## ASSIGNMENT-5 REPORT

**Description:** - Hierarchical data visualization using treemaps: on one of the datasets on <a href="http://data.gov.in">http://data.gov.in</a>.

**Data Set Information:-** The data set is export – import from 1949 – 2013 is given.

**Data Processing:** - For each year the information regarding export(with in cludeing re-exports ) had been taken in the dataTable. Later it can be used by creating object of DataTable class.

## Visualization Algorithm And Implemenatation: -

## **Tree Mapping:-**

Treemaps display hierarchical (tree-structured) data as a set of nested rectangles. Each branch of the tree is given a rectangle, which is then tiled with smaller rectangles representing sub-branches. A leaf node's rectangle has an area proportional to a specified dimension on the data. Often the leaf nodes are colored to show a separate dimension of data. When the color and size dimensions are correlated in some way with the tree structure, one can often easily see patterns that would be difficult to spot in other ways, such as if a certain color is particularly relevant. A second advantage of treemaps is that, by construction, they make efficient use of space. As a result, they can legibly display thousands of items on the screen simultaneously.

In the given problem the information regarding export(with in cludeing re-exports) mapped to area of rectangles and color is coded according to the rate of change of export. If the rate of change is negative it is represented by red, < 5 then green else blue.

## **Insights:-**

- 1. It represents that in the starting the import very less. Its incccreasing year by year gradually.
- 2. Color Mapping is implemend using heatMap. It represents some years where suddenly rate of exports is decreased.