

Business Analytics Homework1Part2

Code ▾

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Set the sub folder (where you have saved the files) as the working directory: Click Session → Set Working Directory → Choose Directory ... and select he sub folder where you saved the downloaded file(s) and click on OK.

Formatting in R Markdowns

Creates a header (need the space between the # and first character/text)

- creates a bullet point (dash followed by a tab)

bolds the text

Question 1: (Starting with the first chunk) Complete the following basic operations:

- Create/load an object called School and assign the value "Loyola" to School.
- Create/load an object called Freshman and assign the value 2985 (do not use a comma in 2985)
- Create/load an object called Soph and assign the value 3101 (do not use a comma in 3101)
- Create/load an object called Jr and assign the value 2848 (do not use a comma in 2848)
- Create/load an object called Senior and assign the value 3250 (do not use a comma in 3250)

```
School = "Loyola"
Freshman = 2985
Soph = 3101
Jr = 2848
Senior = 3250
```

Question 2: Displaying the values of variable objects (remember, just type the object name and run the chunk)

- Display the value assigned to the object School
- Display the value assigned to the object Freshman
- Display the value assigned to the object Soph
- Display the value assigned to the object Jr
- Display the value assigned to the object Senior

```
School
```

```
## [1] "Loyola"
```

```
Freshman
```

```
## [1] 2985
```

```
Soph
```

```
## [1] 3101
```

```
Jr
```

```
## [1] 2848
```

```
Senior
```

```
## [1] 3250
```

Question 3: Basic calculations with objects (remember, just use R as a calculator: + , -, *, /)

- Display the value of Freshman + Soph + Jr + Senior (use the object names within the math problem, the values will be passed to get the result)
- Create/load an object called Enrolled and assign the value of Freshman + Soph + Jr + Senior (use the object names within the math problem, the values will be passed to get the result)

```
Freshman + Soph + Jr + Senior
```

```
## [1] 12184
```

```
Enrolled = Freshman + Soph + Jr + Senior
Enrolled
```

```
## [1] 12184
```

Question 4: Create a vector for the following (vectors use c() to combine different values into a one-dimensional object)

- Note: Vectors are loaded using the c() function. Separate each value with a comma. Remember, do not put quotes "" around numbers. For any text values, surround each value with quotes. Example: Name = c("Kaitlyn", "Hoffmann")
- Create/load an object called Grades with the values 86, 92, 99
- Create/load an object called Ages with the values 19, 26, 20
- Create/load an object called Class with the values Jr, Sr, Sr

```
Grades = c(86,92,99)
Ages = c(19,26,20)
Class = c("Jr","Sr","Sr")
#This question had seniors doubled on the pdf. I do not know if this was intentional or not but I have followed the procedure as it was listed
```

Question 5: Displaying the values of vector objects

- Display the values assigned to the object Grades
- Display the values assigned to the object Ages
- Display the values assigned to the object Class

```
Grades
```

```
## [1] 86 92 99
```

```
Ages
```

```
## [1] 19 26 20
```

```
Class
```

```
## [1] "Jr" "Sr" "Sr"
```

ADD THE QUESTIONS BELOW AND A CHUNK FOLLOWING EACH TO THE HW1P2.RMD

Question 6: Calculate the following using the vector objects and summary calculations (mean, median, sd, etc.)

- Display the average (mean) of Grades – example: mean(Grades)
- Display the average (mean) of Ages
- Display the standard deviation (sd) of Grades

```
mean(Grades)
```

```
## [1] 92.33333
```

```
mean(Ages)
```

```
## [1] 21.66667
```

```
sd(Grades)
```

```
## [1] 6.506407
```

Question 7: Creating/Loading in data frame objects from data files

This will import the data in the files to the data frame object student and customer - Note: Save the file student.csv from SAKAI to the working directory folder location you have set - Note: Save the file customer.txt from SAKAI to the working directory folder location you have set; going forward we will always use .csv but this leads as an example of how a .txt file can be used to load data as well - Create/load the data "student.csv" using read.csv and call the object Student student = read.csv("student.csv") - Create/load the data "customer.txt" using read.delim and call the object Customer customer = read.delim("customer.txt", header = TRUE)

```
student = read.csv("student.csv")
customer = read.delim("customer.txt", header = TRUE)
```

Question 6: Calculate the following using the data frame objects and summary calculations (mean, median, sd, etc.)

- Display the average (mean) of the column weight from the object student – example: mean(student\$weight)
- Display the average (mean) of the column height from the object customer

```
mean(student$weight)
```

```
## [1] 164.66
```

```
mean(customer$height)
```

```
## [1] 70
```

Question 7: Display the summary results for a data frame object

- Display the summary results for the object student – example: summary(student)

```
summary(student)
```

```
##      weight      height      age      grade
##  Min.   :110.0   Min.    :59.00   Min.    :18.00   Min.     : 70.00
##  1st Qu.:140.0   1st Qu.:65.00   1st Qu.:19.00   1st Qu.: 79.00
##  Median :160.0   Median :68.50   Median :19.00   Median : 81.00
##  Mean   :164.7   Mean    :68.08   Mean    :19.28   Mean    : 82.00
##  3rd Qu.:179.8   3rd Qu.:70.75   3rd Qu.:20.00   3rd Qu.: 85.75
##  Max.    :270.0   Max.     :78.00   Max.     :20.00   Max.    :100.00
##      class
##  Length:50
##  Class :character
##  Mode  :character
##
##
```

Question 8: Display the summary results for a data frame object

- Display the summary results for the object customer

```
summary(customer)
```

```
##      name      height      age      state
##  Length:7      Min.    :64.0   Min.    :26.00   Length:7
##  Class :character 1st Qu.:69.0   1st Qu.:34.00   Class :character
##  Mode  :character Median :71.0   Median :40.00   Mode  :character
##                  Mean  :70.0   Mean   :41.43
##                  3rd Qu.:71.5  3rd Qu.:46.00
##                  Max.   :74.0   Max.    :64.00
```

CREATE HTML FILE (no chunk needed for this)

- Create an html file that will contain:
- All the code
- Executed outputs and answers to the follow-up questions, if there is any.
- Click the arrow next to Knit and choose HTML
- This process will save the Rmd file and create the html file on your working directory.