Impact of Rapid Application Development (RAD) Methodology on Web-Based Production Report Information System Development: A Case Study at PT. Nichias Metalwork Indonesia

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Abstract
In general, production management involves a variety of jobs where specialists in management can express their judgment. Due to ongoing Due to ongoing company challenges, challenges, the production section's data input procedure still utilizes paper forms that are physically filled out and then collected at the PT. Nichias Metalwork Indonesia. Because they have to take the report form on the supervisor's desk, it is more difficult for the admin to enter data. Rapid Application Development (RAD) is the name of the research methodology that was employed. This approach emphasizes realizing the era of quick software development where the model is created early to define user needs. The mechanism for producing reports was developed. The objective of this study is to develop and build a production report information system to streamline the process of entering and reporting production at PT. Nichias Metalwork Indonesia to in there to reduce the disparity between output and inventory.

Keywords: Production management, Specialist management, Data input procedures, Paper forms.

INTRODUCTION

The growth of information technology for entrepreneurs in Indonesia is very rapid, especially in the city of Bandung. Therefore, information technology is supported by adequate and qualified natural and human resources. A variety of information is required for an information technology infrastructure that provides various competitive advantages for the world of business and industry so that business and industry players can compete with other business actors. And current technological advances are very supportive to be developed into a system that relies on technological advances. One example is the field of information technology and data processing (Putra et al., 2021) .

An information system is a set of organizational procedures that, when implemented, will provide information for making decisions or controlling information. It is a computer-based information system that uses decision models and special databases to assist the decision-making process for managerial end users (Wayan Sumartini Saraswati et al., 2021) .

Production is an important and core thing in the company. Production management decision making is based on the production process that takes place in the company. When a company carries out production, of course it has time to complete tasks created for the workforce so that the production process runs well (Putri & Effendi, 2018). In the field of production management, the process concerns the initial stages in the company because the production process is very important and with good time planning, you can manage the time taken when making the product more efficiently (Azhari, 2016) .

Production management is a very vital element in business management which functions to regulate an activity in order to achieve goals. Knowledge of management teaches how an

209

organization or company can achieve its goals and objectives, namely effective and efficient as a standard of success achieved (Rachmat et al., 2019) .

Production management is said to be a process in managing all production resources effectively and efficiently to increase their use value. In addition, production management is also seen as a study of science in making decisions in the production function in order to create output that is right on target with efficient production costs but has benefits. value-added benefits (Rafi et al., 2022) .

In general, production management consists of several functions in which management experts give their respective opinions. This management function will lead to the attainment of goals in an organization by producing high-value products through the stages of the management function (Fadilah Najwa et al., nd) .

From the problems at PT. Nichias Metalwork Indonesia in the production section, the process of inputting production report data still uses sheets of paper which are done manually and then collected at the supervisor's desk, and hinders the process of inputting data by the admin, because the admin has to take the report sheets that are on the supervisor's desk (Malau & Suseno, 2022) .

Based on the above problems, this information system was created using the Rapid Application Development method which began with the stages of analysis, design, coding, and the testing phase which was carried out with the aim of being able to overcome these problems, PT. Nichias Metalwork Indonesia requires a data entry system for production reports so that this system is expected to help employees perform more effectively and efficiently in inputting data (Saiful Anwar et al., nd) .

