoring and maintenance of laboratory equipment. [4] .

In order to overcome diverse problem that , is needed solution in the form of Laboratory Usage Service Website Development. This website aims to simplify and accelerate the process of registration, reservation, confirmation, and reporting of laboratory usage online. This website can provide the latest and accurate information about conditions and facilities. Thus, this website can improve the efficiency, effectiveness, and quality of laboratory services for its users.

2. THEORETICAL BASIS

2.1. Literature review

Study Brianorman , et al. [5] , regarding design governance system web based space , implementing method waterfall development , including stage analysis , design , application , testing, and maintenance . This journal presents complete and detailed research results, including data flow diagrams, *use cases,* classes, activities, *sequences,* and system interface displays.

Then in research conducted by Dika Sukmana , et al. [6] , regarding modeling application borrowing web based room on level faculty , which can help facilitate the borrowing process room online . Research development the apply method *software development life cycle (SDLC)* .

Research by Khafid & Fahmi [7] , has objective as following : Research This researching various aspect management laboratory computer , such as source available power , human resources involved , and effectiveness management.In addition that , research this also researches How laboratory computer used in the learning process , types activity Study what to do there , and how matter the help student reach objective learning .

2.2. Xampp

XAMPP is package device complete and suitable web software for the learning process web programming , especially PHP and MySQL. This package own function as localhost which is in the form of an Apache HTTP Server program, MySQL database, and translator on PHP language [8] .

2.3. Mysql

MySQL is system *database management* that has relational nature . This means that the data is stored placed in the database in a number of separate tables , such as until the data manipulation process becomes fast . MySQL can utilized manage databases of any size the smallest until the biggest [9] .

2.4. PHP(Hypertext Preprocessor)

PHP is scripting language integrated with HTML tags, executed inside the server, as well as utilized make web page is dynamic , similar with ASP or JSP. PHP is device Open Source software [10] .

3. RESEARCH METHODS

3.1. collection .

Data collection is carried out with taking data at the Faculty of Science and Technology, Yogyakarta PGRI University (FST UPY).

3.2. Use Case Diagram

Design use case can be seen in Figure **1** .

3.3. Context Diagram

Design use case Can seen in Figure 2.

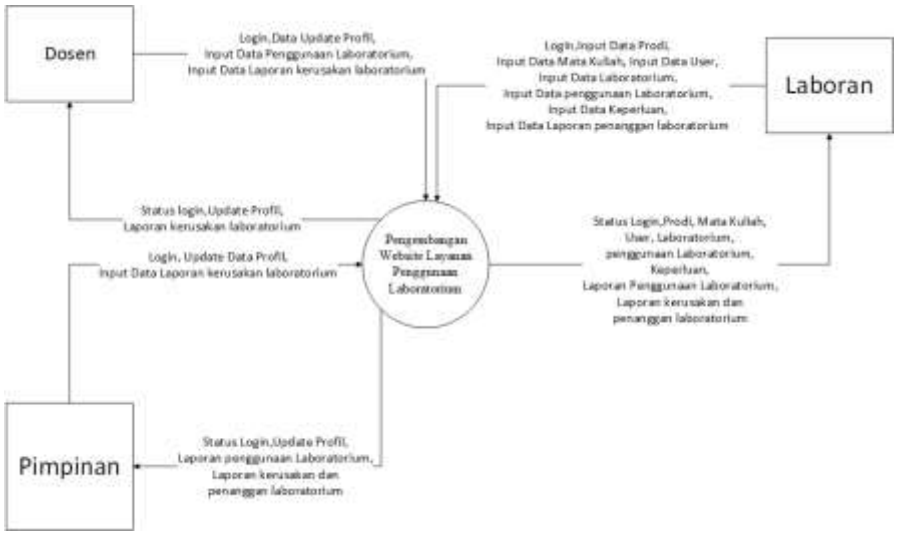

Figure 1. Usecase Diagram

3.4. Data Flow Level 0

Data Flow level zero is breakdown problem from the context diagram . It can be observed through Figure 3.

Figure 1. Context Diagram

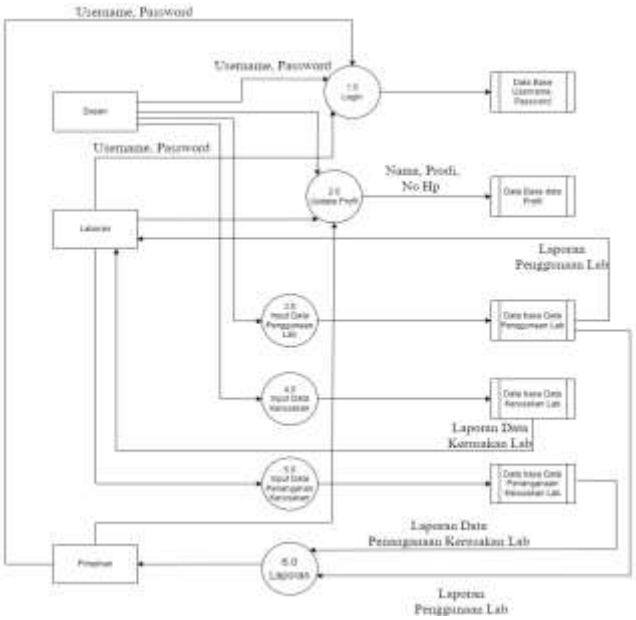

Figure 3. Data Flow Level 0

3.5. Design Database Structure

Database structure database is a database that is utilized system use keep all data and data flows that are interconnected related One each other. As for the form Database structure can observed through Figure 4.

