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Designing A Web-Based Credit Application Information System (Study at One of The Sharia Financial Institutions in Bandung)

Hani Supriati[1]; Haris Supriatna[2]
[1,2]STMIK Mardira Indonesia, Bandung
[1]Correspondence Email: haris@stmik-mi.ac.id

Abstract

In today's technological developments, the role of Internet media must be addressed. The ease of doing online activities certainly must be connected to the critical role of websites in it. One of the benefits of applying the Internet in the banking sector is simplifying work processes such as processing data for credit applications. The system being used to process data at one of the Sharia financial institutions in Bandung still needs to be better organized, so it is less effective and efficient, less accurate, or errors often occur, and also takes up much space for customer documents. Therefore, the author is interested in building a system expected to overcome the problems faced by one of the Sharia financial institutions in Bandung. This system was formulated as "Designing a Web-Based Credit Application Information System (Study at one of the Sharia financial institutions in Bandung)." The method the author uses is a qualitative descriptive method. The system development method that the author uses is the object-oriented method, namely OOSE. The author used PHP, MySQL, and XAMPP as tools to create this website. The results of this accounting information system application research can help simplify data processing at one of the Sharia financial institutions in Bandung that has been running so far.

Keywords: *Credit, OOSE, Website, PHP, MySQL, and XAMPP*

Introduction

A financial institution is a forum with services for managing finances for specific purposes. The role of financial institutions in life, especially banks, is vital. (Musti & Baporikar, 2023) As the largest Muslim country in the world, the need for banks that carry out their activities based on Sharia principles is essential, namely the rules of agreements based on Islamic law between banks and other parties for depositing funds and financing business activities or other activities that are declared to be following sharia. (Shuja et al., 2023) In carrying out their business, Islamic banks use a profit-sharing pattern, the primary basis for all their operations in funding, financing, and other products. (Ardalan et al., 2019; Jääskeläinen et al., 2022) Islamic bank products are similar but different from conventional ones because of the prohibition of usury, gharar, and maysir. Therefore, funding and financing products in Islamic banks must avoid these prohibited elements. (Khalequzzaman et al., 2023; Xu & Du, 2022)

The public's need for sharia banking institutions is relatively high. To meet the needs of the community, it is possible to establish sharia banks in the national banking system. (Adel & Younis, 2021) The existence of one of the Sharia financial institutions in Bandung is intended to be able to provide banking services quickly, easily, and simply to the community, mainly medium, small, and micro-entrepreneurs in both rural and urban areas whom public banking services have not reached. at one of the sharia financial institutions in Bandung, as a public trust institution whose business activities are based on sharia principles, it is hoped that it can carry out the mandate of the fund owners by channeling it into productive businesses in order to improve people's living standards. (Shin et al., 2023; Shoeb & Rahman, 2020)

In today's technological developments, the role of Internet media must be addressed. Almost all activities are made more accessible through Internet media. (De Sarkar, 2022; Sabar Rudiarto et al., 2022) The ease of activities via Internet media must be distinct from the critical role of websites. Internet applications can be made in government, health, education, industry, and even banking. (Anthony Jnr. et al., 2019) One of its

beneficial impacts in the banking sector is facilitating specific work processes, such as data processing for credit applications or requests. (Haolina et al., 2020; Ritchi et al., 2019)

One of the products offered at one of the Sharia financial institutions in Bandung is a business credit intended for individuals, small/micro businesses, and large businesses. (Asemi et al., 2021) One of the Sharia financial institutions in Bandung still needs to have a structured credit application system. Submissions are semi-computerized using Microsoft Excel, thus hampering the performance of one of the Sharia financial institutions in Bandung. This condition causes a slow exchange of information and losses due to errors in recording credit applications at one of the Sharia financial institutions in Bandung. (Chen et al., 2022; Zhang et al., 2021)

This condition can be overcome by a web-based credit application information system so that recording credit applications and calculations can be more effective and efficient so that they can be well documented. Because one of the Sharia financial institutions in Bandung still uses semi-computerization, the author is interested in taking the title in writing this final assignment, "Design of A Web-Based Credit Application Information System (Study At One Of The Sharia Financial Institutions In Bandung)."

