```
from pymongo import MongoClient
```

```
client = MongoClient("mongodb+srv://navami_vk:Bh99txDBGVWl4JAb@dbd.hgdxhf4.mongodb.net/?retryWrites=true&w=majority")
```

```
db = client['OTT']
```

```
db.list_collection_names()
```

```
['Netflix', 'DisneyPlus', 'Hulu', 'Amazon']
```

```
superPowers =  db.Netflix.find({'description' : {"$regex" : r'super.*power'}})

for i in superPowers:
  print(i)
```

```
{'_id': ObjectId('6380507888b5cf9cd595fb33'), 'show_id': 's40', 'type': 'TV Show', 'title': 'Chhota Bheem', 'director': nan, 'cast': 'Va
{'_id': ObjectId('6380507888b5cf9cd595fb59'), 'show_id': 's78', 'type': 'Movie', 'title': 'Little Singham - Black Shadow', 'director':
{'_id': ObjectId('6380507888b5cf9cd595fb84'), 'show_id': 's121', 'type': 'TV Show', 'title': 'Heroes of Goo Jit Zu', 'director': nan, 'c
{'_id': ObjectId('6380507888b5cf9cd595fb6d'), 'show_id': 's98', 'type': 'TV Show', 'title': 'Kid Cosmic', 'director': nan, 'cast': 'Jack
{'_id': ObjectId('6380507888b5cf9cd595fb65'), 'show_id': 's90', 'type': 'TV Show', 'title': 'Mighty Raju', 'director': nan, 'cast': 'Jul
{'_id': ObjectId('6380507888b5cf9cd595fc0c'), 'show_id': 's257', 'type': 'Movie', 'title': 'Nneka The Pretty Serpent', 'director': 'Tosi
{'_id': ObjectId('6380507888b5cf9cd595fd35'), 'show_id': 's554', 'type': 'TV Show', 'title': 'Mortel', 'director': nan, 'cast': 'Carl Ma
{'_id': ObjectId('6380507888b5cf9cd595fced'), 'show_id': 's482', 'type': 'Movie', 'title': 'How I Became a Superhero', 'director': 'Doug
{'_id': ObjectId('6380507888b5cf9cd5960052'), 'show_id': 's1351', 'type': 'TV Show', 'title': 'Power Rangers Ninja Steel', 'director': r
{'_id': ObjectId('6380507888b5cf9cd595ff41'), 'show_id': 's1078', 'type': 'Movie', 'title': 'Shiva: Journey to Plunotaria', 'director':
{'_id': ObjectId('6380507888b5cf9cd595ff4c'), 'show_id': 's1089', 'type': 'Movie', 'title': 'Thunder Force', 'director': 'Ben Falcone',
{'_id': ObjectId('6380507888b5cf9cd595ff5e'), 'show_id': 's1107', 'type': 'Movie', 'title': 'Cross: Rise of the Villains', 'director':
{'_id': ObjectId('6380507888b5cf9cd596024b'), 'show_id': 's1856', 'type': 'Movie', 'title': 'A Choo', 'director': 'Kevin Ko, Peter Tsi',
{'_id': ObjectId('6380507888b5cf9cd596035d'), 'show_id': 's2130', 'type': 'Movie', 'title': 'Fearless', 'director': 'Cory Edwards', 'cas
{'_id': ObjectId('6380507888b5cf9cd5960360'), 'show_id': 's2133', 'type': 'Movie', 'title': 'Project Power', 'director': 'Henry Joost, A
{'_id': ObjectId('6380507888b5cf9cd596038d'), 'show_id': 's2178', 'type': 'Movie', 'title': 'Super Monsters: The New Class', 'director':
{'_id': ObjectId('6380507888b5cf9cd596040b'), 'show_id': 's2304', 'type': 'TV Show', 'title': 'Warrior Nun', 'director': nan, 'cast': 'A
{'_id': ObjectId('6380507888b5cf9cd59605a2'), 'show_id': 's2711', 'type': 'TV Show', 'title': 'Legacies', 'director': nan, 'cast': 'Dani
