DESIGNING THE DIGITAL SYSTEM USING SDLC METHODOLOGY TO INCREASE INSPECTION EFFICIENCY AT PT. LV

UNDERGRADUATE FINAL PROJECT

Submitted as one of the requirements to obtain Sarjana Teknik (S.T.)

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SIMILARITY CHECKING RESULT

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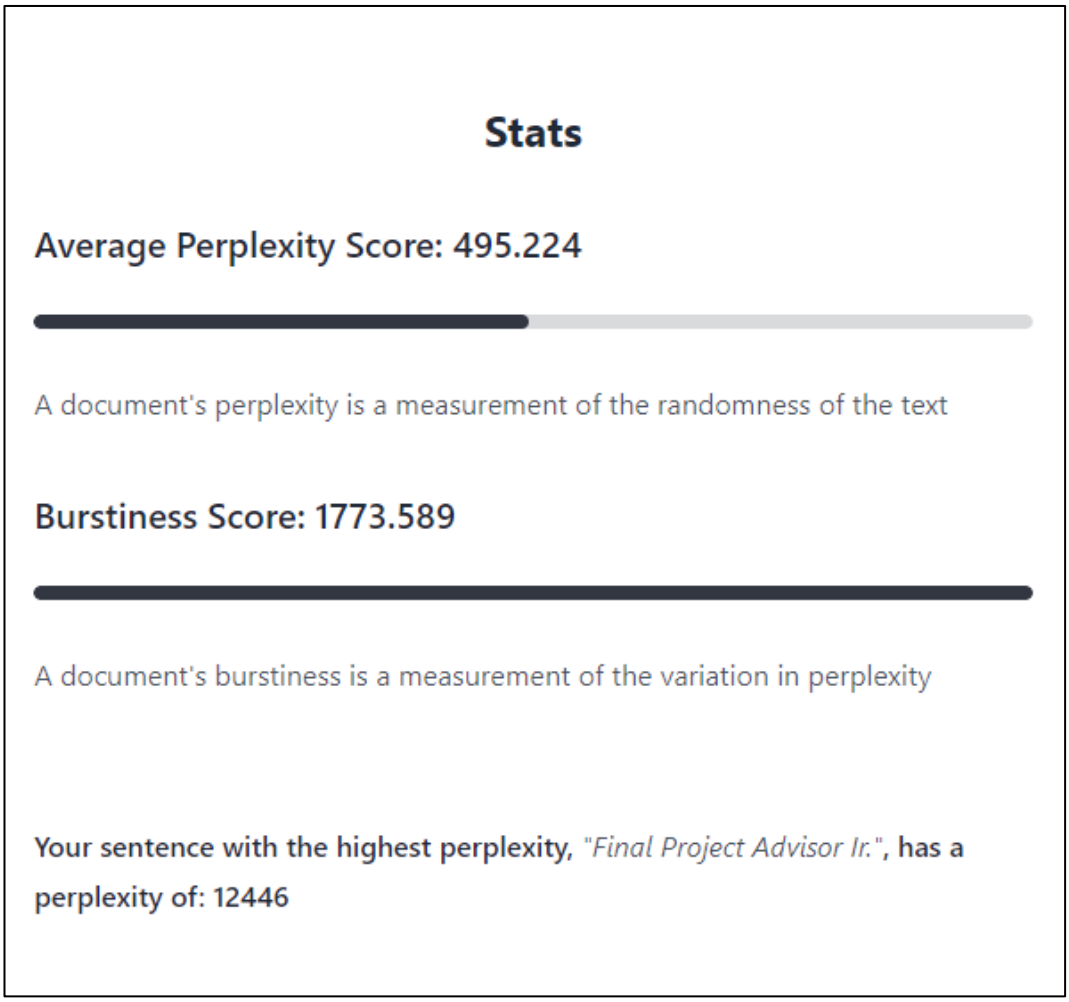
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AI BASED PLAGIRISM CHECKING RESULT



ABSTRACT

PT. LV is a manufacturing company focusing on precision plastic injection molding and electronic assembly. One of PT. LV manual systems is the Inspection Check Sheet (ICS). There is an indication of wrong decision-making regarding the inaccurate data of characteristics dimension of a part which causes the part to be detained. Based on the results of observations from June to August 2023. The number of inaccurate data at the ICS has 13 cases, with the total quantity of retained parts is 6496. There are several disadvantages if it is still done by manually. First, the average time consumed for the current system process takes 2 minutes and 45 seconds. Second, found seven unnecessary repetitive activities. Third, the approval process by Quality Control Supervisor takes once a week. Therefore, this study aims to design a digital ICS system using System Development Life Cycle methodology in order to make inspection check sheets more efficient. Then, the implementation of digital ICS system held from October to December 2022. In its implementation is successfully reducing the number of inaccurate data and retained part significantly to become 0 cases. The impact of designing digital ICS system reduces time consume 72,34% become 46 seconds. There are no more repetitive data input activities. Last, an approval process is done digitally using the digital ICS system.

Keywords: *Inspection Check Sheet, System Development Life Cycle, Digital System, System Improvement, System Design.*

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LIST OF TERMINOLOGIES

Bantex	:	A storage for paper document.
Data Flow Diagram (DFD)	:	Diagram that depicts characteristic data processes and data flow in a system.
Entity Relationship Diagram (ERD)	:	Diagram that depicts the proves flow between entities.
Inspection Check Sheet (ICS)	:	An information format that contains the result of characteristics dimension of a part as a basis for improving product quality according to company standards.
Physical Data Model (PMD)	:	Process that represents how the database of a system are generate based on data tables and columns.
Quality Control Department	:	One of sub-division Quality Control & Production Planning Control at PT. LV that focusing or in charge using the inspection check sheet system.
System Development Life Cycle (SDLC)	:	Is an analytical method for designing the system with approach developed following user cycles and activities.
Visual Basic for Application (VBA Microsoft Excel)	:	A derived of Microsoft Visual Basic programming language that running on Microsoft Excel application.