R語言筆記

Combine Vector to Matrix

# Box office Star Wars (in millions!)

new\_hope <- c(460.998, 314.4)

empire\_strikes <- c(290.475, 247.900)

return\_jedi <- c(309.306, 165.8)

# Create box\_office

box\_office <- c(new\_hope, empire\_strikes, return\_jedi)

# Construct star\_wars\_matrix

star\_wars\_matrix <- matrix(box\_office, nrow = 3, byrow = TRUE)

star\_wars\_matrix

Naming a matrix

# Box office Star Wars (in millions!)

new\_hope <- c(460.998, 314.4)

empire\_strikes <- c(290.475, 247.900)

return\_jedi <- c(309.306, 165.8)

# Construct matrix

star\_wars\_matrix <- matrix(c(new\_hope, empire\_strikes, return\_jedi), nrow = 3, byrow =

TRUE)

# Vectors region and titles, used for naming

region <- c("US", "non-US")

titles <- c("A New Hope", "The Empire Strikes Back", "Return of the Jedi")

# Name the columns with region

colnames(star\_wars\_matrix) <- region

# Name the rows with titles

rownames(star\_wars\_matrix) <- titles

# Print out star\_wars\_matrix

star\_wars\_matrix

Matrix calculation

# Construct star\_wars\_matrix

box\_office <- c(460.998, 314.4, 290.475, 247.900, 309.306, 165.8)

star\_wars\_matrix <- matrix(box\_office, nrow = 3, byrow = TRUE,

dimnames = list(

c("A New Hope", "The Empire Strikes Back", "Return of the Jedi"),

c("US", "non-US")

)

)

# Calculate worldwide box office figures

worldwide\_vector <- rowSums(star\_wars\_matrix)

worldwide\_vector

Adding a column ➔Matrix

# Construct star\_wars\_matrix

box\_office <- c(460.998, 314.4, 290.475, 247.900, 309.306, 165.8)

star\_wars\_matrix <- matrix(box\_office, nrow = 3, byrow = TRUE,

dimnames = list(c("A New Hope", "The Empire Strikes Back", "Return of the Jedi"), c("US", "non-US")))

star\_wars\_matrix

# The worldwide box office figures

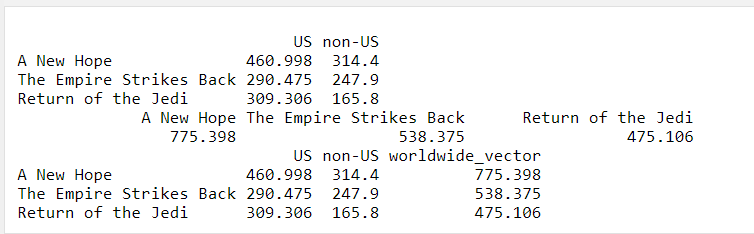
worldwide\_vector <- rowSums(star\_wars\_matrix)

worldwide\_vector

# Bind the new variable worldwide\_vector as a column to star\_wars\_matrix

all\_wars\_matrix <- cbind(star\_wars\_matrix, worldwide\_vector)

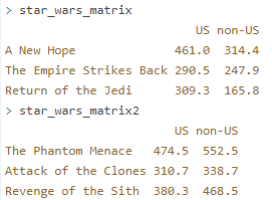
all\_wars\_matrix



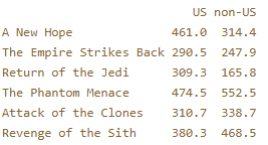
Adding a row ➔Matrix

#

star\_wars\_matrix



star\_wars\_matrix2



# Combine both Star Wars trilogies in one matrix

all\_wars\_matrix <- rbind(star\_wars\_matrix, star\_wars\_matrix2)

all\_wars\_matrix

Selection of matrix elements

all\_wars\_matrix[1,2] selects the element at the first row and second

column.

all\_wars\_matrix[1:3,1:2] results in a matrix with the data on the rows 1,

2, 3 and columns 1, 2.

