

```

> #install.packages("jsonlite")
> #install.packages("ggplot2")
> #install.packages("plyr")
> library(jsonlite)
> library (plyr)
> library (ggplot2)
> url <- 'https://api.github.com/'
> # the GitHub API
> path <- 'search/repositories'
> # Repositories path
> search1 <- '?q=created%3A%222015-01-01+...+2015-01-31%22'
> # Created in January of 2015
> search2 <- '?q=created%3A%222015-02-01+...+2015-02-28%22'
> # Created in February of 2015
> searchR <- '+language:r'
> # And language = R
> pageNo <- '&page=1'
> # We can specify a page number
> pageSize <- '&per_page=1'
> # 100 results per page is the max
>
> URLJan <-paste0(url, path, search1, searchR, pageNo, pageSize)
> #Here is what URLJan looks like all together
> #URL <- 'URL <- 'https://api.github.com/search/repositories
> #'?q=created%3A%222015-01-01+...+2015-01-31%22+language:r&page=1&per_page=1'
>
> URLFeb <-paste0(url, path, search2, searchR, pageNo, pageSize)
> #Here is what URLFeb looks like all together
> #URL <- 'URL <- 'https://api.github.com/search/repositories
> #'?q=created%3A%222015-02-01+...+2015-02-28%22+language:r&page=1&per_page=1'
>
> # The above URL will create a page in json format
> # Read the json and convert it to a list using the jsonlite package
> l = jsonlite::fromJSON(URLJan)
> # Get number of Jan Repositories by capturing the total count
> repos.Jan <-l$total_count
> # The above URLFeb will create a page in json format
> # Read the json and convert it to a list using the jsonlite package
> j = jsonlite::fromJSON(URLFeb)
> # Get the number of Feb Repositories by capturing the total count
> repos.Feb <-j$total_count
> # Create a dataframe and use ggplot2 to create a bar graph
> # Dataframe will have 2 columns -- Months and repositories
> months <-c("January", "February")
> repos <-c(repos.Jan, repos.Feb)
> #We use the data.frame function to bind the 2 columns together and create df

```

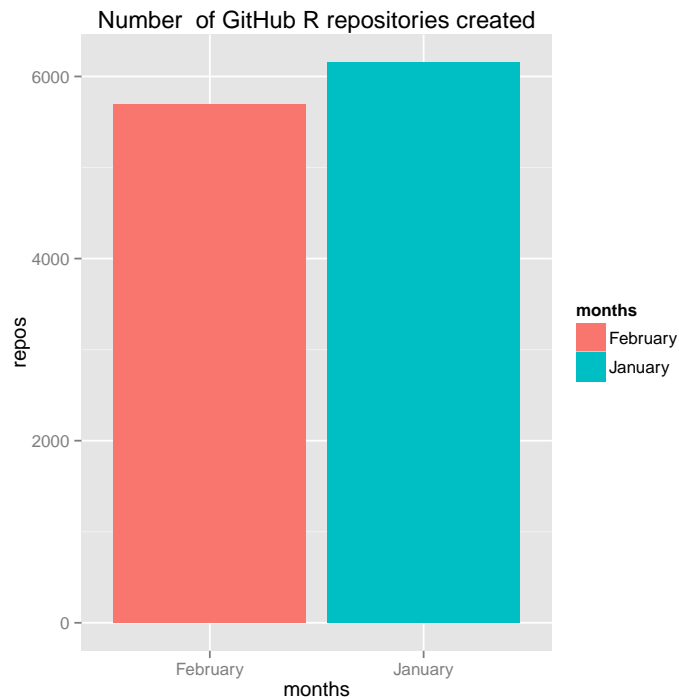
```

> df = data.frame(months, repos)
> #Finally, we create a bar chart
> ggplot(data=df, aes(x=months, y=repos, fill=months)) + geom_bar(stat="identity")+ggtitle('')
> #polar coordinate graph
> ggplot(df,aes(x = factor(""), fill = months) ) + geom_bar() +coord_polar(theta = "y")+scale_y_continuous()
> #pie chart
> pie(repos, labels = months, main="Pie Chart of Months")
> ggplot(data=df, aes(x=months, y=repos, group=1)) +
+   geom_line()+ggtitle("Factor of GitHub R repositories created")
> #To get month with More GitHub R repositories
> HighestMonth<- months[which.max(repos)]
> #summary() provides summary of data like min, max, mean, median.
> Summary <- paste0(summary(df))
> #Str() provides great info about the structure of object.
> str(df)

'data.frame':      2 obs. of  2 variables:
 $ months: Factor w/ 2 levels "February","January": 2 1
 $ repos : int  6153 5696

> #class() provides info about what is the data type
> #stored like integer, number, data frame etc.
> dfclass <- class(df)
> monthclass <- class(months)
> reposclass <- class(repos)
>
> #view() is used to see the table in grid
> #view(df)
>

```



”Are there more GitHub R repositories created in February than January?

Repositories created in February are - **5696**

Repositories created in January are - **6153**

January has more repositories created.

”

References:

1. RBlogger
2. Discussion Board setup on ReggieNet -Forums / IT497 OSEMN Assignment Help / Reading JSON in R / Data gathering on Github
3. Class Notes
4. R resources in ReggieNet under Resources and Material