RESEARCH METHOD

The research instruments used in the research are: 1. Analysis of Non-Functional Requirements The following are requirements that are not directly related to certain features in the system. Non-functional requirements of this information system include: a. Security manages the data system in replacing, adding and deleting data that can be done by the developer b. The language used is Indonesian c. The application is displayed in Indonesian and the system interface d. Accessibility e. Development of a web-based production report information system at PT. Nichias Metalwork Indonesia: 2. Analysis of Data Requirements Data collected based on web-based production report data at PT. Nichias Metalwork Indonesia (Subianto et al., 2020) .
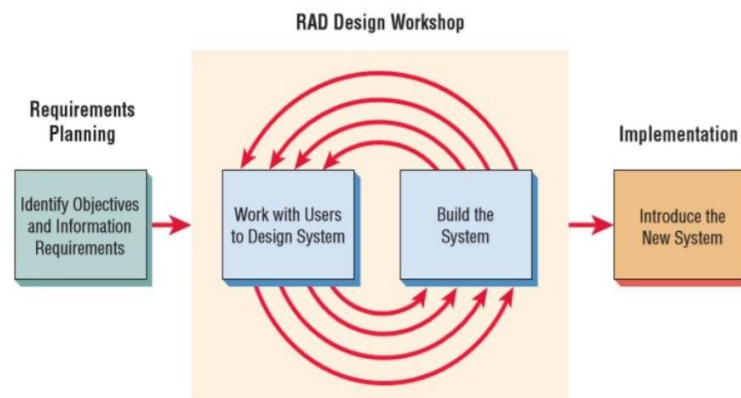

Figure 1 . Rapid Application Development

The following is an analysis of problems in web-based production reports at PT. Nichias Metalwork Indonesia: 1. The process of inputting data on production results is less efficient because it still uses manual methods so it takes a long time and there needs to be an information system to speed up the process of inputting production results 2. The data retrieval process takes a long time so it is inefficient and unproductive 3. The reports in the warehouse are not accurate because up to now they still use general ledger recording, therefore 32 databases are needed by creating a computerized system, thereby delaying product time. (Saragih, 2018) .

System requirements analysis is made and specifically for Can used by party administration school Which ownduties and authorities for data issues, and files school. The administration can use this system independently online so that school data input can be done anywhere just, with notes Can connected with Internet. Following analysis need system inform input production on PT. Nichias metalwork Indonesia (Sustainable & Purfini, nd) .

RESULTS AND DISCUSSIONS

In conducting research on the production information system of PT. Nichiasmetalwork Indonesia adalam analysis need system, *Use case diagrams ,Use Case Scenarios , Activity Diagrams , Sequence Diagrams,* ERD (*Entity Relationships Diagram*) and *Class Diagram* (Windane, 2021) .

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a. Operator Do *Login, b.* Operator See List Products, c. Operator Input Results Production, d. Operator Do *Logout* (Alfiah & Damayanti, 2020) .
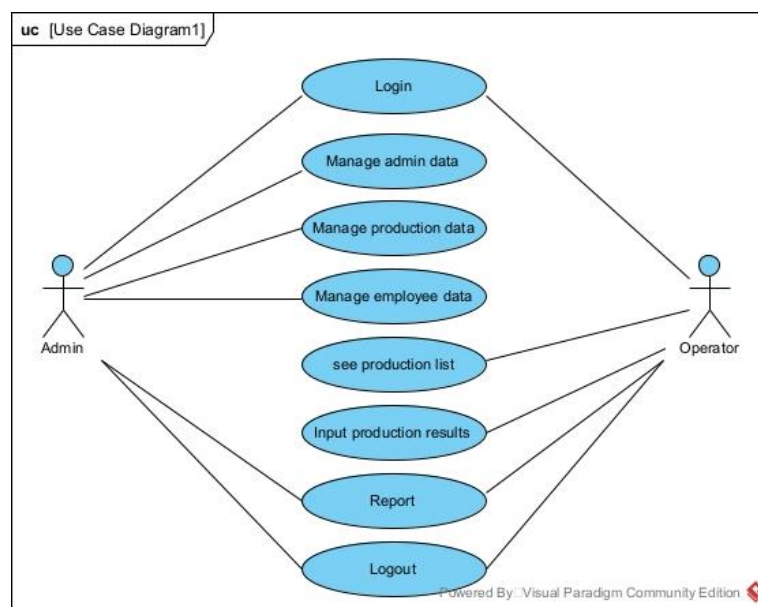

