

**DESIGN AND DEVELOPMENT OF A PRODUCTION SCHEDULING
INFORMATION SYSTEM USING THE EARLIEST DUE DATE METHOD
(Case Study: CV. Dwi Manunggal, Sleman-Yogyakarta)**

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ABSTRACT

CV. Dwi Manunggal is a manufacturing company that provides a variety of powdered beverage products, beauty drinks, and health drinks. A production schedule is essential for controlling raw material needs and production capacity on a daily basis. In this context, the Production Manager (PJ Produksi) faces challenges in allocating the sequence of orders to be produced first. This issue arises due to customers requesting that their orders be completed as quickly as possible. Therefore, an information system is needed to help address the problems associated with production order sequencing. The system will utilize the Earliest Due Date (EDD) method to assist in determining production priorities based on the shortest due dates. The system can manage order data, raw material requirements, and production scheduling data. Its design will be illustrated using Data Flow Diagrams and Entity Relationship Diagrams. Implementation will be carried out using the Laravel framework and MySQL database storage. The resulting system can assist in determining the production sequence based on the earliest order request date and can provide information on raw material requirements for the production process. Testing with GTmetrix resulted in an average system performance rating of Grade A, with performance and structure scores above 90%.

Keywords: Earliest Due Date Method, Production Scheduling, Information System.