DATA607_HW9

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DATA 607 Home Work 9 - R/MySQL/MongoDB.

Introduction.

In this Home Work, I have tried to connect to MYSQL database, get records from table and have created data.frames and migtrated the data to MongoDB.

SQL Tables: Have created three tables for this home work namely REVIEWER, MOVIE_NAMES and REIVIEW_MOVIE_RATINGS

Mongo

In MongoDB, everything is just a Collection. So all the individual fields will get moved as a single collection.

Step 1: SQL Connection

```
#Connecting to MySQL database using dbConnect. Password is not masked for home work purpose.
mydb = dbConnect(MySQL(), user='root', password='mysql@123', dbname='DATA607', host='localhost')
dbListTables(mydb)
```

```
## [1] "movie_names"         "review_movie_rating" "reviewer"
```

Step 2: Fetching records from tables.

```
# Now trying to get the 3 table data as individual data.frames.
reviewer <- dbGetQuery(mydb, "select * from reviewer")

movie_names <- dbGetQuery(mydb, "select * from movie_names")

ratings <- dbGetQuery(mydb, "select * from review_movie_rating")
```

Step 3: Checking how data got populated in data frames..

```
head(reviewer)
```

```
##   reviewer_id reviewer
## 1           1     KYLE
## 2           2   DUUBAR
## 3           3      JAI
## 4           4     JAAN
## 5           5    KELLY
## 6           6  GEORGIA
```

```
head(movie_names)
```

```
##   movie_id              movie_names
## 1        1 The Shawshank Redemption
## 2        2             Harry Potter
## 3        3               The Matrix
## 4        4               Home Alone
## 5        5            The Godfather
## 6        6                  Titanic
```

```
head(ratings)
```

```
##   reviewer_id movie_id ratings
## 1           1        1       5
## 2           1        2       2
## 3           1        3       2
## 4           1        4       4
## 5           1        5       3
## 6           1        6       5
```

Step 4: Connecting to MongoDB using MongoLite.

```
##if (!require("RMongo")) install.packages('RMongo')
 ##library(RMongo)

##mongo = mongoDbConnect("test", "127.0.0.1", 27017)

##b=mongo.bson.from.df(reviewer)

##output <- dbInsertDocument(mongo, "reviewer", reviewer)
##output <- dbGetQuery(mongo, 'test_data', '{"foo": "bar"}')
##print(output)

# Connectiong to MongoDB using MongoLite pacakge
con=mongo(collection = "test", db = "test", url = "mongodb://localhost",
verbose = FALSE, options = ssl_options())
```

Step 5: Migrating Data to Mongo DB.

```
# Inserting in to MongoDB
con$insert(reviewer)
```

```
## List of 5
##  $ nInserted  : num 6
##  $ nMatched   : num 0
##  $ nRemoved   : num 0
##  $ nUpserted  : num 0
##  $ writeErrors: list()
```

```
con$insert(movie_names)
```

```
## List of 5
##  $ nInserted  : num 6
##  $ nMatched   : num 0
##  $ nRemoved   : num 0
```

```
##  $ nUpserted  : num 0
##  $ writeErrors: list()
```

```
con$insert(ratings)
```

```
## List of 5
##  $ nInserted  : num 36
##  $ nMatched   : num 0
##  $ nRemoved   : num 0
##  $ nUpserted  : num 0
##  $ writeErrors: list()
```

```
# Getting the count of rows
con$count()
```

```
## [1] 48
```

```
#Find Query to select all fields
alldata=con$find('{}')
knitr::kable(alldata)
```

reviewer_id	reviewer	movie_id	movie_names	ratings
1	KYLE	NA	NA	NA
2	DUUBAR	NA	NA	NA
3	JAI	NA	NA	NA
4	JAAN	NA	NA	NA
5	KELLY	NA	NA	NA
6	GEORGIA	NA	NA	NA
NA	NA	1	The Shawshank Redemption	NA
NA	NA	2	Harry Potter	NA
NA	NA	3	The Matrix	NA
NA	NA	4	Home Alone	NA
NA	NA	5	The Godfather	NA
NA	NA	6	Titanic	NA
1	NA	1	NA	5
1	NA	2	NA	2
1	NA	3	NA	2
1	NA	4	NA	4
1	NA	5	NA	3
1	NA	6	NA	5
2	NA	1	NA	5
2	NA	2	NA	5
2	NA	3	NA	4
2	NA	4	NA	4
2	NA	5	NA	3
2	NA	6	NA	5
3	NA	1	NA	2
3	NA	2	NA	3
3	NA	3	NA	1
3	NA	4	NA	4
3	NA	5	NA	4
3	NA	6	NA	5
4	NA	1	NA	2
4	NA	2	NA	5
4	NA	3	NA	4
4	NA	4	NA	2

reviewer_id	reviewer	movie_id	movie_names	ratings
4	NA	5	NA	4
4	NA	6	NA	5
5	NA	1	NA	5
5	NA	2	NA	5
5	NA	3	NA	4
5	NA	4	NA	4
5	NA	5	NA	4
5	NA	6	NA	5
6	NA	1	NA	4
6	NA	2	NA	5
6	NA	3	NA	3
6	NA	4	NA	4
6	NA	5	NA	5
6	NA	6	NA	5

```
#Remove all data from MongoDB
con$remove('{}')

#Drop the collection
con$drop()
```