SDL\_Assignment no 5

# VECTOR

color<-c('red','green','blue')

print(color)

print(class(color))

# LIST

list1<-list(c(2,5,8),21,89)

print(list1)

# MATRIX

Mat<-matrix(c('a','v','e','s','y','z'),nrow=2,ncol=3,byrow = TRUE)

print(Mat)

# ARRAY

arr<-array(c('green','yellow'),dim=c(3,3,8))

print(arr)

# FACTORS

color<-c('green','red','yellow','red','blue','green','red')

factor\_color<-factor(color)

print(factor\_color)

print(color)

print(nlevels(factor\_color))

# DATA FRAMES

DF<-data.frame()

DF<-data.frame(gender=c('Male','Female','male'),height=c(158,120,165),weight=c(40,35,48),age=c(18,16,15))

print(DF)

# STRING

St<-"Hello! We are learning R programming!!..."

print(St)

print(color)

# GRAPH

data(cars)

cars

plot(cars$speed,cars$dist,,xlab="Speed",ylab = "Distance")

# PIE CHART

pie(cars$speed,cars$dist,,xlab="Speed",ylab = "Distance")

# BAR GRAPH

barplot(cars$speed,cars$dist,xlab = "Speed",ylab = "Dist",main="CARS")

# BOX PLOT

boxplot(cars$speed,cars$dist,xlab = "Speed",ylab = "Dist",main="CARS")

# HISTOGRAM

hist(cars$speed,col="red",ylim = c(0,80))

# LINE GRAPH

lines(cars,type="o",pch=22,lty=2,col="red")

title(main="CARs",col.main="red",font.main=4)

# DOT CHART

dotchart(t(

cars

))

# CONTROL STRUCTURE:

# 1.IF-ELSE:

x <- -5

if(x > 0)

{

print("Non Negative no")

}else

{

print("Negative no")

}

# VECTORIZATION WITH IF-ELSE:

ifelse(x<=10,"x less than 10","x greater than 10")

# FOR LOOP:

y <-c ("apple","Banana","Mango")

for (x in 1:1) {

print(y[x])

}

# WHILE LOOP:

a<-1

while(a<10)

{

print(a)

if(a==5)

break

a=a+1

}

# NEXT

x<-1

while (x<5) {

x<-x+1;

if(x==3)

next;

print(x);

}

# REPEAT LOOP:

x <- 1

repeat {

print(x)

x = x+1

if (x == 6){

break

}

}