CheatSheet - R basics

Topic	Syntax	Description	Example
R Persistence - Write	`saveRDS()`	`saveRDS` function writes a single R object to a file.	`saveRDS(movies, "movies.rds")`
R Persistence - Read	`readRDS()`	`readRDS` function reads the file.	`saveRDS(movies, "movies.rds") movies <- readRDS("movies.rds")`
Lists	`list(num1, num2, num3)`	A list is a sequenced collection of different objects of R, like vectors, numbers, characters, other lists as well, and so on. You can consider a list as a container of correlated information, well structured and easy to read.	`movie = list("Toy Story", "Akira", "The Breakfast Club")`
Access Lists	`list_variable_name[]`	You can access the list items by referring to its index number, inside brackets. The first item has index 1, the second item has index 2, and so on.	`movie<-list("Toy Story", 1995, c("Animation", "Adventure", "Comedy")) movie[2]`
Named lists	`my_list = list(name1 = your_comp1, name2 = your_comp2)`	Named list can also be created using list() function to specify the names of elements after defining the list.	`movie = list(name = "Toy Story", year = 1995, genre = c("animation", "adventure", "comedy"))`
Adding a new element in list	`append(list_name,new_element)`	To add an item to the end of the list, use the append() function	`append(movie, "horror")`
Adding a new element in a named list	`list_name[[new_name]]=value`	To add an item to the named list, we give the name which will be used as a key or index and the value.	`movie[['director']] = "John Lasseter"`
Change Item Value in list	`my_list[index] = value`	To change the value of a specific item, refer to the index number. Index starts from 0.	`movie[1] = "Akira"`
Remove List Items	`my_list = my_list[-index]`	You can also remove list items by specifying the index	`movie[-1]`

prefixed with minus sign.

Concatenating lists	`mylist_concatenated = c(list1, list2)`	Concatenation is the proccess of puting things together.	`movie1<-list("Toy Story", 1995, c("Animation", "Adventure", "Comedy")) movie2<-list("Akira", 1998, c("Animation", "Adventure", "Comedy")) newlist = c[movie1, movie2]`
Data Frames	`data.frame()`	data.frame creates a dataframe with the parameters passed. A dataframe is displayed as a table	`movies <- data.frame(name = c("Toy Story", "Akira", "The Breakfast Club", "The Artist", "Modern Times", "Fight Club", "City of God", "The Untouchables"), year = c(1995, 1998, 1985, 2011, 1936, 1999, 2002, 1987), stringsAsFactors=F)`
str()	`str(object, …)`	str() function is used for compactly displaying the internal structure of a R object as a string.	`str(movies)`
class()	`class(object)`	class() function returns the data type of a variable.	`class(movies$year)`
head()	`head(object)`	head() Function returns the first 6 rows of the dataset.	`head(movies)`
tail()	`tail(object)`	tail() Function returns the last 6 rows of the dataset.	`tail(movies)`
rbind()	`rbind(object, object, ...)`	`rbind` function combines objects as rows.	`rbind(movies, c(name="Dr. Strangelove", year=1964, length=94))`

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Changelog

Date	Version	Changed by	Change Description
2023-05-10	1.1	Eric Hao & Vladislav Boyko	Updated Page Frames
2020-08-31	1.0	Malika Singla	Initial Version