



# LAB WEEK 8

SEP 2025 SEMESTER

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BACHELOR OF COMPUTER SCIENCE

DATA SCIENCE

TEB2164

## Contents

Code.......3

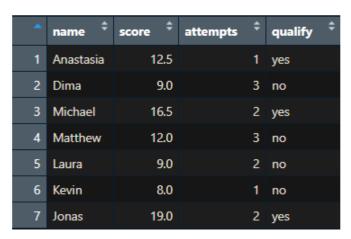
### Code

#### **Activity 1**

```
#Activity 1
```

```
quiz.data <- data.frame(
  name = c("Anastasia", "Dima", "Michael", "Matthew", "Laura", "Kevin", "Jonas"),
  score = c(12.5, 9.0, 16.5, 12.0, 9.0, 8.0, 19.0),
  attempts = c(1, 3, 2, 3, 2, 1, 2)
)</pre>
```

View(quiz.data)



#### **Activity 2**

#Activity 2

```
#Add qualify column
quiz.data$qualify <- c("yes", "no", "yes", "no", "no", "no", "yes")
quiz.data.new.column <- quiz.data
print(quiz.data.new.column)</pre>
```

View(quiz.data.new.column)

^	name ‡	score ‡	attempts	<b>‡</b>	qualify <sup>‡</sup>
1	Anastasia	12.5		1	yes
2	Dima	9.0		3	no
3	Michael	16.5		2	yes
4	Matthew	12.0		3	no
5	Laura	9.0		2	no
6	Kevin	8.0		1	no
7	Jonas	19.0		2	yes

#### **Activity 3**

```
#Activity 3

new.row <- data.frame(
   name = c("Emily"),
   score = c(14.5),
   attempts = c(1),
   qualify = c("yes")
)

#Bind
quiz.data.new.row <- rbind(quiz.data.new.column, new.row)
print(quiz.data.new.row)</pre>
```

•	name ‡	score ‡	attempts ‡	qualify <sup>‡</sup>
1	Anastasia	12.5	1	yes
2	Dima	9.0	3	no
3	Michael	16.5	2	yes
4	Matthew	12.0	3	no
5	Laura	9.0	2	no
6	Kevin	8.0	1	no
7	Jonas	19.0	2	yes
8	Emily	14.5	1	yes

# Activity 4 #Activity 4

```
#Structure
str(quiz.data.new.row)

#Statistical Summary
print(summary(quiz.data.new.row))

#Dimensions
print(dim(quiz.data.new.row))
print(nrow(quiz.data.new.row))
print(ncol(quiz.data.new.row))
```

```
> str(quiz.data.new.row)
'data.frame': 8 obs. of 4 variables:
   $ name : chr "Anastasia" "Dima" "Michael" "Matthew" ...
$ score : num 12.5 9 16.5 12 9 8 19 14.5
$ attempts: num 1 3 2 3 2 1 2 1
$ qualify : chr "yes" "no" "yes" "no" ...
```

```
name
                       score
                                       attempts
                                                       qualify
                          : 8.00
                                            :1.000
Length:8
                   Min.
                                    Min.
                                                     Length:8
                   1st Qu.: 9.00
                                    1st Qu.:1.000
Class :character
                                                     Class :character
Mode
      :character
                    Median :12.25
                                    Median :2.000
                                                     Mode
                                                           :character
                    Mean
                           :12.56
                                    Mean
                                           :1.875
                    3rd Qu.:15.00
                                    3rd Qu.:2.250
                           :19.00
                                    Max.
                                            :3.000
                    Max.
```

```
> print(dim(quiz.data.new.row))
[1] 8 4
> print(nrow(quiz.data.new.row))
[1] 8
> print(ncol(quiz.data.new.row))
[1] 4
```

My insight and observation of the data set is the dimension with row 8, and 4 columns. Each of the statistical analysis of all of column values have been calculated min, 1<sup>st</sup> and 3<sup>rd</sup> quartile, median, mean, and max.

