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SCRUM Metode Implementation for Build Up Responsive Shoes Laundry Front Web End

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ABSTRACT

This research examines the development of a responsive website front end for shoe laundry services using the SCRUM method. In the context of the development of information technology, especially the internet, web-based websites are important for human life, but there are still some people who do not understand the development process. This research aims to introduce and implement the principles of responsive website design, as well as facilitate understanding and skills in website development to shoe laundry businesses. The SCRUM method was chosen to ensure website development in accordance with user needs and rapid market dynamics. The results include the development of a responsive and user-friendly front end website using HTML, CSS, JavaScript, and ReactJS. This project provides benefits to the campus as an example of the application of technology in the industrial world and increases the researcher's knowledge in web development and the SCRUM method.

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1. INTRODUCTION

In the era of rapid technological development, especially in website development. Website-based software has facilitated many aspects of life. In this study the authors will design and build a web to facilitate services in shoe laundry (WASHUP SHOES) using the JavaScript library ReactJS and the implementation of the SCRUM Method.

In developing this web-based software, the SCRUM method will be used to offer a structured and adaptive approach to ensure responsive front end web development according to user needs. The SCRUM method is an agile process development method that allows changing requirements during the software development process [1]. SCRUM is a framework that can overcome a complex problem that is always changing, and is also considered to be able to provide good product quality according to user desires creatively and productively [2].

2. METHOD

In this research, data is obtained through the SCRUM method which is based on creative problem solving and based on human needs. The stages in the SCRUM method are as follows:

1. SCRUM Team Creation. In carrying out a SCRUM process in order to run smoothly, it is very necessary to appoint team members. This team must have a variety of diverse competencies, ranging from web developers, web design, business analysts and many others.
2. Appointing the Scrum Master. After appointing people who are members of a team, appoint someone who will be responsible for holding the role of scrum master. Scrum master is a person

who will determine a scrum team will work effectively and also progressively, this position is also almost similar to the project manager.

3. Determine the Process Timeframe. Most stages of the scrum method can be completed within a period of 7 to 30 days, therefore it is necessary to hold a meeting in order to determine what each member does and also who will be responsible for each job in the running of this scrum.
4. Appoint Product Owner. Apart from the selection of the scrum master, the scrum team must have a product owner, in a position of having a power in determining a team will provide results that are in sync with client requests. A product owner also usually interacts frequently with clients to discuss projects.
5. Creating a Product Backlog. Product backlog is a consequential piece in the scrum method stage, in this product backlog there is the importance of the desired user story to be completed rather than a project, the more important a user story is, the higher its position on the backlog list.
6. Starting the Sprint. The next stage is for this scrum team to carry out a sprint, this activity will begin as the first stage of the scrum method, the first thing that will be done is to work on the first thing in the backlog.
7. End of Sprint. If a project has been completed, the next stage that will be carried out in carrying out this scrum method is to close this sprint and then start a new one, it is also necessary to also conduct an assessment of a completed sprint process so that the work process can be smoother in the next project. The flow chart of the scrum method can be seen in Figure 1 below

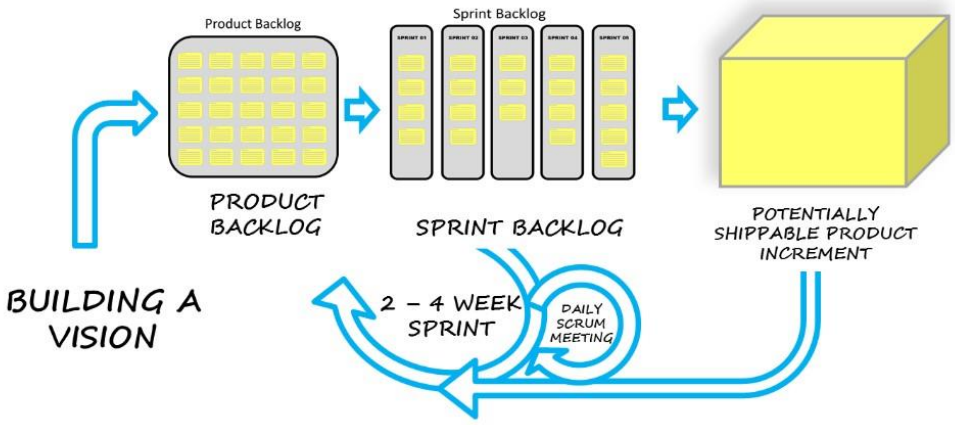

Figure 1. SCRUM Methode Flow Chart

3. RESULTS AND DISCUSSION

The following are the steps that the author took when conducting this research.

