

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Journal Study

The purpose of reading a journal that is used as a reference is to get the mindset of the journal writer. To find out what is needed to make this research, as well as the basics and theoretical basis for calculating algorithms. The journal used as a reference uses the C 4.5 algorithm, so that it can be seen the mechanism of algorithm calculation from beginning to end. Especially the author's point of view to look for results that will be tested based on predetermined goals.

3.2 Collecting Data

The data source in this study was taken from PT Gunawan Motor Car Showroom located in Semarang. The data contains sales of showrooms in 2018 , with the categories taken are Merk, Colors, Types, Models, Years. Data retrieval is taken by asking directly to the car sales division.

3.3 Processing Data

Data that has been obtained is entered into notepad in sql format. Data contains categories and subcategories. Categories contain Brands, Colors, Types, Models, Years, while the contents of subcategories are Type: M/ A/ t, Model: Daihatsu, Toyota, Honda, Suzuki, Hyundai, Kia, Mitzubishi. Year: 2012, 2013, 2014. Colors: Black, White, Red, Yellow, Blue. Brands: AvanzaG, JazzVTEC, Luxio X, Panther LS, L300 Box, Karimun Wagon R, GranMax, Swift, Ayla. This data in the form of sql is uploaded to the PHPMyadmin database. Then the data is displayed in the program (PHP language), by creating a "\$koneksi" variable that contains mysqli_connect which functions as a command to call data that has been stored in sql.

3.4 Program

The program is created using the PHP program language. This program consists of 5 php in one folder. With the first php, it is "index.php" whose function is to display the initial menu / display. The second php, is "koneksi.php" which is useful as connecting a database from PHPMyadmin with the program display. The third php, is "perhitungan.php" which functions as a calculation of the beginning to the end of finding the output. The fourth php, is "tabel.php" which serves to display tables from all categories that exist / display all data that has been entered. The last php, is "output.php" which serves to display the final decision of the calculation that has been executed from "perhitungan.php". Program calculation is based on the steps of the C 4.5 algorithm.

3.5 Testing

Testing is done by comparing the results of C 4.5 calculations from Libre Office Calc with calculations using PHP. The data used for testing, contains 50 data which is the fourth month's data. Results from Libre Office Calc are used as a reference to see the accuracy of the PHP program. Accuracy will be compared manually and compared to using the WEKA program, as material for consideration of accuracy by seeing the size of the error.

3.6 Project Report

This research report produces several testing and conclusions. So that this report can be used as a reference source for further research. The conclusion of this study also answers the questions that come from the scope.