**Clipping Line**

**Experiment procedure documentation**

**Introduction :**

This document contains the stepwise instructions and supporting images to run this experiment and understand the working of the Cohen Sutherland algorithm through it.

**Instructions:**

1. To open the webpage , run LineClippinng.html on your preferred browser.

**A screenshot of a social media post

Description automatically generated**

The user can run the experiment with the default values, or enter their own set of coordinates , for the bounding rectangle( our viewport) and for the line to be clipped.

Maximum Permissible value for each is 600 . If the user tries to enter a value greater than 600 , the values will be set to 600.

1. To start the experiment, click on the “**START**” button.

This will first generate an alert

A screenshot of a cell phone

Description automatically generated

**3.** Click on “**OK**”

This will now draw the bounding rectangle and the Line to be clipped .

A Grid will also be generated which denotes the 9 regions the canvas is divided into , which correspondingly have their own out-codes.

A screenshot of a social media post

Description automatically generated

**4.** Click on “NEXT STEP” for the algorithm to proceed and iteratively clip the line w.r.t each edge of the bounding rectangle starting from the left and moving clockwise.

A screenshot of a social media post

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**5.**Once the Line is accepted, it will be highlighted in red and its final coordinates will be displayed on the left.

A screenshot of a cell phone

Description automatically generated

The above image is the result of the iterations shown in point no.4

The Line has been clipped and the new coordinates have been filled on the canvas along with their display on the left side of the webpage.

**7.**If the line is not accepted , there will be an alert generated along with a message on the left.

A screenshot of a cell phone

Description automatically generated

**8.** There is also an added functionality for viewing a multiple line clipping animation which generated random lines ,shadows out the clipped part and highlights the accepted part of the line by the bounding rectangle , in black.

A picture containing sky, building

Description automatically generated

A screenshot of a cell phone

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This is how the user guide looks.

A screenshot of a social media post

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**Please press “START” to begin the experiment .**

**You can enter your own values and run the experiment.**

**The user guide has all the steps and explanation of the algorithm and how it has been implemented in Javascript in an iterative fashion.**