



## SERCOB APPLICATION DESIGN: IT CONSULTANT IN OVERCOMING COMPUTER PROBLEMS IN THE DIGITAL 4.0 ERA

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### ABSTRACT

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The use of computers in the digital era 4.0 is increasing rapidly; with the increasing use of computers, the problems experienced by computer users are also increasing. With the problems encountered by computer users, a computer service center is needed to solve computer user problems. SERCOB-IT functions as a platform that provides technicians and service points according to the location of computer users who experience computer problems. SERCOB-IT is a website-based application with an order-taking function and learning media related to laptop maintenance and information about laptops. Through the Independent Learning Activity Program for Merdeka Edupreneur Campus, the SERCOB-IT application has been launched and advertised through several offline and online social media. Therefore, it has the opportunity to become a new digital-based company.

### 1. Introduction

In this digital era 4.0, computers, both personal computers and laptops, are very high, especially among students. Juraida's survey shows that 92% of students use laptops in public places for college purposes [1]. The computer is a technology that allows a person to perform high computing wherever he is. However, the laptop device will be damaged in long-term use, or a collision occurs on the laptop device itself.

The features of computers are very diverse, and the types of computer damage also vary, ranging from hardware damage to software damage. The owner usually repairs the computer repair provider, such as a computer service shop. However, in practice, computer service can only be done by visiting the physical store of the computer service store. Of course, it will take time, especially if the user does not know the location of the service store [2][3].

The use of a website application platform can be used as a solution in computer service. By using this application, users can more easily consult and solve problems on laptops or personal computers. In addition, this application can also provide education to users about issues that often occur on laptops or computers, how to care for and how to use computers properly [4].

Therefore, the authors create a forum for professional technicians in Medan to make it easier for customers to consult and fix problems that exist on computers/laptops. In addition, this application will also educate customers about issues that often occur on computers, how to take care of computers and how to use computers properly so that they are not easily damaged. The construction of this website is also a forum that provides services on solving problems that occur on computers. However, with this start-up, it can also educate users about computers and laptops. Education, also called education, is any planned effort to influence other people, whether individuals, groups, or communities, to do what is expected by educational actors [5]. Education is a learning process from not knowing to know. Educating users about the problems that occur on the computer will be presented through videos or reading that can add insight to the user. This



website can also reduce the estimated cost needed to build a job. This website-based start-up no longer requires high prices due to the lack of leasing the building to open the shop.

The increase in computer users from year to year in the city of Medan was seen in 2017 as much as 8.84%, in 2018 as much as 18.85% and in 2019 as much as 19.06% [6]. Although laptop and computer users are increasing every year, there are still many who cannot deal with problems related to operating system damage or hardware damage. Based on the data obtained about the literacy of the people of the city of Medan about the issues that often occur in computers, it provides its opportunity to make this start-up, namely opening a business in the field of computer service. The market opportunity for the design of this start-up is also still promising in the future due to the competition in the computer service business in the city of Medan, which is still far from feasible. Based on that thought, the author took the initiative to establish a computer service business that can be trusted and can educate consumers.

## 2. Method

This research method is carried out by preparing the system development, testing the website functionality and checking bugs, evaluating the system and implementing the system [7][8].

### 2.1 System Planning

Website design is carried out according to the required needs, starting from establishing interactive features and menus on the website. The CRUD (Create, Read, Update, Delete) function was also added to the initial design of the SERCOB-IT website.

### 2.2 System Evaluation

System evaluation is done by testing the website that has been done by involving many users (users) in it so that deficiencies and bug checks are found on the website.

### 2.3 System Implementation

We are launching a website by hosting and providing a domain on the SERCOB-IT website with the domain [sercob-it.com](http://sercob-it.com). With the website's success, the website can be accessed by users and technicians and admins who are connected in one system.

### 2.4 Website Maintenance

Website maintenance is a combination of actions taken to maintain assets and improve them so that they are always in a ready-to-use state to carry out productivity effectively and efficiently following standards (functional and quality), starting from reviewing all pages on the site functioning properly and correctly, check the structural elements on each page and ensure that images and functions are displayed correctly on all pages [3].

## 3. Results and Discussion

### 3.1 Website

Based on website product testimonials (Figure 1 and Figure 2). SERCOB-IT is built with PHP language with Visual Studio Code IDE. The results of the testimonials are in the form of a questionnaire on the assessment of appearance, ease of use and usefulness of the SERCOB-IT website. The SERCOB-IT website also creates job opportunities for individuals who have skills in various fields of computing. The SERCOB-IT website is intended for computer users and technicians who will cooperate with SERCOB-IT in performing computer services. To make the SERCOB-IT Website known to a broader audience, the researchers carried out advertisements from several social media such as Instagram, Facebook, Twitter and e-commerce such as Tokopedia, Shopee.

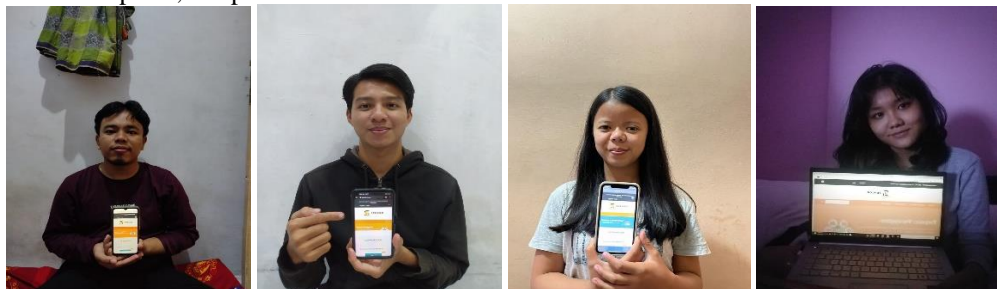


Figure 1. Testimonials from the SERCOB-IT Website via mobile and desktop



Figure 2. The initial view of the SERCOB-IT Website Website

### 3.2 Special Potential

- a. Benefits to Social, Economic and Environmental Aspects  
The SERCOB-IT website provides services that connect service users with technicians, which is a new idea that has never been developed before and has the opportunity to be known to a broad audience to form new jobs that can reduce unemployment.
- b. Organizational Strategy and Human Resources  
Excellent human resources are human resources who do routine work and show performance in added value. The SERCOB-IT website has the potential to increase technicians' performance through the implementation of a reward and punishment system and training.
- c. Business Expansion  
SERCOB-IT website can expand distribution by collaborating with other service shops that can also be used, especially in the digital 4.0 era.

### 4. Conclusion

The SERCOB-IT website has an excellent opportunity to be developed into a new business as an alternative in computer services in the digital 4.0 era. The SERCOB-IT website has advantages such as increasing the effectiveness and efficiency of time in computer service services, displayed attractively and practically. Furthermore, the SERCOB-IT website connects computer service technicians with users, thereby increasing this computer service's effectiveness and time efficiency. The SERCOB-IT website will be easily recognized by a broad audience thanks to offline and online advertising through Facebook, Instagram, WhatsApp, Shopee, Tokopedia and is well known in and outside the city of Medan. Therefore, the SERCOB-IT website has an excellent opportunity to create new job opportunities to reduce the unemployment rate.

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