Experiment No. : 01 Date: 12/11/24 Page No.: 1

Name of the Experiment : Gantt - Timeline chart.

1. Generating and Interactive Gantt - Timeline chart by redefining to the new data graph.

=>
```
library (plotrix)
library (lubridate)
tasks <- list(
  labels = c("research proposal", "literature survey",
             "data collection");
  starts = ymd("2023-01-12", "2023-02-12"
               "2023-02-26"),
  ends = ymd ("2023-02-12", "2023-04-12", 2023-05-01),

  priorities. = c(1,2,3)
)
vgrid pos <- ymd ("2023-01-12", "2023-02-12",
                  "2023-02-26")

vgrid lab <- c("Jan", "Feb", "Mar")

gantt. chart (tasks, vgridpos = vgrid pos, vgridlab =
              vgrid lab, main = "My gantt chart")

task colors = c("red", "pink", "blue"), border. col = "black")
```

Experiment No. : 02 Date: 12/11/21 Page No.: 2

Name of the Experiment : 3D scatterplot.

2. Construct a 3D scatterplot iris data set

=>
```
library (scatterplot 3d)
data (iris)
head (iris)
colors <- c("#999999", "#E69F00", "#56B4E9")
colors <- colors [as. numeric (iris $species)]
scatterplot 3d (iris [1:3], pch =16, color = colors,
                grid = TRUE, box = TRUE)
```

Experiment No. : 03 Date: 19/11/2024 Page No.: 03

Name of the Experiment : 3D histograms

3. Project the 3D histograms with the z-variable as well as while generating the data for the second y-values.

```
x = y = seq(-4, 4, by = 0.5
```

```
library(plot3D)
x = seq(-1, 1, by = 0.5)
y = seq(-1, 1, by = 0.5)

zval = c(20.8, 22.3, 22.7, 11.1, 20.1, 2.2,
         6.7, 14.1, 6.6, 24.7, 15.7, 15.1, 9.9,
         9.3, 14.7, 8.0, 14.3, 5.1, 6.5, 19.7
         21.9, 11.2, 11.6, 3.9, 14.8)

z = matrix(zval, nrow=5, ncol=5, bycol = TRUE)
hist3D(x, y, z,
       zlim = c(0, 25),
       theta = 40,
       phi = 40,
       axes = TRUE,
       label = TRUE,
       nticks = 5,
       ticktype = "detailed",
       space = 0.5,
       lighting = TRUE,
       light = "diffuse",
       shade = 0.5)
```

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Experiment No. : 04 Date: 26/11/2024 Page No.: 04

Name of the Experiment : Hexbin plot

04. Creating a Hexbin plot by generating a fake data set and generating thousand normally distributed random numbers.

```
library (hexbin)
set.seed (355)
x = rnorm (1000)
y = rnorm (1000)
bins = hexbin (x, y)
plot (bins)
plot (bins, border = TRUE)
plot (bins, border = "red")
smb = smooth.hexbin (bins)
plot (smb)
```

Experiment No. : 05 Date: 26/11/2024 Page No.: 05

Name of the Experiment :

05. Considering the inogral speaches given by President obama . and formal president george Push , two clouds provide us with a great contract on how these individuals, Pessue the nation & its citizen genesate a compasison cloud to eliminate the stock words and project the document matters.

```
install . packages (c("wordcloud", "RColor Brewer"))
library (word cloud)
Library (RColor Brewer)
Pal <- brewer. pal (10, "RdGy")
wordcloud (words = c("inequality", "law", "policy",
          "unemploy", "job", "economy", "democracy",
          "republicans", "challange", "congress", "america",
          "growth")
freq = c (26, 9, 24, 2, 7, 30, 26, 1, 4, 3, 9, 57, 9),
min . freq % = 2,
cd = Pal,
random. order = FALSE).
```

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