Research Method

The research method used in writing this final assignment is descriptive research. Descriptive research is research carried out to describe one or more variables without the need to compare or vary the relationships between variables. In this regard, this research uses the following data and information collection techniques: literature study, field study, observation techniques, and interview techniques.

In carrying out this research, designing a Web-Based Credit Application Information System (Study at one of the Sharia financial institutions in Bandung) used an object-oriented system development method, namely the OOSE (Object-Oriented et al.) method. According to (Putra, 2018), OOSE (Object-Oriented et al.) is a development method for

building and validating application domain models or object-oriented systems. The Object-Oriented Software Engineering methodology emphasizes using use cases and software design.

Methods that contain elements from other Object Oriented. This method puts more emphasis on use cases. OOSE has three stages: creating requirements models and analysis, design and implementation, and model testing. The advantage of this method is that it is easy to learn because it has simple notation, covering all stages of software engineering.

Results and Discussion

After the system has been analyzed and designed in detail, it will move to the implementation stage. Implementation is the stage of placing the system to be ready to operate. The implementation aims to confirm the design modules so that users can provide input to the system builder. The recommended implementation scope includes software and hardware environments. The need for application design is the principal capital so that the design is by the previously built targets.

Software is a system support tool consisting of an operating system and database applications. The software used by the author in making this web-based application is as follows:

1. Windows 10 Operating System.
2. XAMPP Control Panel v3.2.1 as a local server.
3. MySQL as database.
4. PHP is a programming language for formulating programs.

Apart from software, authors also need hardware to run some software. The hardware specifications required to run this application are as follows:

1. PC/Laptop
2. Intel Processor (2.16 Ghz)

3. 15'' monitor
4. Mouse
5. Keyboards

Brainware is one of the essential components in implementing a system and is usually in the form of human objects as the implementing staff consisting of:

1. Applicant, namely the person with access to the credit application process.
2. Admin, the person in charge of operating the system and entering, changing, or deleting data.

PHP is open source because the PHP open source code is available for free; this allows the developer community to continually make improvements, develop, and find bugs in the PHP language. Open source means we do not need to depend on a particular company (e.g., Windows to Microsoft) to release the next version if something needs to be fixed. We also do not have to pay purchase and upgrade costs, which are usually quite expensive.

Stability and compatibility. PHP runs stably on various operating systems such as UNIX (including Linux), Windows, and Macs. PHP integrates well with various web servers, including the most popular IIS and Apache.

PHP is also equipped with various other supports, such as direct support for various popular databases, an extensible architecture, and a processor that uses minimal resources on our computer compared to its competitors and can also display web pages quickly.

It is also important to remember that PHP's advantages may change over time because each program will try to improve its performance.

System testing is a process to find out where the deficiencies in the system are and whether they are by what was described in the previous

design. Testing of this system is carried out carefully so that the results obtained can benefit users.

In the operation of application programs, changes to the application often occur or even damage. This result can happen due to an error in the operation of the program or a request from the user, and Maintenance basically must always be there, of course, adjusted to the environment where the program is used, to maintain the stability and balance of the program which can produce the information needed by the user.

Programming is an activity that supports implementing a new system because a good and structured program can produce information according to needs. Before the program is implemented, it must first be tested to be free from errors that may occur. This testing can be carried out for each program module, followed by testing all modules to ensure that all modules are integrated properly and correctly. This section describes the appearance of the application program, which is designed according to the design made at the system design stage. From the existing system design, the author divides it into several display forms. The database used is MySQL. Here are screen captures of the database implementation:

