

SESSION 2 – INTRODUCTION TO R

ASSIGNMENT 2

Date: 21st November 2018

1. Read multiple json files into a working directory for further converting into a dataset. I have files text1, text2, text3 in the directory json.

Read the JSON File - The JSON file is read by R using the function from JSON(). It is stored as a list in R.

```
library("rjson")
```

```
# Give the input file name to the function.
```

```
result <- fromJSON(file = "vb.json")
```

```
# Print the result.
```

```
print(result)
```

When we execute the above code, it produces the following result –

\$ID

```
[1] "1" "2" "3" "4" "5" "6" "7" "8"
```

\$Name

```
[1] "Rick" "Dan" "Michelle" "Ryan" "Gary" "Nina" "Simon" "Guru"
```

\$Salary

```
[1] "623.3" "515.2" "611" "729" "843.25" "578" "632.8" "722.5"
```

\$StartDate

```
[1] "1/1/2012" "9/23/2013" "11/15/2014" "5/11/2014" "3/27/2015" "5/21/2013"
"7/30/2013" "6/17/2014"
```

\$Dept

```
[1] "IT" "Operations" "IT" "HR" "Finance" "IT" "Operations" "Finance"
```

Convert JSON to a Data Frame - We can convert the extracted data above to a R data frame for further analysis using the as.data.frame() function

Load the package required to read JSON files.

```
library("rjson")
```

Give the input file name to the function.

```
result <- fromJSON(file = "vb.json")
```

Convert JSON file to a data frame.

```
json_data_frame <- as.data.frame(result)
```

```
print(json_data_frame)
```

When we execute the above code, it produces the following result –

	id,	name,	salary,	start_date,	dept
1	1	Rick	623.30	2012-01-01	IT
2	2	Dan	515.20	2013-09-23	Operations
3	3	Michelle	611.00	2014-11-15	IT
4	4	Ryan	729.00	2014-05-11	HR
5	5	Gary	843.25	2015-03-27	Finance
6	6	Nina	578.00	2013-05-21	IT
7	7	Simon	632.80	2013-07-30	Operations
8	8	Guru	722.50	2014-06-17	Finance

```
install.packages("rjson")
# Load the package required to read JSON files.
library("rjson")
# Give the input file name to the function.
# Give the input file name to the function.
result <- fromJSON(file = "input.json")
# Print the result.
print(result)
# Convert JSON file to a data frame.
json_data_frame <- as.data.frame(result)
print(json_data_frame)
```

Console output:

```
C:/Users/I0461882/Desktop/
result <- fromJSON(file = "input.json")
> # Give the input file name to the function.
> result <- fromJSON(file = "input.json")
> # Print the result.
> print(result)
$ID
[1] "1" "2" "3" "4" "5" "6" "7" "8"

$Name
[1] "Rick"      "Dan"      "Michelle" "Ryan"     "Gary"     "Nina"     "Simon"
[8] "Guru"

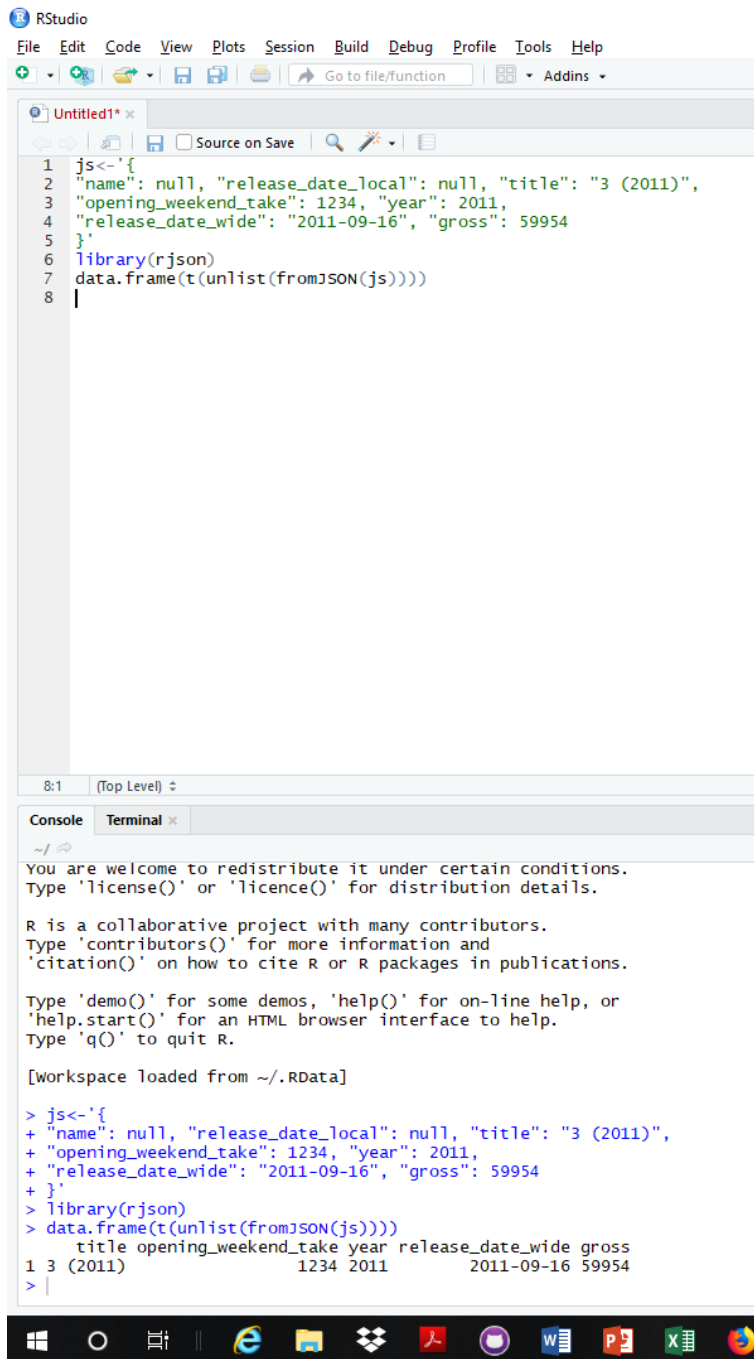
$Salary
[1] "623.3" "515.2" "611"    "729"    "843.25" "578"     "632.8" "722.5"

$StartDate
[1] "1/1/2012" "9/23/2013" "11/15/2014" "5/11/2014" "3/27/2015" "5/21/2013"
[7] "7/30/2013" "6/17/2014"

$Dept
[1] "IT"      "Operations" "IT"      "HR"      "Finance" "IT"
[7] "Operations" "Finance"

> # Convert JSON file to a data frame.
> json_data_frame <- as.data.frame(result)
>
> print(json_data_frame)
  ID Name Salary StartDate Dept
1  1 Rick  623.3  1/1/2012   IT
2  2 Dan   515.2  9/23/2013 Operations
3  3 Michelle 611 11/15/2014   IT
4  4 Ryan   729  5/11/2014    HR
5  5 Gary  843.25 3/27/2015 Finance
6  6 Nina   578  5/21/2013   IT
7  7 Simon 632.8 7/30/2013 Operations
8  8 Guru  722.5 6/17/2014  Finance
```

