Ex.No:13 Date:	DATA VISUALIZATION USING PIE CHART

AIM:

To visualize data using plotty framework.

PROCEDURE:

1. In R the pie chart is created using the **pie()** function which takes positive numbers as a vector input.
2. The additional parameters are used to control labels, color, title etc.
3. The basic syntax for creating a pie-chart using the R is −

```
i. pie(x, labels, radius, main, col, clockwise)
```

4. Following is the description of the parameters used −
   a. 4.a **x** is a vector containing the numeric values used in the pie chart.
   b. 4.b **labels** is used to give description to the slices.
   c. 4.c **radius** indicates the radius of the circle of the pie chart.(value between −1 and +1).
   d. 4.d **main** indicates the title of the chart.
   e. 4.e **col** indicates the color palette.
   f. 4.f **clockwise** is a logical value indicating if the slices are drawn clockwise or anti clockwise.
5. We will use parameter **main** to add a title to the chart and another parameter is **col** which will make use of rainbow colour pallet while drawing the chart. The length of the pallet should be same as the number of values we have for the chart. Hence we use length(x).

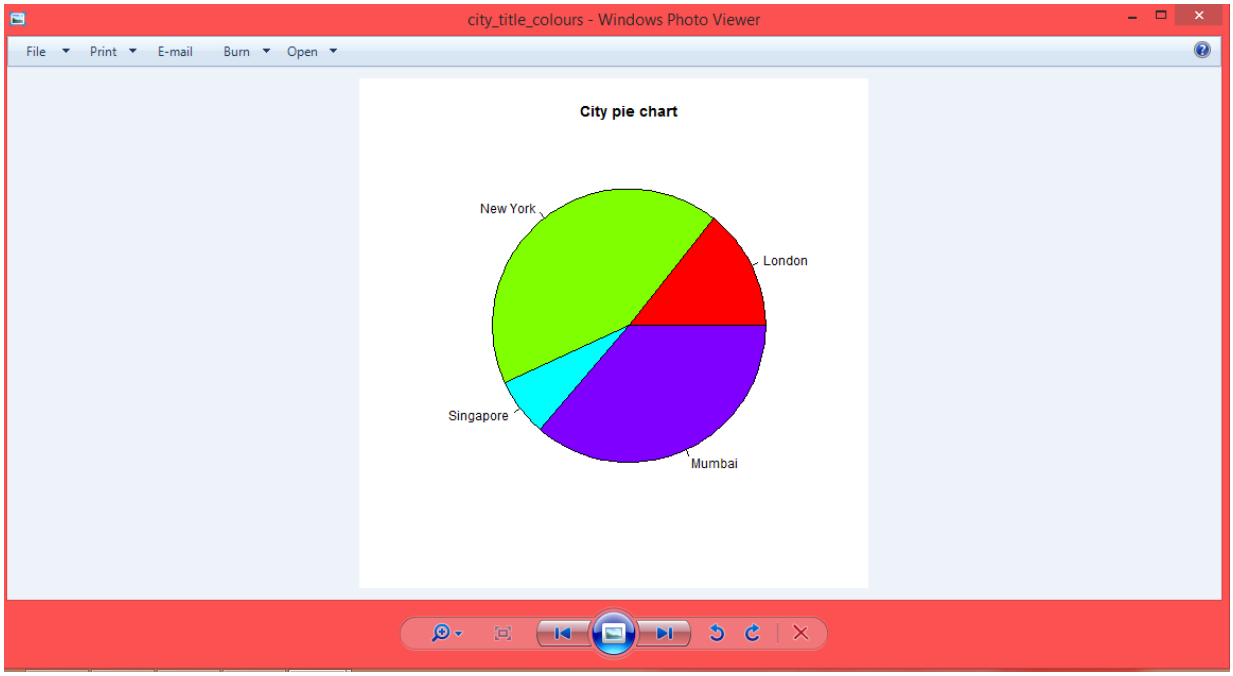
PROGRAM:

```
# Create data for the graph.
x <- c(21, 62, 10, 53)
labels<- c("London", "New York", "Singapore", "Mumbai")

# Give the chart file a name.
png(file = "city_title_colours.jpg")

# Plot the chart with title and rainbow color pallet.
pie(x, labels, main = "City pie chart", col = rainbow(length(x)))

# Save the file.
dev.off()
```

RESULT:

Thus the data is visualized using plotty framework.

OUTPUT:


city_title_colours - Windows Photo Viewer
File
Print
E-mail
Burn
Open
City pie chart
New York
London
Singapore
Mumbai