# ABSTRACT

*Narista Shoes is a manufacturing company that produces shoe products. Booking by customer becomes the benchmark of this company in determining the production needs. During this production employees do not plan for the purchase of materials so that there is a pile of materials that are not reasonable cash. With the prices of materials changing and often rising material prices caused by the scarcity of the material becomes a major problem for. To overcome these problems, then made a web-based application that can be prepared with the price of materials that fluctuate by using the Material Requirement Planning (MRP) method. MRP is a method for determining the amount of procurement of materials that must be provided to suitably improve the company's productivity by determining the level of production and watching the production. MRP has several calculation and compilation phases that have their respective functions such as arranging Master Production Schedule (MPS), Bill Of Material calculations (BOM), Inventory On Hand (IOH) calculations and lead time. This application has functionality based on the level of production needs to order, calculate the material needs to do the production, preparing the plan of procurement of materials with the price of materials and features. ledger Application design using more interesting modeling from BPMN, Unified Modeling Language (UML), Entity Relationship Diagram (ERD). In the process, web-based applications using PHP programming language with Code Igniter (CI) as a bridge to the MySQL database. While on the display this application is built using HTML and CSS and bootstrap. Testing is done by using Blackbox Testing to ensure there are no errors in the application and results according to needs.*

*Keywords: MRP, MPS, Procurement, Fluctuate Price, Code Igniter.*