Figure 2 . Use Case Diagram Admin

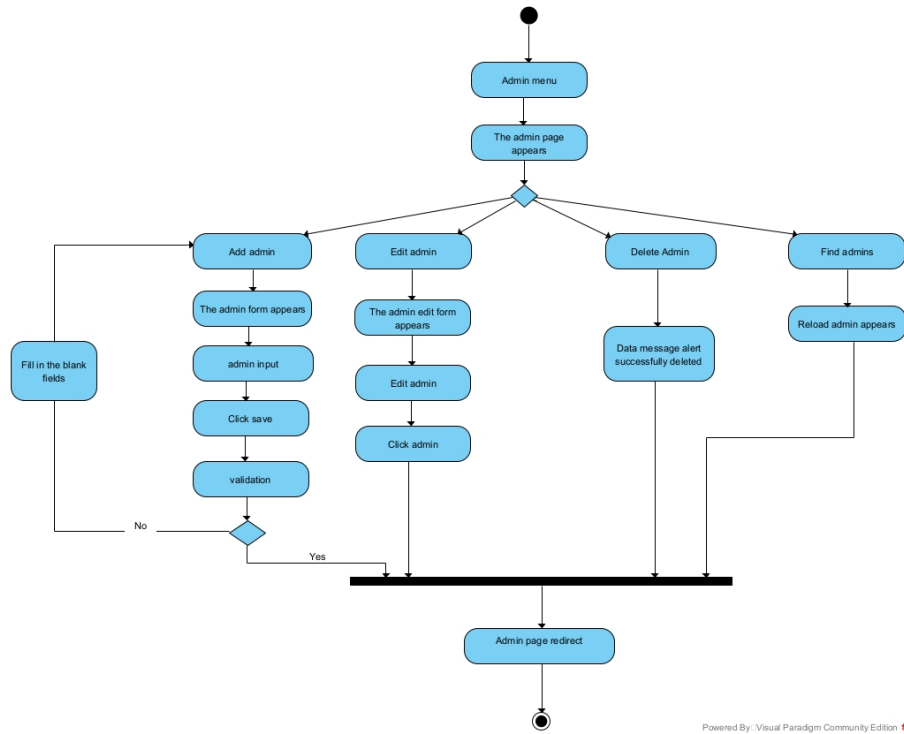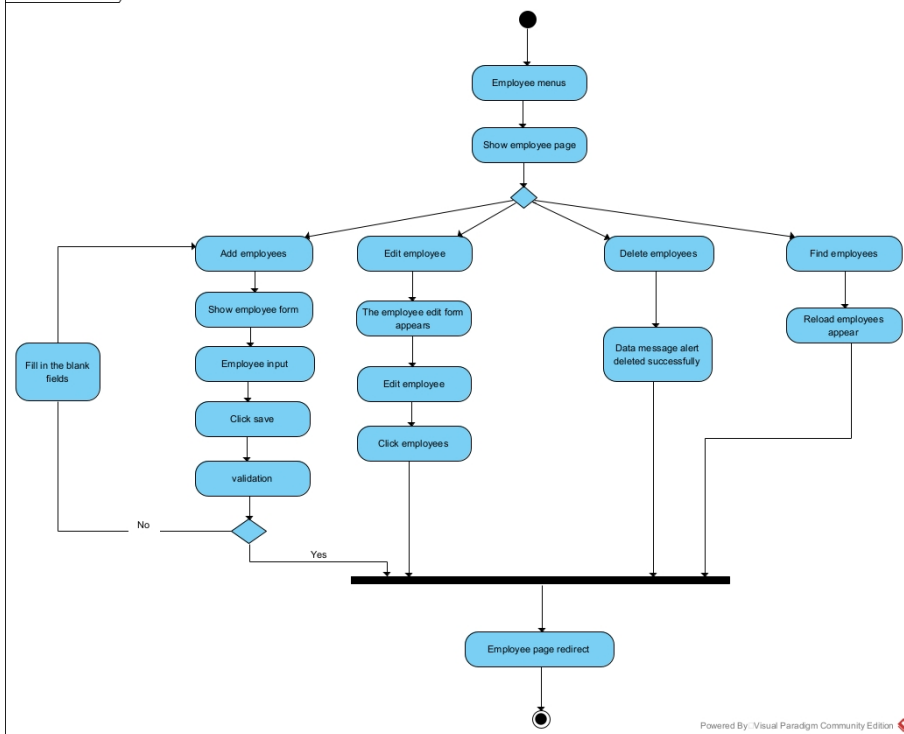**Figure 3 .** Admin Activity Diagram

