DATA607_Assignment SQL and R

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```
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.2 --
## v ggplot2 3.3.6     v purrr   0.3.4
## v tibble  3.1.7     v dplyr   1.0.9
## v tidyr   1.2.0     v stringr 1.4.1
## v readr   2.1.2     v forcats 0.5.2
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

###Calling the necessary packages

```
library(DBI)
library(RMySQL)
library(RODBC)
```

Establish MySQL connection

```
mydb = dbConnect(MySQL(), user='root', password='Sysadm123', dbname='movie_data', host='localhost')
```

Table list

```
dbListTables(mydb)
```

```
## [1] "movies"                    "people"
## [3] "peoplemovieratingsresults" "peoplemoviesratings"
```

Table fields

```
dbListFields(mydb, 'movie_data.people')
```

```
## [1] "NameID"    "FirstName" "LastName"
```

```
dbListFields(mydb, 'movie_data.movies')
```

```
## [1] "MovieID"    "MovieTitle"
```

```
dbListFields(mydb, 'movie_data.PeopleMoviesRatings')
```

```
## [1] "RatingID" "NameID"   "MovieID"  "Rating"
```

```
dbListFields(mydb, 'movie_data.PeopleMovieRatingsResults')
```

```
## [1] "FirstName"  "LastName"   "MovieTitle" "Rating"
```

```
PeopleMoviesRatings = dbSendQuery(mydb, "select * from movie_data.PeopleMoviesRatings")
```

Fetch table people from database

```
PeopleMoviesRatings = fetch(PeopleMoviesRatings, n = 5)
print(PeopleMoviesRatings)
```

```
##   RatingID NameID MovieID Rating
## 1        1      1       1      4
## 2        2      1       2      4
## 3        3      1       3      2
## 4        4      1       4      5
## 5        5      1       5      3
```

movies table fields

Reading a csv file to R

```
mysql <- read.csv("https://raw.githubusercontent.com/GabrielSantos33/DATA607-Assignment-2/main/movie_ra
head(mysql)
```

I exported my sq data into a csv file and I placed the csv file on Github. I then made R read the csv file on Github and then I placed all that data into a data frame called mysql. I then took a look at the csv file to make sure I had the correct csv file read.

```
##                    movie Fri_name Stars
## 1               Eternals    Ahmed     4
## 2              Shang-Chi    Ahmed     4
## 3 Spider-Man No Way Home    Ahmed     5
## 4                   Dune    Ahmed     3
## 5                  Venom    Ahmed     1
## 6         No Time to Die    Ahmed  NULL
```

