

# CHAPTER 1

## INTRODUCTION

### 1.1. Background

The use of statistics in processing research data affects the success rate of analysis of a study. Research in the fields of science and management that requires statistical calculations, will produce data that is close to correct if it considers the data analysis procedures used. In predicting and measuring the value of the influence of free variables on bound variables can be used in regression.

Regression analysis or test is a study of the relationship between one variable, namely a free variable, with one or more variables to a bound variable. If there is only one free variable, the regression analysis is called simple regression. This simple linear regression analysis is often used in daily needs in various areas of life.

So that, simple linear regression analysis is needed by various users in any field but is constrained by the form of devices or applications that do not support it in simple form because it still relies on complex statistical programs and is still commercial

This study focused on discussing simple linear regression in helping to predict any value in daily needs. This study aims to help users or users in determining the prediction of the value they want in the form of a simple program. This research produced a simple linear regression analysis program that can be used to predict values according to the user's wishes.

### 1.2. Problem Formulation

From the background of the problem above, we can formulate the problems as follows:

1. How does that simple linear regression test work in predicting a value.
2. How the implementation of a simple linear regression test is poured into a form of program

3. How to calculate Mean Absolute Error prediction of a simple linear regression test in this study.

### **1.3. Scope**

This research has limitations, including:

1. Research data focuses only on x and y (simple linear regression)
2. This research dataset is only number or numerical
3. This research only uses SQL programs .

### **1.4. Objective**

The objectives of this study are:

1. Knowing how simple linear regression works in predicting a value
2. Knowing the implementation of a simple linear regression test is poured in a SQL program
3. Knowing the result of the Mean Absolute Error calculation prediction of a simple linear regression test in this study.