Figure 4 . Employee Activity Diagrams
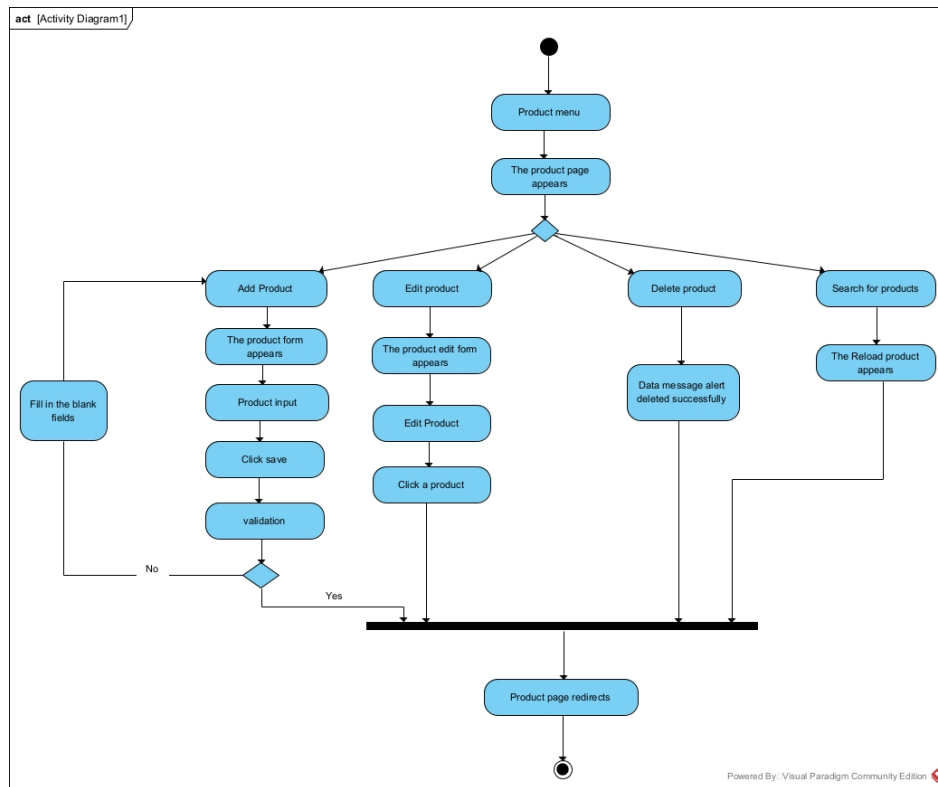
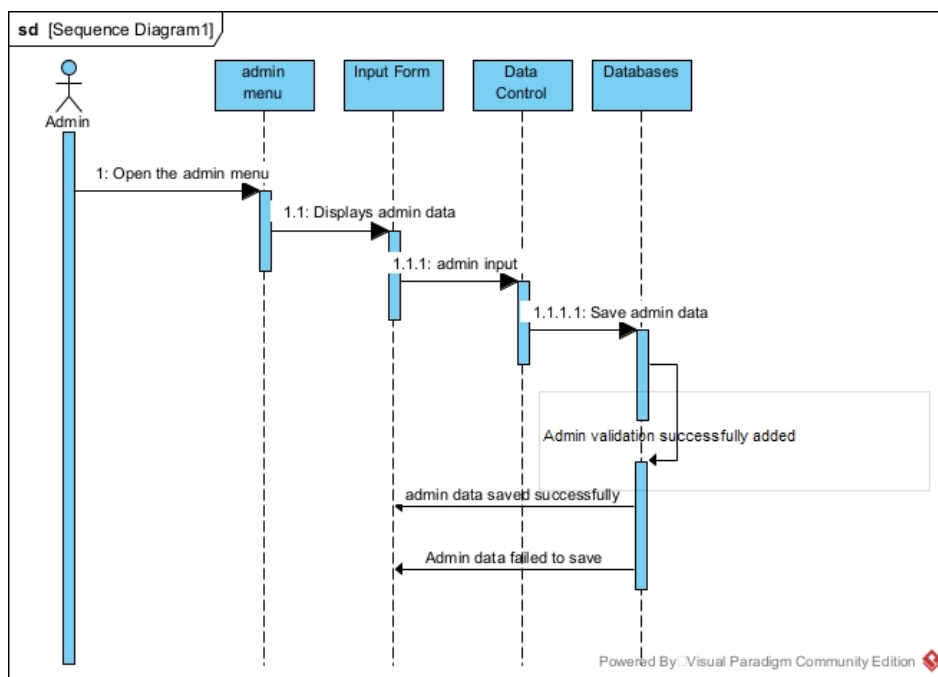**Figure 5 .** Product Activity Diagrams