1. Table Admin

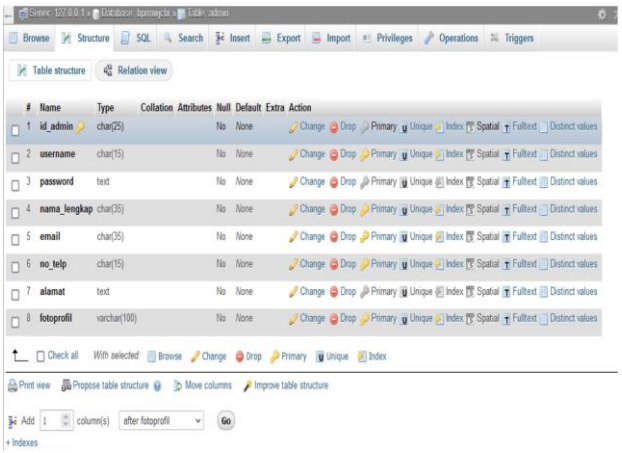


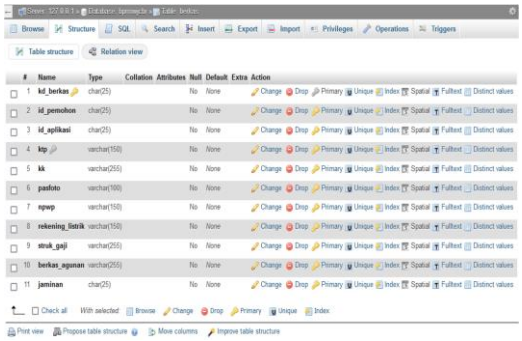
Figure 1. Admin Table

2. Application Table

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	id_aplikasi	char(50)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
2	id_provinsce	char(2)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
3	id_regencies	char(4)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
4	id_pemohon	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
5	nama_lengkap	char(35)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
6	jenis_kelamin	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
7	tgl_lahir	date			No	None		Change Drop Primary Unique Index Spatial Fulltext More
8	alamat	text			No	None		Change Drop Primary Unique Index Spatial Fulltext More
9	tempat_lahir	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
10	kode_pos	char(10)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
11	status	text			No	None		Change Drop Primary Unique Index Spatial Fulltext More
12	telp	char(15)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
13	pendidikan	char(10)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
14	tgl_beli	date			No	None		Change Drop Primary Unique Index Spatial Fulltext More
15	status_perkawinan	char(15)			Yes	NULL		Change Drop Primary Unique Index Spatial Fulltext More
16	nama_pasangan	char(35)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
17	jml_tanggungan	int(8)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
18	ibu_kandung	char(35)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
19	agama	char(15)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
20	pihak_dihubungi	char(35)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
21	hub_kel	char(15)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
22	alamat_kel	text			No	None		Change Drop Primary Unique Index Spatial Fulltext More
23	telp_kel	varchar(15)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
24	tipe_pendapatan	char(15)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
25	jenis_pekerjaan	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
26	nama_perusahaan	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
27	alamat_per	text			No	None		Change Drop Primary Unique Index Spatial Fulltext More
28	lama_bekerja	int(8)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
29	pendapatan	char(20)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
30	SIUP	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
31	NPWP_per	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
32	jumlah_kredit	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
33	jangka_waktu	int(8)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
34	tujuan_kredit	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
35	angsuran_perbulan	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More

Figure 2. Application Table

3. File Desk



#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
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2	id_pemohon	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
3	id_aplikasi	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
4	ktp	varchar(150)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
5	kk	varchar(255)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
6	pasfoto	varchar(100)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
7	npwp	varchar(150)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
8	rekening_listrik	varchar(150)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
9	struk_gaji	varchar(255)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
10	berkas_agunan	varchar(255)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
11	jaminan	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values

