STATISTICAL METHODS IN DATA MINING

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Plotting in R

- ✓ Data Visualization Examples in R
- ✓ Execute the following commands one by one in R (or R Studio)

Exercises

```
› peynir=c(69,198,42,97,40)
› pie(peynir)
› isim=c("tulum","beyaz","lor","cokelek","kasar")
› pie(peynir, labels=isim)
› yuzde=round(peynir/sum(peynir)*100)
› pie(peynir, labels = paste(isim,yuzde,"%"))
› barplot(peynir)
› barplot(peynir,names.arg = isim)
```

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```
› data(iris) # Loading iris data...
› iris = iris[sample(nrow(iris)),] # shuffle data
› summary (iris)
› a = iris$Sepal.Width
› Mean, sd, var, min, max, median, range, quantile
› hist(a)
› hist(a, breaks=5)
› hist(a, breaks=10, freq=FALSE)
› x = seq(2, 5, 0.1)
› curve(dnorm(x, mean(a), sd(a)), add=TRUE, lw=6, col="red")
```

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```
› data(iris) # Loading iris data...
› iris = iris[sample(nrow(iris)),] # shuffle data
› summary (iris)
› a = iris$Sepal.Width
› stem(a)
› stem(a, scale=0.5)
› boxplot(a)
› boxplot(a, horizontal=TRUE)
› boxplot(iris[,1:2], horizontal=TRUE)
```

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```
› data(iris) # Loading iris data...
› iris = iris[sample(nrow(iris)),] # shuffle data
› a = iris$Sepal.Width
› plot(a)
› plot(iris$Sepal.Length) # makes any sense??
› plot(iris$Petal.Length)
› plot(iris$Petal.Width) # still no sense? Can you interpret?
› # Let's specify Species by colors
› plot(iris$Petal.Width,  col=iris$Species) # What about now?
```

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```
› # changing x axis. Scatter plot of Petal.Width vs Petal.Length
› plot(iris$Petal.Width, iris$Petal.Length, col=iris$Species)
› # Rotate. Scatter plot of Petal.Length vs Petal.Width
› plot(iris$Petal. Length, iris$Petal.Width, col=iris$Species)
› # better? Now focusing on data for Species "setosa"
› Setosa = iris[iris$Species=="setosa",]
› plot(Setosa$Petal.Length, Setosa$Petal.Width)
```