Json API:

• library(jsonlite)

• courseURL = "http://www.sfu.ca/bin/wcm/courseoutlines?2019/spring/stat/240/d100"

• course\_info = fromJSON(courseURL)

• class(course\_info) # find the data format & check if the API broke

• attributes(course\_info) # Use this to find out what the main pieces of the JSON contain

length(course\_info)

names(course\_info)

lapply(course\_info,class) #very useful tool to check internal info

**for loop template provided by Dave:**

•baseurl = "https://www.sfu.ca/outlines.html?"

• year = "2017"

• term = "spring"

• dept="stat"

• courseNo = "240"

• section = "e100"

• course\_url1 = paste(baseurl,year,sep="")

• (course\_url = paste(course\_url1,term,dept, courseNo, section,sep="/"))

**My attempt for json assignment Question1:**

#instructor

instructor = course\_info$instructor$name

#course number

course\_number = course\_info$info$name

#course title

course\_title = course\_info$info$title

#trying to get several course time and location

course\_day = paste(course\_info$courseSchedule$days,collapse = " ")

course\_day

course\_time\_location = course\_info$courseSchedule

course\_time1 = paste(course\_time\_location[1,1],seq="\_",course\_time\_location[1,7])

course\_time2 = paste(course\_time\_location[2,1],seq="\_",course\_time\_location[2,7])

course\_time = paste(course\_time1,course\_time2,collapse = " ")

course\_room = paste(course\_time\_location[1,9],course\_time\_location[1,3],course\_time\_location[1,10],collapse = " ")

course.time.location = paste(course\_day,course\_time,course\_room,collapse = " ")

course.time.location

#textbook

step1 = gsub("</strong>.\*","",course\_info$requiredText)

step2 = gsub("<em>.\*>","",step1)

textbook = step2

#making a data frame

course.info = data.frame(number = course\_number,title = course\_title, instructor= instructor,location = course.time.location,textbook = textbook)

colname(df)[3] = ‘NAME”

colname(df) = c(“”.””,”)

? how to change one of the column names?

``{r eval=FALSE}

codetobeshown

```

```{r include=FALSE}

nameoftable[c(-1,-3,-5),]

```

```{r echo=FALSE}

print(nameoftable)

```

**Question2:**

**acturial\_url = "http://www.sfu.ca/bin/wcm/course-outlines?2017/spring/acma"**

**acturial\_info = fromJSON(acturial\_url)**

**class(acturial\_info)**

**stat\_ulr = "http://www.sfu.ca/bin/wcm/course-outlines?2017/spring/stat"**

**stat\_info = fromJSON(stat\_ulr)**

**depart = stat\_info$title**

**stat\_info = cbind(stat\_info,depart)**

**stat\_info$depart = "stat"**

**depart = acturial\_info$text**

**acturial\_info = cbind(acturial\_info,depart)**

**acturial\_info$depart = "actuarial"**

**total = rbind(stat\_info,acturial\_info)**

**barplot(table(total$depart))**

**```**

**```{r}**

**library(wordcloud)**

**library(tm)**

**name = total$title**

**name = tolower(name)**

**name = gsub("/"," ",name)**

**name =gsub("\\<i+\\>","",name)**

**name =gsub("\\<v\\>","",name)**

**name =gsub("\\<iv\\>","",name)**

**name = gsub("^\\s+|\\s+$","",name)**

**word.split = strsplit(name," ")**

**words = unlist(word.split)**

**words = words[!words %in% tm::stopwords(kind = "english")]**

**Wordtable = table(words)**

**wordcloud(names(Wordtable),Wordtable,colors = rainbow(8),random.order = FALSE)**

**mtext("WordCloud",side = 3,line = 0)**