Figure 3. File Table

4. Guest Book Table

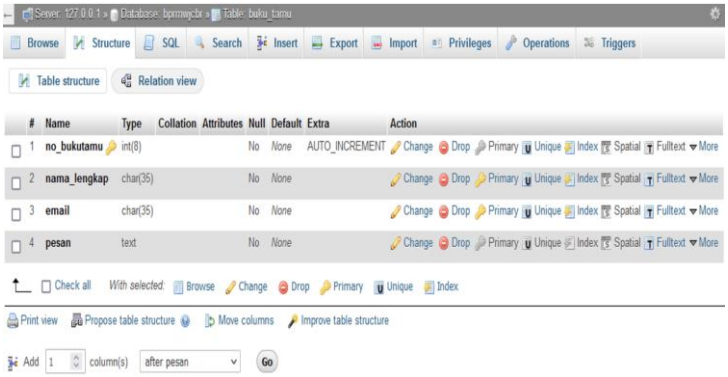


Figure 4. Guest book table

5. Category Table

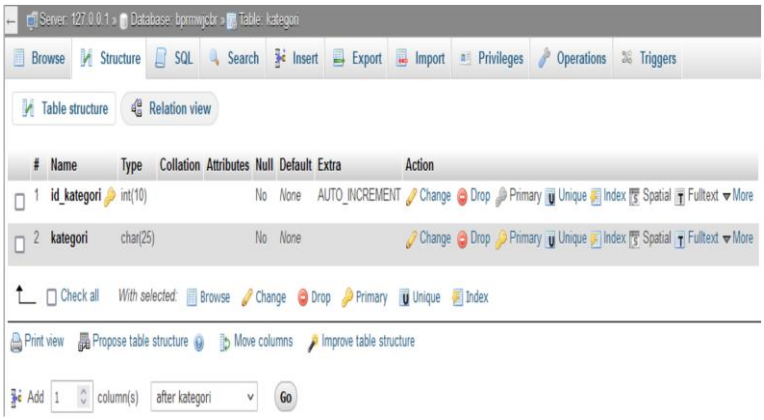
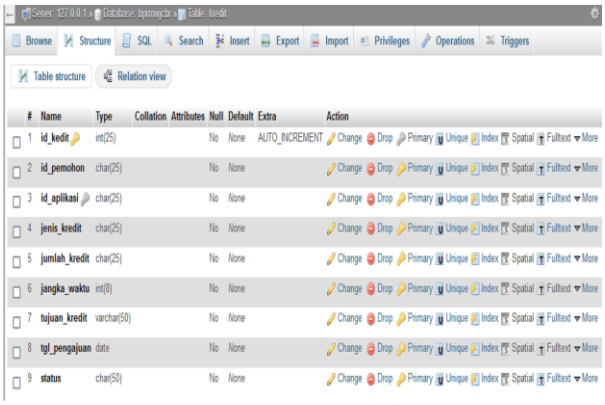


Figure 5. Category Table

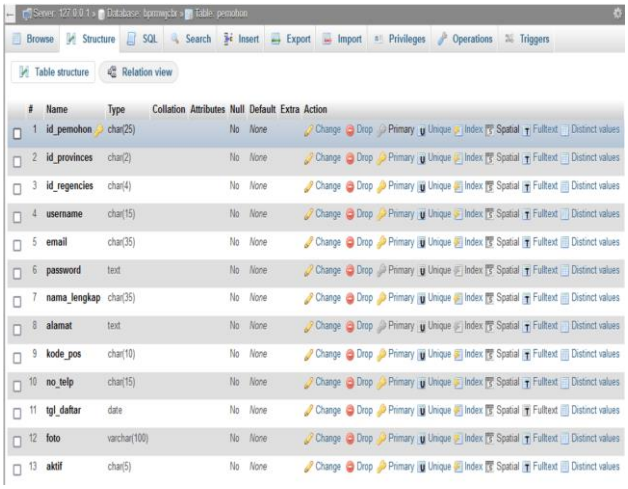
6. Credit Table



#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	id_kedit	int(25)			No	None	AUTO_INCREMENT	Change Drop Primary Unique Index Spatial Fulltext More
2	id_pemohon	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
3	id_aplikasi	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
4	jenis_kredit	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
5	jumlah_kredit	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
6	jangka_waktu	int(8)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
7	tujuan_kredit	varchar(50)			No	None		Change Drop Primary Unique Index Spatial Fulltext More
8	tgl_pengajuan	date			No	None		Change Drop Primary Unique Index Spatial Fulltext More
9	status	char(50)			No	None		Change Drop Primary Unique Index Spatial Fulltext More

