1. The following methods can be applied to determine whether an object belongs in S3 or S4:   
   Use is to find out if an object is or is not an S4 object.!isS4(x) & object(x).  
   Go to sloop::otype(x) to get the object type. If it returns "S3", then it is linked to S3.   
     
   S3 objects have a class attribute; basic objects do not.
2. To find an object's base type, use typeof(x). As an illustration,

      typeof(1:10) yields "integer".

      mtcars.typeof() yields "list".

1. A generic function is a function that creates a common interface for related functions. It allows you to invoke methods based on the class of the supplied object.   
     
   S3 generic functions are non-formal; they use a special type of function called a generic function to decide which method to invoke.   
   In S4, generic functions have formal class definitions and support multiple dispatch.

S3:

Informal system.

No formal class definitions.

Methods belong to generic functions.

Objects can belong to multiple classes.

S4:

Formal system.

Has formal class definitions.

Methods are explicitly defined.

Objects belong to a single class.

1. Here are a few condensed examples:

**S3:**

# Create an S3 object

s <- list(name = "Krishna", age = 23, GPA = 3.5)

class(s) <- "student"

**S4:**

# Create an S4 class definition

setClass("student", slots = c(name = "character", age = "numeric", GPA = "numeric"))

# Create an S4 object

s4 <- new("student", name = "Krishna", age = 23, GPA = 3.5)