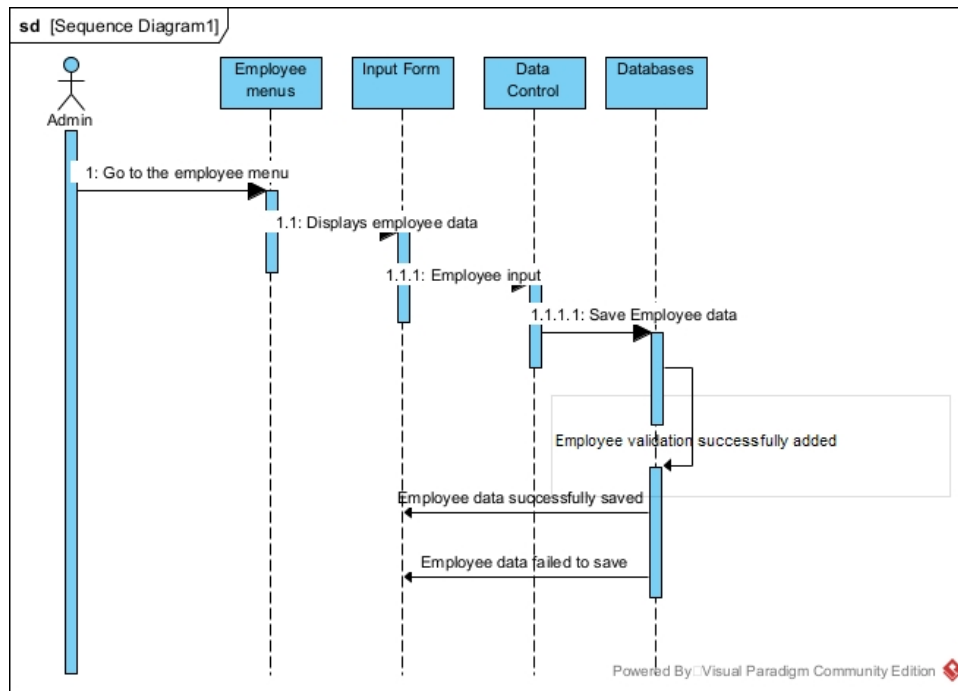**Figure 6 .** Admin Sequence Diagrams

213
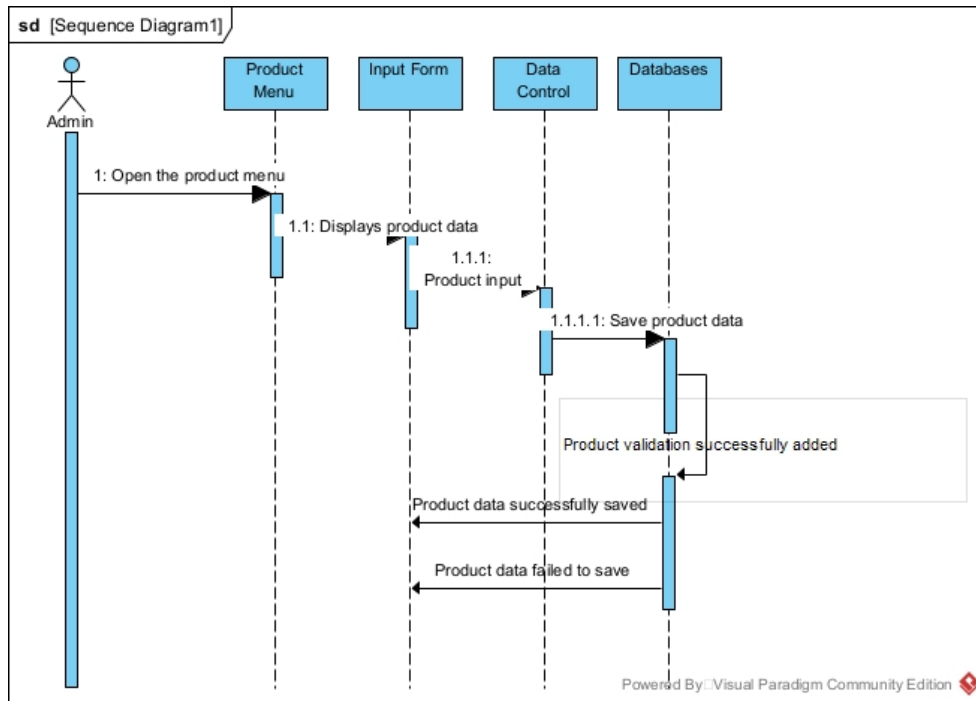
Figure 7 . Employee Sequence Diagram

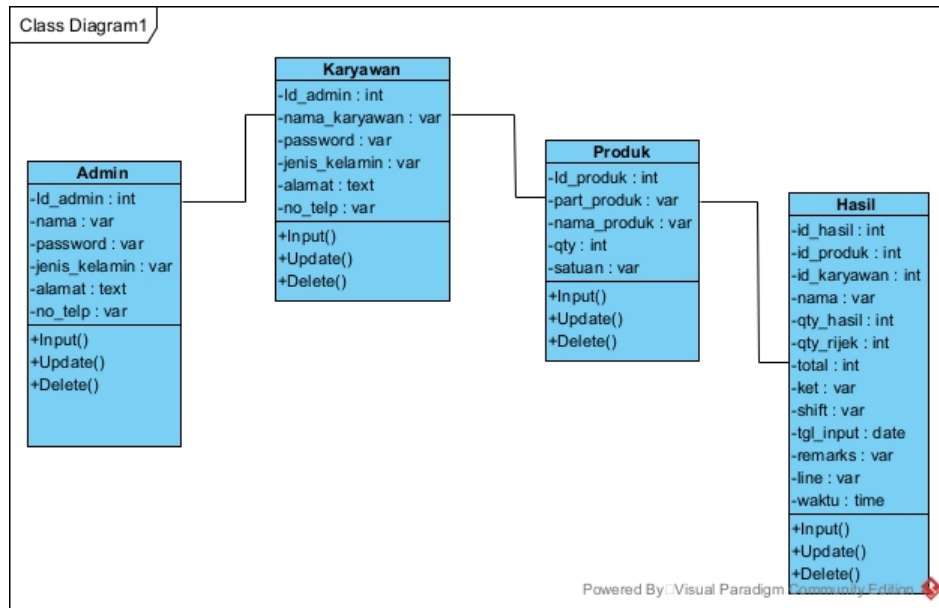**Figure 8 .** Product Sequence Diagrams

Figure 9 . Class Diagrams

CONCLUSION

From results study development system information production on PT. Nichias Metalwork Indonesia so can concluded as following: (a). Design and build a production results reporting information system formake it easier in in checking And input goods For minimizedifference supply production on PT. Nichias Metalwork Indonesia , (b). Design and build a production results reporting information system forspeed up process input And reporting production on PT. Nichias Metalwork Indonesia , (c). Design and build a production results reporting information system for make it easier in making report production on PT. Nichias Metalwork Indonesia.

Suggestions that can be given to develop information systems process This production is : (a). For future researchers, suggestions that can be given are related to study This expected to researcher furthermore For develop this production process information system to be more detailed in details of the production process , (b) Future research is also expected to use more source For look for reference related with development system information production report

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215

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