Figure 6. Credit Table

7. Applicant's Desk



#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	id_pemohon	char(25)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
2	id_provinces	char(2)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
3	id_regencies	char(4)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
4	username	char(15)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
5	email	char(35)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
6	password	text			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
7	nama_lengkap	char(35)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
8	alamat	text			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
9	kode_pos	char(10)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
10	no_telp	char(15)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
11	tgl_daftar	date			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
12	foto	varchar(100)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
13	aktif	char(5)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values

Figure 7. Applicant Table

8. Message Desk

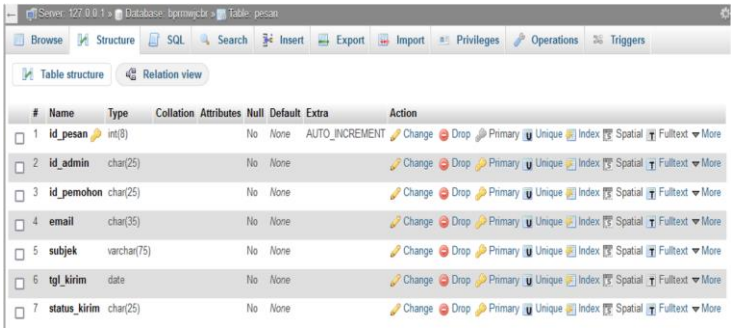


Figure 8. Message Table

9. Product Table

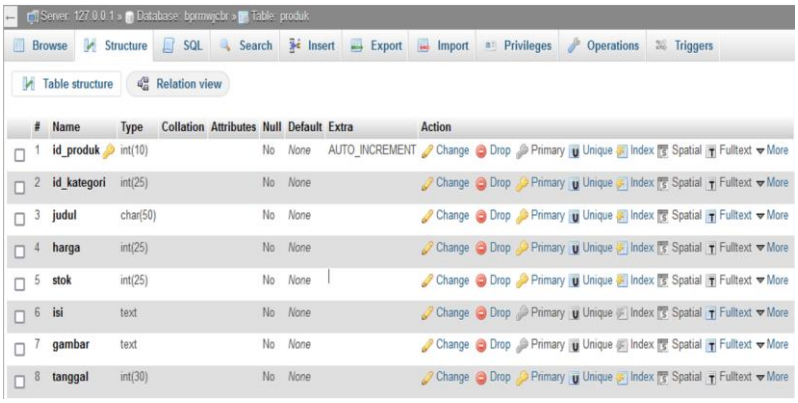


Figure 9. Product Table

10. Provincial Table

Figure 10. Provincial Table

11. District Table

Figure 11. District Table

The following is the appearance of the Web-Based Credit Application Information System program at BPRS Al-Ihsan:

1. Login Form

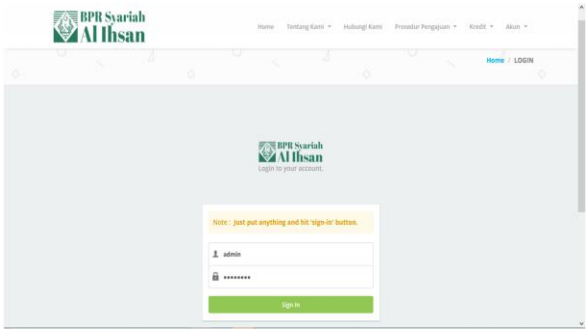


Figure 12. Applicant Login Form

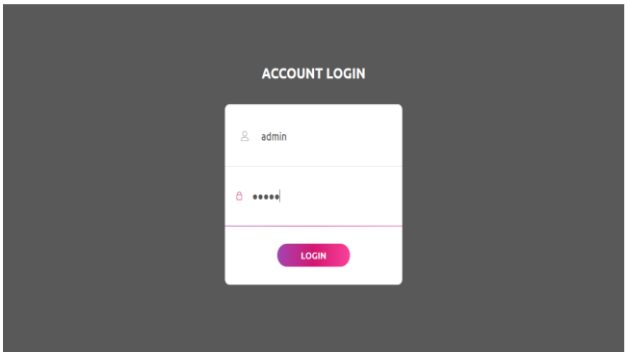


Figure 13. Admin Login Form

2. Home Appearance

Figure 14. View of the Applicant's House

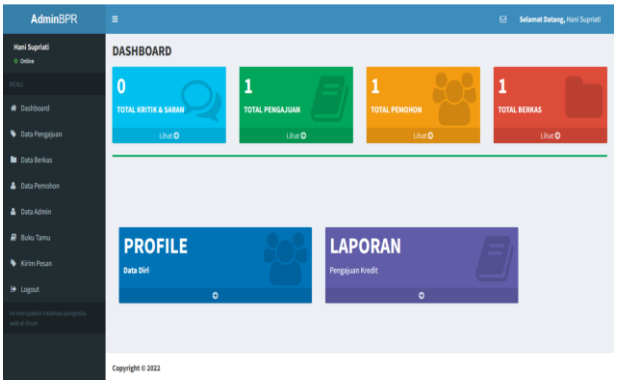


Figure 15. Home Admin display

3. About Us Menu Display

Figure 16. Vision and Mission Display

Figure 17. Organizational Structure Display

4. Contact Us display

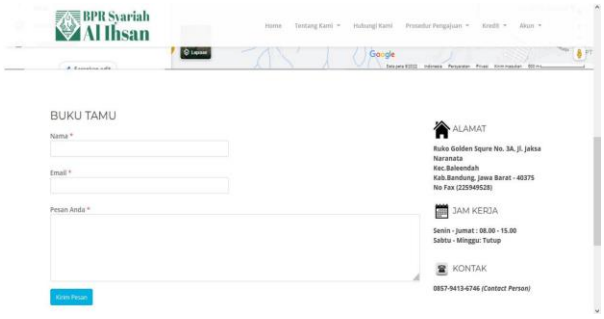


Figure 18. Contact Us display

5. Submission Procedure Display

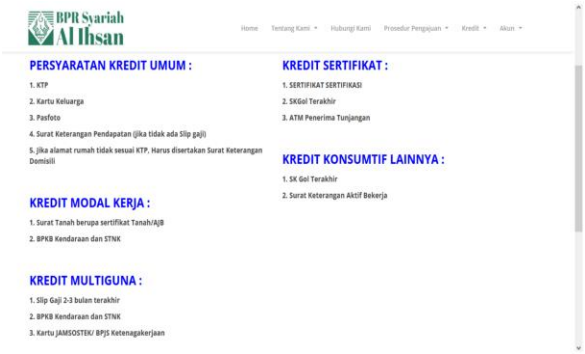


Figure 19. Display of Submission Requirements

Figure 20. Submission Flow Display

6. Account List View

Figure 21. Account List Display

7. Submission Form Display

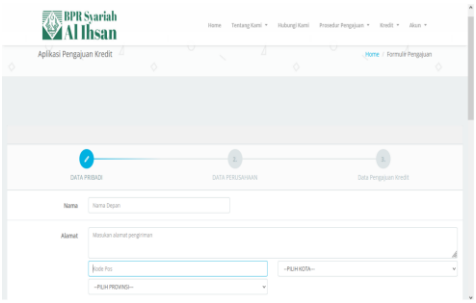


Figure 22. Personal Data Form Display

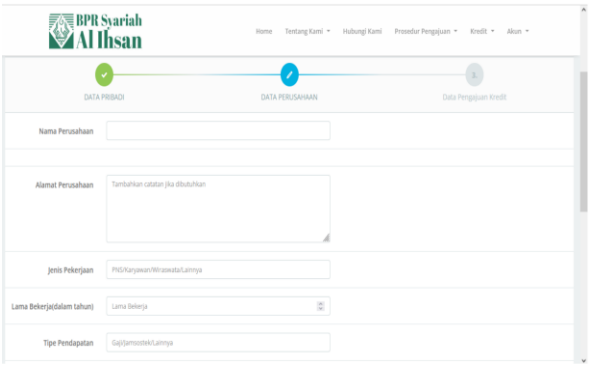


Figure 23. Display of Company Data Form

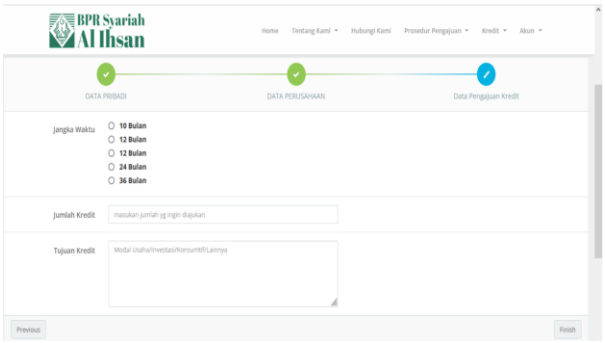


Figure 24. Display of Credit Application Data Form

