

# CHAPTER I

## INTRODUCTION

### *1.1 Backgrounds*

This application can be used for people who do not know how the rules of knight chess position while playing chess. This project uses Javascript HTML5 programming and PHP, Arrays 2 dimensional as data structure to save the value in a chessboard. The results of this project is the analysis of simulation steps moving knight in chess and save the knight in the number of steps in a txt file.

### *1.2 Scope*

This project is using HTML5 Javascript programming and PHP, array 2 dimension as a data structure.

#### **The things that can be done in this project are:**

1. Display chess board in canvas
2. Display knight inside chess board
3. Random moving knight in chess board
4. Analysis moving knight
5. Save analysis in txt file

**Things that can not be done in this project are:**

1. Knight can't run automatically on a chessboard, still depend on the button
2. Movement of the knight is not using smooth animation



### ***1.3 Objective***

This application was developed to understand the rules of riding position knight in the game of chess. Chessboard made using HTML5 canvas and modulo as a determinant of color on a chessboard. In chessboard given 2 dimensional array data structure to store the value in each box. After a 2 dimensional array completed, each index in the array is assigned the value 0. If the knight moves, the box already passed knight filled the value, and the value of the array function to the barrier so that the knight does not step in the same box.

Displacement knight randomly determined by the rules of "L". every rule "L" has a different displacement positions. knight displacement can be up, down, right, left, upper right, upper left, bottom right, bottom left. Each box has passed a knight can't be bypassed again, if the knight can't move anymore, the number of knight displacement stored in a txt file and position the horse back to beginning position.