# Experiment-2.1

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## Semester: 6th Date of Performance: 07thApr 2023 Subject Name: Data Mining Subject Code: 20CSP- 351

**Aim** – To perform the classification by decision tree induction using WEKA tools.

## Objective-

* Represent the reading of file using R studio
* Displaying the pattern on RWeka, partykit and caTools Tool.
* Demonstration of Decision Tree.

**Script and Output-**

library(RWeka)

library(partykit)

library(caTools)

iris\_data=iris

str(iris\_data)

summary(iris\_data)

spl=sample.split(iris\_data,SplitRatio = 0.7)

dataTrain=subset(iris\_data,spl==TRUE)

dataTest=subset(iris\_data,spl==FALSE)

m1<-J48 (Species~.,dataTrain)

dataTestPred<- predict(m1,newdata=dataTest)

table\_matrix<- table(dataTest$Species,dataTestPred)

print(table\_matrix)

accuracy\_test <- sum(diag(table\_matrix))/sum(table\_matrix)

cat("Test Accuracy is",accuracy\_test)

pdf("Iris\_decision\_plot.pdf",paper = "a4")

plot(m1,type="simple")

dev.off()

**Output-**