Average Rating of Movies My Friends Watched

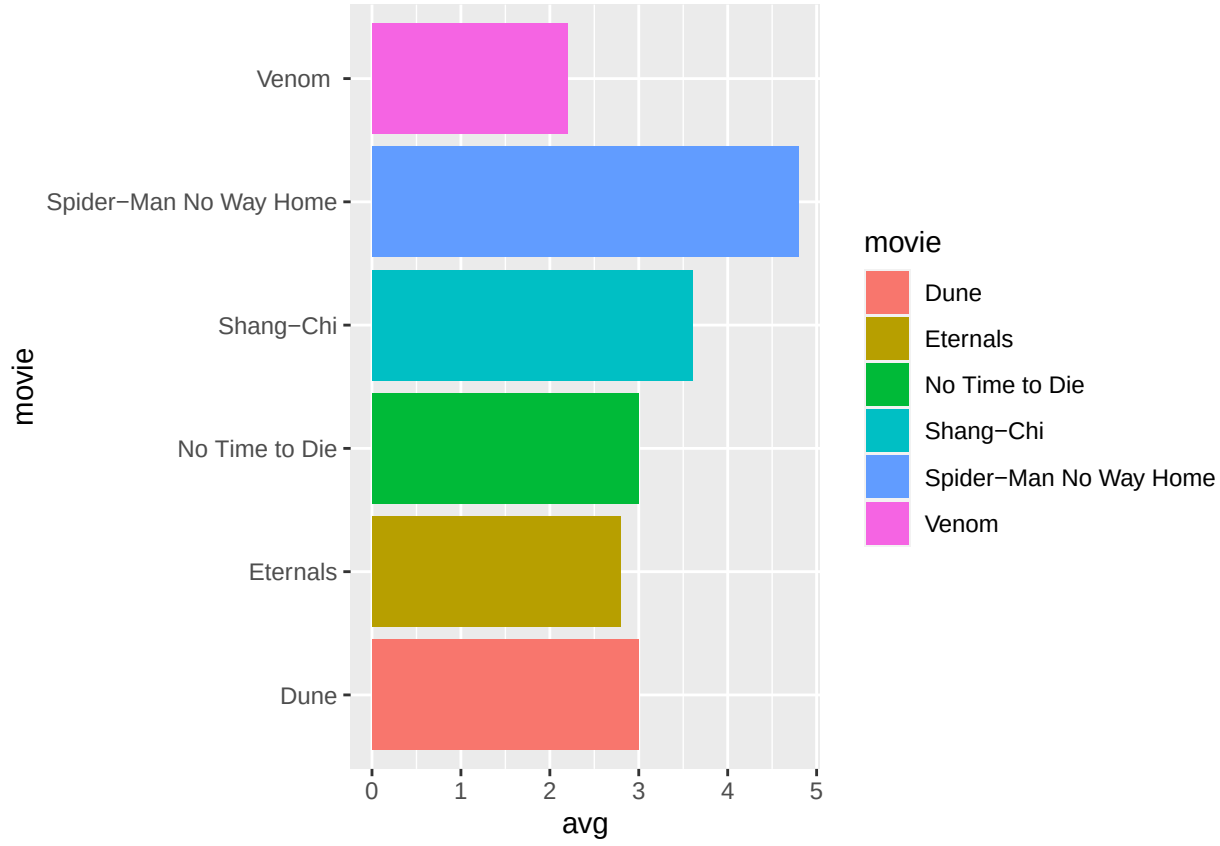
```
avg_mov <- mysql %>%
  group_by(movie) %>%
  filter(Stars != "NULL") %>%
  summarise(avg= mean(as.integer(Stars)))
avg_mov
```

I was curious on what the average rating was between movies that my friends had watched.I first filtered out the null values and then I had to make the chr values under Stars into integer values to calculate the average.

```
## # A tibble: 6 x 2
##   movie                      avg
##   <chr>                    <dbl>
## 1 "Dune"                     3
## 2 "Eternals"                 2.8
## 3 "No Time to Die"           3
## 4 "Shang-Chi"                3.6
## 5 "Spider-Man No Way Home"   4.8
## 6 "Venom "                   2.2
```

Spider-Man was watched by all my friends and they also rated it very highly with a rating of 4.8

```
library(ggplot2)
ggplot(data=avg_mov, aes(x=movie,y=avg , fill=movie)) +
  coord_flip() +
  geom_bar(stat="identity")
```



Movies my Friends did not watched and how many didn't watch.

Movies my friends did not watch so I aggregated the data by movie, I filtered the condition where the stars were null and I counted how many people did not watch the movies.

```
nul <- mysql %>%
  group_by(movie) %>%
  filter(Stars=="NULL") %>%
  count(Stars,sort=TRUE)
nul
```

4 of my friends did not watch No Time to Die and one of my friend did not watch dune.

```
## # A tibble: 2 x 3
## # Groups:   movie [2]
##   movie          Stars     n
##   <chr>          <chr> <int>
## 1 No Time to Die NULL      4
## 2 Dune           NULL      1
```

Results

```
library(ggplot2)
ggplot(data=nul,aes(x=movie,y=n,fill=movie)) +
  geom_bar(stat="Identity")
```