```r
#Integer
i=12

#Double
d=2.3

#String
s='Hello World'

#Boolean
b=TRUE

#Vector
v=c(98,99,100)
v

#Slice
v[1:2]

#Create a vector from a range of integers
r=(1:10)
print(r)

#Add a new item to the end of a vector
v=c(1,2,3)
v[4]=4
v

#Create a 2 rows, 3 columns matrix with named headings
data=c(1,2,3,4,5,6)
headings=list(NULL, c("a","b","c"))
m=matrix(data, nrow=2, ncol=3, byrow=TRUE, dimnames=headings)
m
m[1,]
m[,1]

#Create a list of named items
a=list(aa=1, bb=2, cc=3)
a

#Add a named item to a list
a$dd=4
a

#Create a new data frame
years=c(1980, 1985, 1990)
scores=c(43,44,83)
df=data.frame(years, scores)
df[,1]
df$years
```

```r
#If-Then-Else
a=66
if(a>55){
  print("a is more than 55")
} else {
  print ("a is less than or equal to 55")
}

#For Loop
mylist=c(55,66,77,88,99)
for (value in mylist){
  print(value)
}

#While Loop
a=100
while(a<500){
  a=a+100
}
a

#Function
numbers=c(1,2,3,4,5,6)
mean(numbers)
help(mean)
example(mean)
args(mean)
mysum=function(a,b,c){
  sum=a+b+c
  return(sum)
}
mysum(1,2,3)

#Loading Data
filename="iris.csv"
dataset=read.csv(filename, header=FALSE)
head(dataset)

#Load data from CSV URL
library(RCurl)
urlfile ='https://archive.ics.uci.edu/ml/machine-learning-databases/
iris/iris.data'
downloaded=getURL(urlfile, ssl.verifypeer=FALSE)
connect=textConnection(downloaded)
dataset=read.csv(connect, header=FALSE)
head(datase)

#Dimensions of Data
library(mlbench)
```

```r
data("PimaIndiansDiabetes")
dim(PimaIndiansDiabetes)

#Data Types
library(mlbench)
data("BostonHousing")
sapply(BostonHousing, class)
typeof(BostonHousing$crim)

#Data Distribution
library(mlbench)
data("PimaIndiansDiabetes")
y=PimaIndiansDiabetes$diabetes
cbind(freq=table(y), percentage=prop.table(table(y))*100)

#Data Summary
data(iris)
summary(iris)

#Standard deviation
library(mlbench)
data("PimaIndiansDiabetes")
sapply(PimaIndiansDiabetes[,1:8],sd)

#Skewness
library(mlbench)
library(e1071)
data("PimaIndiansDiabetes")
skew=apply(PimaIndiansDiabetes[,1:8],2,skewness)
print(skew)
```