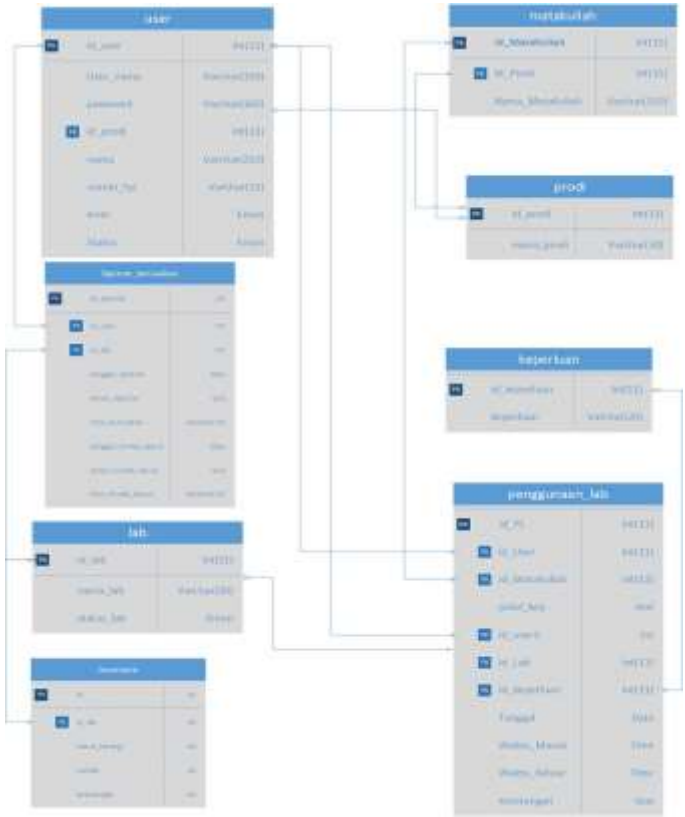

Figure 4. Perancangan Struktur Database

4. RESULTS AND DISCUSSION

4.1. Implementation

Website Design Services Use Laboratory built use Laravel framework with wet PHP, HTML, CSS, and Java Script programming . Here This is is a number of appearance from Website Service Use Laboratory :

4.1.1 Login Page

The login page is page beginning moment will accessing the Service Website Use Laboratory and its images Can observed through Figure 5.

Figure 5. Login Page

4.1.2 Home Page of the Laboratory Team

Home Page of the Laboratory Team is page beginning after login with Laboratory Team account and its images Can observed through Figure 6.

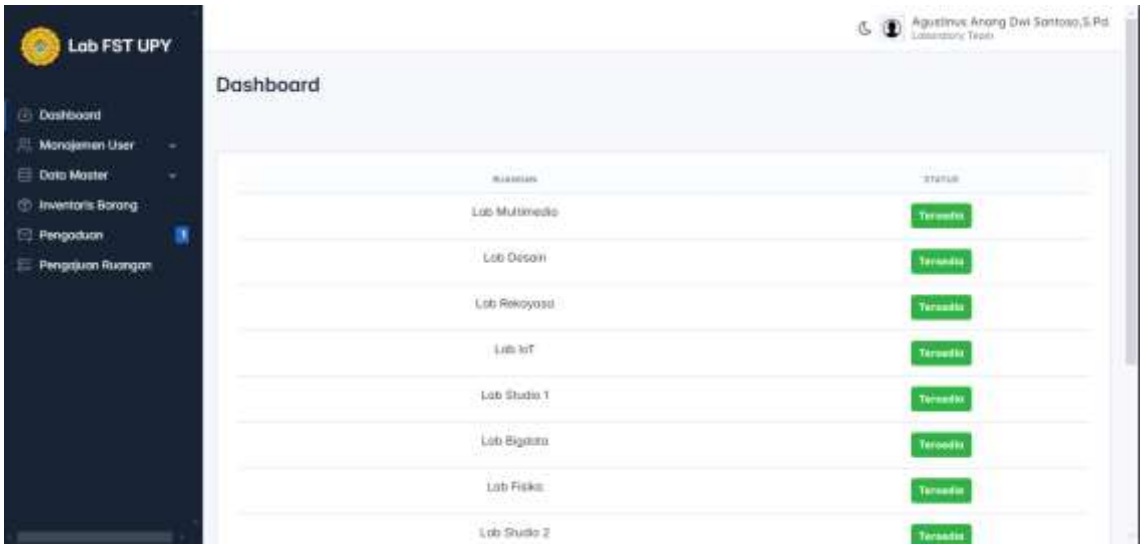

Figure 6. Laboratory Team Home Page

4.1.3 User Home Page

The User Home Page is page beginning after login using User account and its image Can observed through Figure 7.

