Classification Algorithm in R programming (rainfall):

```r
# Get the data points in form of a R vector.

rainfall <-
c(799,1174.8,865.1,1334.6,635.4,918.5,685.5,998.6,784.2,985,882.8,1071)

# Convert it to a time series object.

rainfall.timeseries <- ts(rainfall,start = c(2012,1),frequency = 12)

# Print the timeseries data.

print(rainfall.timeseries)

# Give the chart file a name.

png(file = "rainfall.png")

# Plot a graph of the time series.

plot(rainfall.timeseries)

# Save the file.

dev.off()

plot(rainfall.timeseries)
```

k-means clustering using R:

```r
 newiris<-iris

newiris$Species<-NULL

(kc<-kmeans(newiris,3))

table(iris$Species,kc$cluster)

plot(newiris[c("Sepal.Length","Sepal.Width")],col=kc$cluster)
```

Prediction using Linear Regression:

```r
x <- c(151, 174, 138, 186, 128, 136, 179, 163, 152, 131)

y <- c(63, 81, 56, 91, 47, 57, 76, 72, 62, 48)

# Apply the lm() function.

relation <- lm(y~x)

print(relation)

print(summary(relation))

# Find weight of a person with height 170.
```

```r
a <- data.frame(x = 170)
result <- predict(relation,a)
print(result)
# Plot the chart.
plot(y,x,col = "blue",main = "Height & Weight Regression",
abline(lm(x~y)),cex = 1.3,pch = 16,xlab = "Weight in Kg",ylab = "Height in
cm")
```

Decision tree:

```r
# Load the party package. It will automatically load other
# dependent packages.
library(party)
# Print some records from data set readingSkills.
print(head(readingSkills))
# Create the input data frame.
input.dat <- readingSkills[c(1:105),]
# Give the chart file a name.
png(file = "decision_tree.png")
# Create the tree.
output.tree <- ctree(
nativeSpeaker ~ age + shoeSize + score,data = input.dat)
# Plot the tree.
plot(output.tree)
# Save the file.
dev.off()
plot(output.tree)
```