1. Product Backlog Creation. In the stage of creating a product backlog, the determination of the backlog feature selection will be made based on the priorities of the product owner. the following table 1 is a table of features from the backlog that has been created

Table 1. features of backlog

No	Backlog Name	Time Estimate
1	Landing Page	4 Days
2	About Page	4 Days
3	Service Page	10 Days
4	Galery Page	5 Days
5	Invoice Page	7 Days
6	Sign in/Sign up	10 Days

2. Sprint Phase. At this stage, the scrum team discusses the workflow of the system to be developed. The scrum phase focuses on creating diagrams such as usecase diagrams, flowchart diagrams and

sequence diagrams. The process is coordinated with all team members and is carried out three times based on the number of sprints.

3. Sprint Review. At the sprint review stage, it will be explained about what has been done and to what stage the work on the project is based on the product backlog. Then it will be reviewed to see if there is still a product backlog that needs to be changed or not.
4. Designing the Website. The following will explain the appearance of the website which was built using react js and bootstrap. This aims to provide an overview of how this web looks like. Web applications built using react js and bootstrap will allow getting a minimalist and responsive web display. The following is an overview of the web view:
   a. Landing page display: This page contains advertisements from the website.

Figure 2. Landing Page Display View

   b. About page display: This page contains information and identity of the business.

Figure 3. About page Display View

c. Service view: This page contains the services provided from the business.

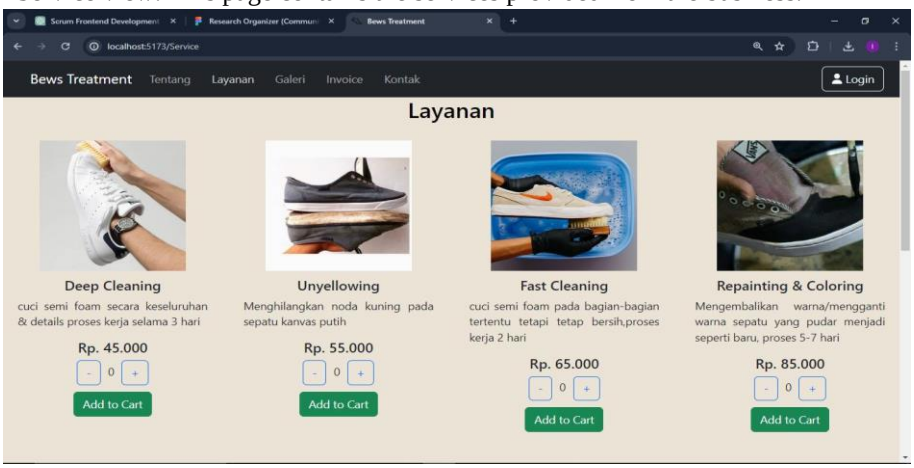

Figure 4. Service View

d. Gallery View: This page contains documentation of the services provided.

Figure 5. Gallery View

e. Invoice View: This page serves to check the receipt of transactions that have occurred.

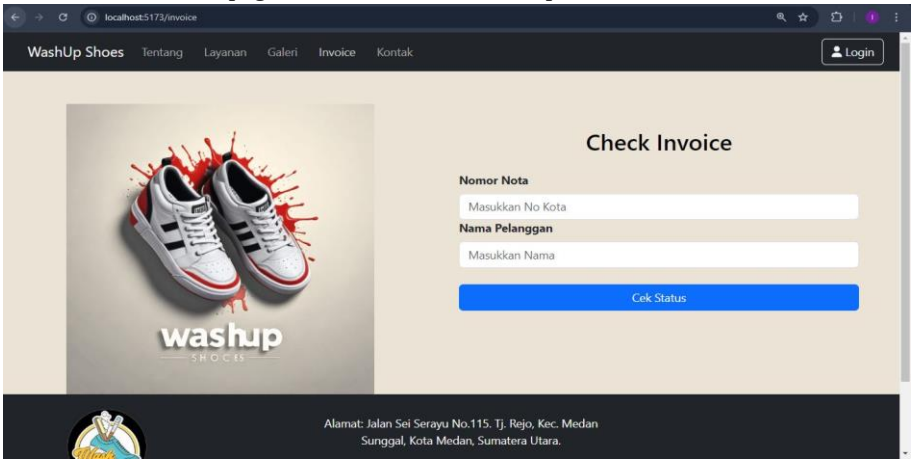

Figure 6. Invoice View

f. Contact View: This page contains information from service providers, such as wa numbers and instagram.