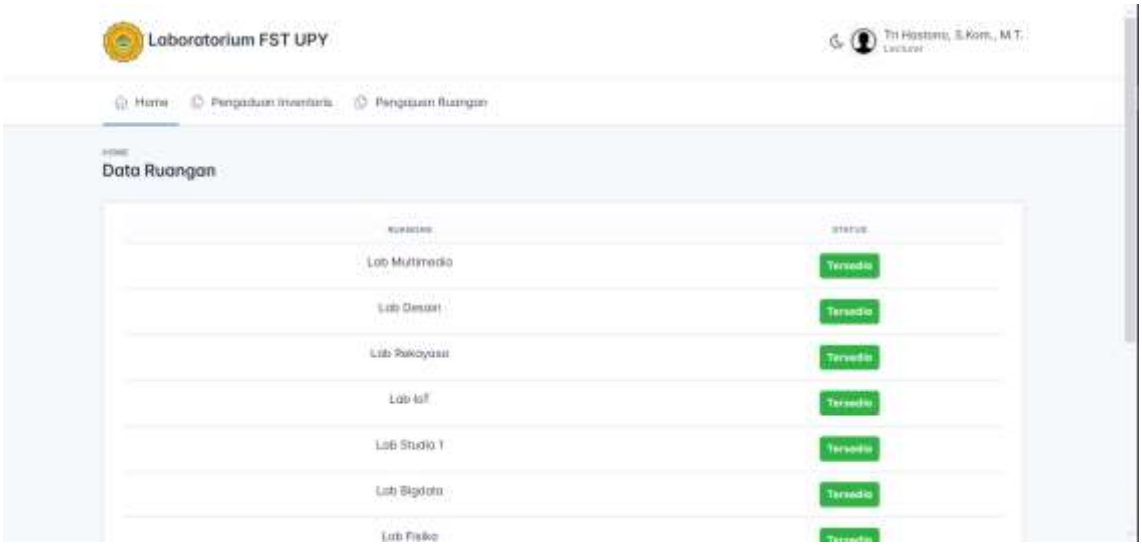

Figure 7. User Home Page

4.1.4 Complaints Page Damage Inventory

Complaints page damage inventory is page that can accessed by the user, which is used For report damage inventory found inside laboratory and images his Can observed through Figure 8.

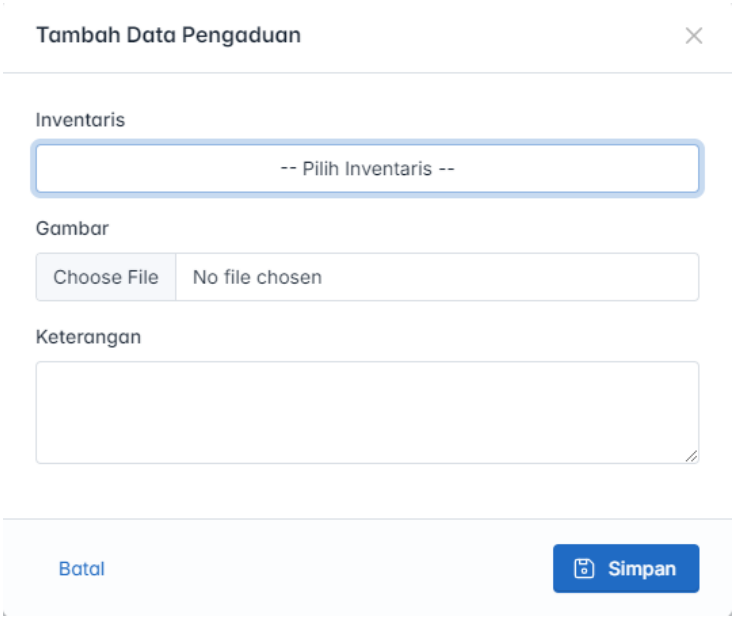

Figure 8. Inventory Damage Complaints Page

5. CONCLUSION

Based on results Website Service Implementation Use The laboratory at FST UPY, such as until got a number of conclusion , namely :

- System This make it easier all party For get up to date information and information in real time related availability laboratory in progress empty or No .
- Result of This Website Tester show that website can walk with good and appropriate hope user .

6. SUGGESTION

Based on a number of the conclusion above , formulated a number of suggestions, namely :

1. System This expected can more developed in study next and not only used in the UPY FST Laboratory only .
2. System This expected can more developed in study next and goals combination system information and IoT (Internet of Think).
3. System This need refinement function so that the process more easy and more fast again.

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