CHAPTER 3
RESEARCH METHODOLOGY

1. Literature study

The first step in the work of this program is to look for some references from some journals about the sorting algorithm that is on the website. After all the required journals are learned, a sorting algorithm analysis will be performed. In this paper the shell and exchange sort method is used as an analysis material. Here the analysis will be done to know which sorting method has better performance. The sorting performance can be seen from the speed and efficiency in completing a sequence.

2. Design

The design of the program consists of three steps that must be done. First by drawing objects using HTML5 canvas. The object drawn in the form of a boxes, because the sorting algorithm must use a boxes object for the sorting process. How to draw a box object by setting the coordinate point X, the coordinate point Y, and the size of the box object itself.

Both add random animations to the box using javascript animation. Animation here is only used when random by sliding boxes one with other boxes according to boxes input. Third make the form input box, random button, clear, and sortingannya own shell and exchange sort. The command button is created using the HTML form command.

3. Implementation

The work of this program is done by writing a list of programs in a text editor, which is used here is Sublime Text 3 and web browser to see the visualization results used for this is chrome.
4. Testing

Once everything is done the thing that needs to be done is to test this program. The purpose of this test is to find out if there are any errors in this program. If an error appears then the fixing the program must be done to reduce or even eliminate the errors from this program.