8. Upload Data View

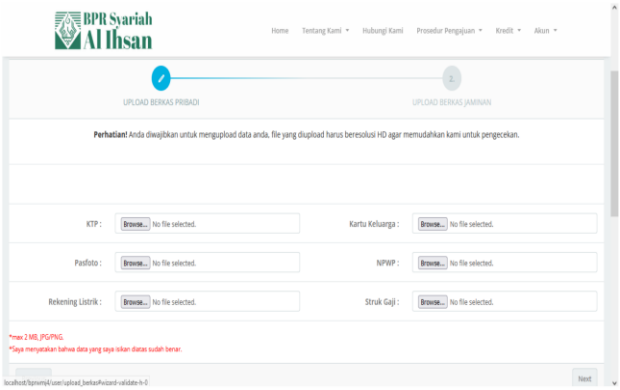


Figure 25. Display of Personal File Upload Form

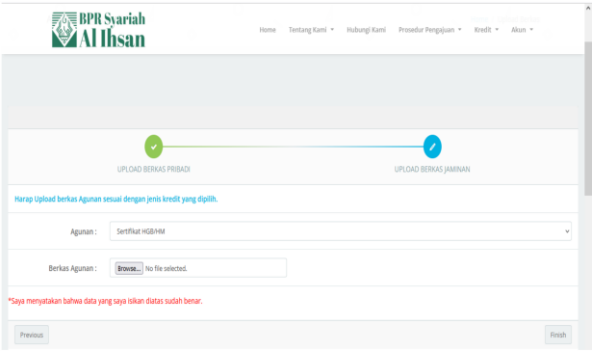


Figure 26. Display of the Guarantee File Upload Form

9. Credit Simulation Display

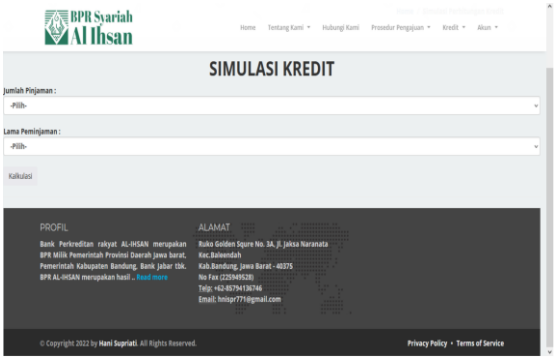


Figure 27. Credit Simulation Display

10. Guestbook View

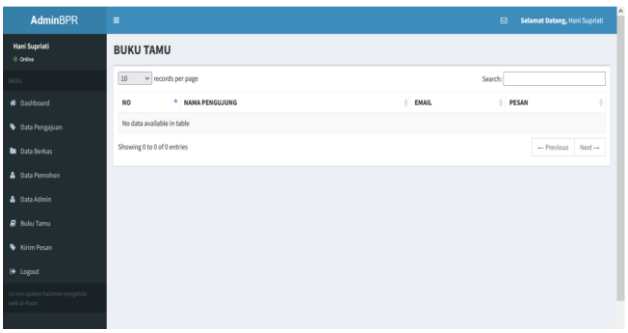


Figure 28. Guestbook display

11. Applicant File Data Display

Figure 29. Applicant File Data

12. Admin List Data Display

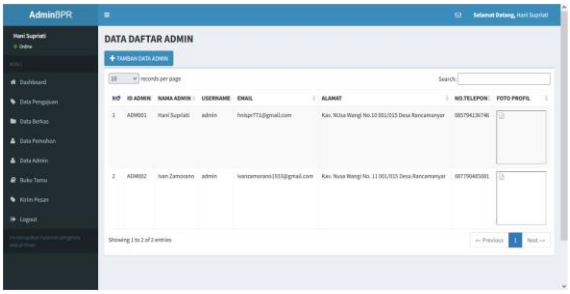


Figure 30. Admin List Data

13. Display of Credit Application Data

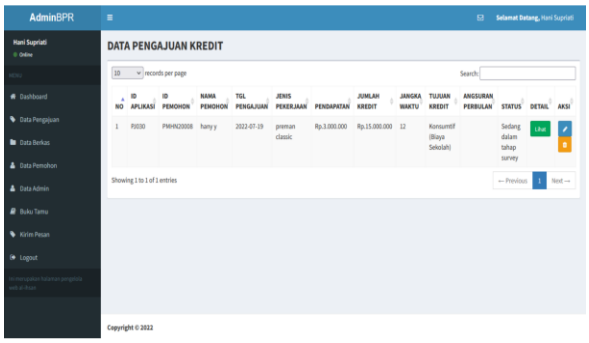


Figure 31. Credit Application Data Display

14. Applicant Data Display

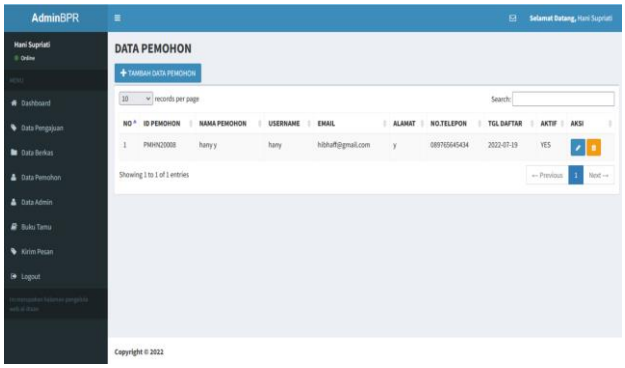


Figure 32. Applicant Data Display

15. Send Message View

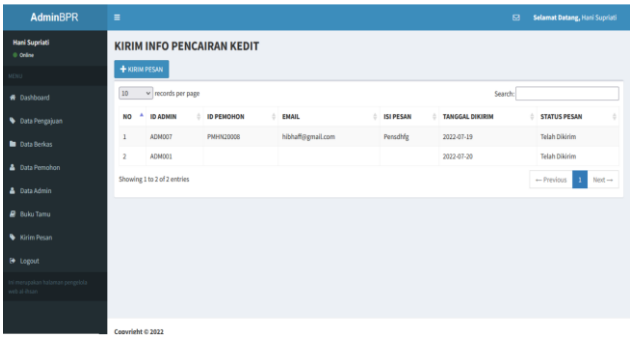


Figure 33. Send Message Display

Conclusion

Based on the discussion of research regarding the Credit Application Information System at one of the sharia financial institutions in Bandung, it can be concluded that designing a web-based credit application information system that will make it easier for applicants to obtain credit application information, as well as expedite operational work at one of the sharia financial institutions in Bandung. This research produces a system that is expected to reduce the use of physical documents, which results in too much paper being used so that many documents pile up and take up

much space. As well as preventing errors in the process of recording credit applications. Based on the results that have been obtained, suggestions in future research are that this credit application website program should be developed again into a better program, as well as adding other features that will be needed later, as well as the need for good system maintenance so that problems do not occur frequently.

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