2. Parse the following JSON into a data frame `js<- '{"name": null, release_date_local": null, "title": "3 (2011)", "opening_weekend_take": 1234, "year": 2011, "release_date_wide": "2011-09-16", "gross": 59954}'`.



The screenshot shows the RStudio interface. The script editor contains the following code:

```
1 js<- '{
2   "name": null, "release_date_local": null, "title": "3 (2011)",
3   "opening_weekend_take": 1234, "year": 2011,
4   "release_date_wide": "2011-09-16", "gross": 59954
5 }'
6 library(rjson)
7 data.frame(t(unlist(fromJSON(js))))
8 |
```

The console shows the R startup message and the execution of the code, resulting in a data frame:

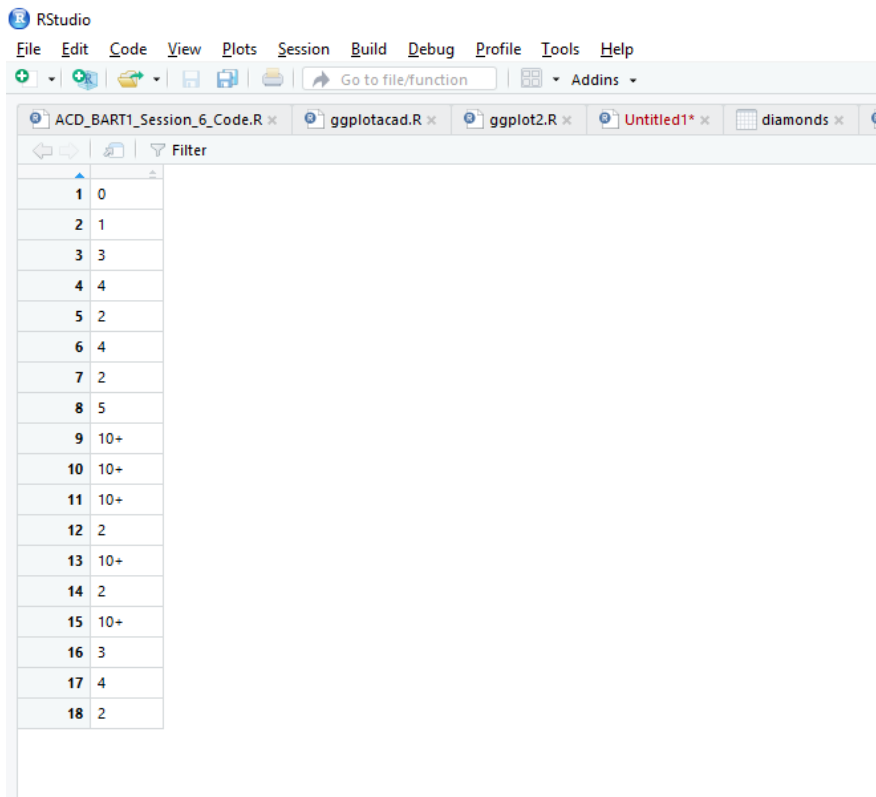
```
> js<- '{
+ "name": null, "release_date_local": null, "title": "3 (2011)",
+ "opening_weekend_take": 1234, "year": 2011,
+ "release_date_wide": "2011-09-16", "gross": 59954
+ }'
> library(rjson)
> data.frame(t(unlist(fromJSON(js))))
  title opening_weekend_take year release_date_wide gross
1 3 (2011)          1234 2011      2011-09-16 59954
```

3. Write a script for Variable Binning using R.a

```
x <- c(0,1,3,4,2,4,2,5,43,432,34,2,34,2,342,3,4,2)
```

```
binned.x <- as.factor(ifelse(x > 10,"10+",x))
```

```
View(binned.x)
```



1	0
2	1
3	3
4	4
5	2
6	4
7	2
8	5
9	10+
10	10+
11	10+
12	2
13	10+
14	2
15	10+
16	3
17	4
18	2