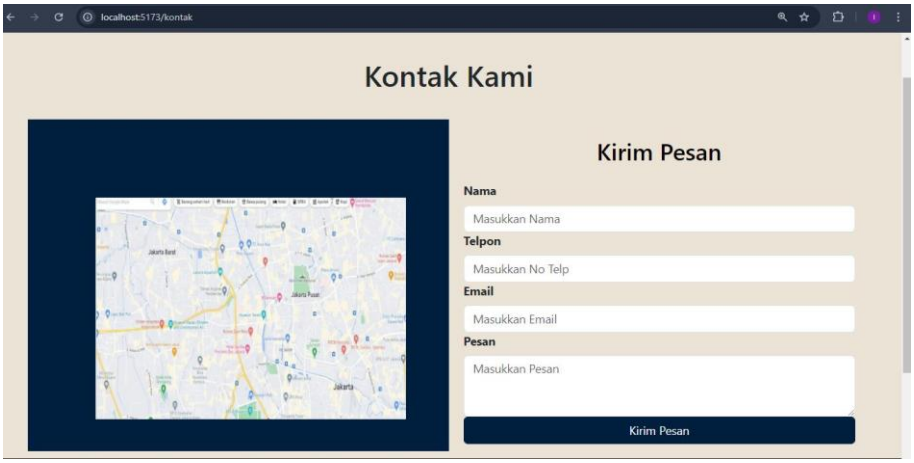

Figure 7. Contact View

g. Login Form Display: This page serves to log in to the website before transacting.

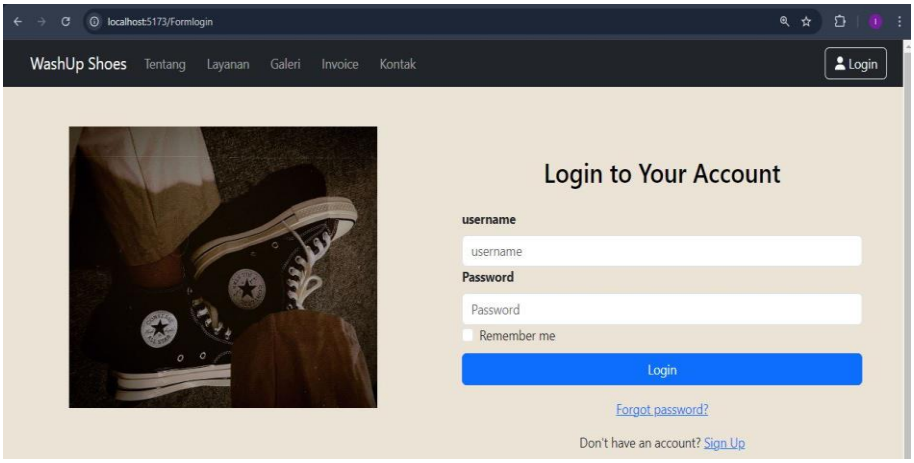

Figure 8. Login Form Display View

h. Sign Up Form Display: This page serves to register into the website.

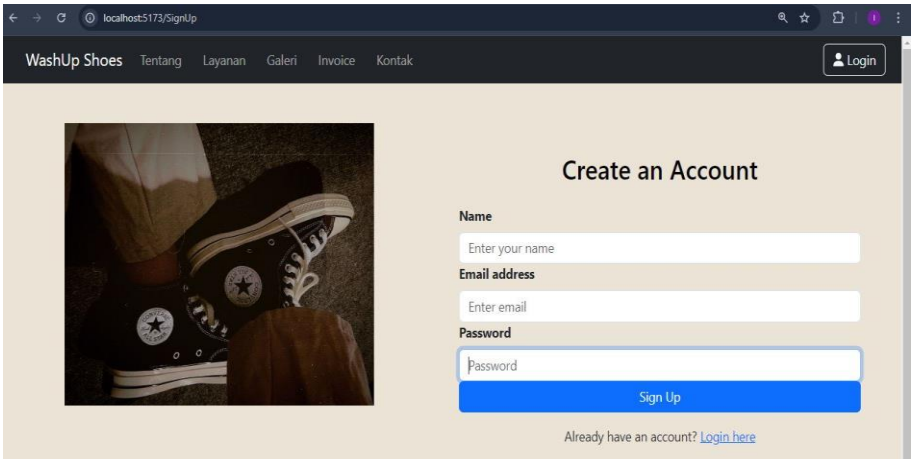

Figure 9. Sign Up Form Display View

Based on the research that has been carried out in building applications in the form of this website, the results obtained include several main aspects related to the development of website front ends for shoe laundry services using SCRUM methods. First of all, the results of this research include the development of a

responsive and user-friendly website front end for shoe laundry services. The development process involves the use of HTML, CSS, and JavaScript as the core technologies to build the website's appearance. A responsive front end is essential to ensure users can optimally access the service from various devices, such as desktop computers, laptops, tablets, or smartphones. In addition, the results of this research also include the application of the SCRUM method in website front end development. The SCRUM method provides a structured and adaptive approach to software development, allowing teams to respond more flexibly to changing user needs and market dynamics. By dividing the project into short iterations called sprints, the team can regularly evaluate and improve the product being developed.

4. CONCLUSION

The development of a responsive and user-friendly front end website using HTML, CSS, JavaScript and ReactJS as core technologies was successfully carried out. This ensures users can access the service optimally from various devices. The SCRUM method provides a structured and flexible framework for software development. By dividing the project into short sprints, the team can regularly evaluate and improve the product under development. This allows the team to respond more effectively to changing user needs and market dynamics. This project provided the researcher with knowledge about front end web development, SCRUM method, and design thinking principles in the context of web application development.

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