{'_id': ObjectId('6380507888b5cf9cd5960471'), 'show_id': 's2406', 'type': 'TV Show', 'title': "DC's Legends of Tomorrow", 'director': 'F
{'_id': ObjectId('6380507888b5cf9cd5960889'), 'show_id': 's3454', 'type': 'TV Show', 'title': 'Raising Dion', 'director': nan, 'cast': '
{'_id': ObjectId('6380507888b5cf9cd595ff3e'), 'show_id': 's1075', 'type': 'Movie', 'title': 'Motu Patlu the Superheroes – Super Villains
{'_id': ObjectId('6380507888b5cf9cd59602f7'), 'show_id': 's2028', 'type': 'Movie', 'title': 'Satria Heroes: Revenge of the Darkness', 'c
{'_id': ObjectId('6380507888b5cf9cd5960313'), 'show_id': 's2056', 'type': 'Movie', 'title': "Freaks – You're One of Us", 'director': 'Fe
{'_id': ObjectId('6380507888b5cf9cd596058e'), 'show_id': 's2691', 'type': 'Movie', 'title': 'Code 8', 'director': 'Jeff Chan', 'cast':
{'_id': ObjectId('6380507888b5cf9cd596064c'), 'show_id': 's2881', 'type': 'TV Show', 'title': 'I Am Not Okay With This', 'director': nar
{'_id': ObjectId('6380507888b5cf9cd596056e'), 'show_id': 's2659', 'type': 'TV Show', 'title': 'Bleach', 'director': nan, 'cast': 'Masaka
{'_id': ObjectId('6380507888b5cf9cd5960cab'), 'show_id': 's4512', 'type': 'TV Show', 'title': "Edgar Rice Burroughs' Tarzan and Jane",
{'_id': ObjectId('6380507888b5cf9cd5960e42'), 'show_id': 's4919', 'type': 'Movie', 'title': 'Psychokinesis', 'director': 'Sang-ho Yeon',
{'_id': ObjectId('6380507888b5cf9cd5961266'), 'show_id': 's5979', 'type': 'TV Show', 'title': 'Şubat', 'director': nan, 'cast': 'Alican
{'_id': ObjectId('6380507888b5cf9cd596133e'), 'show_id': 's6195', 'type': 'TV Show', 'title': 'Atomic Puppet', 'director': nan, 'cast':
{'_id': ObjectId('6380507888b5cf9cd5960c7e'), 'show_id': 's4467', 'type': 'Movie', 'title': 'Zokkomon', 'director': 'Satyajit Bhatkal',
{'_id': ObjectId('6380507888b5cf9cd596129f'), 'show_id': 's6036', 'type': 'Movie', 'title': 'A Flying Jatt', 'director': "Remo D'Souza",
{'_id': ObjectId('6380507888b5cf9cd59613c1'), 'show_id': 's6326', 'type': 'Movie', 'title': 'Black Panther', 'director': 'Ryan Coogler',
{'_id': ObjectId('6380507888b5cf9cd59616aa'), 'show_id': 's7071', 'type': 'Movie', 'title': 'Indiana Jones and the Kingdom of the Crysta
{'_id': ObjectId('6380507888b5cf9cd59617e2'), 'show_id': 's7383', 'type': 'TV Show', 'title': 'Maharakshak: Aryan', 'director': nan, 'ca
{'_id': ObjectId('6380507888b5cf9cd596182a'), 'show_id': 's7455', 'type': 'Movie', 'title': 'Midnight Special', 'director': 'Jeff Nichol
{'_id': ObjectId('6380507888b5cf9cd5961bf3'), 'show_id': 's8424', 'type': 'TV Show', 'title': 'The Minimighty Kids', 'director': nan, 'c
{'_id': ObjectId('6380507888b5cf9cd5961cf3'), 'show_id': 's8680', 'type': 'TV Show', 'title': 'ViR: The Robot Boy', 'director': nan, 'ca
{'_id': ObjectId('6380507888b5cf9cd5961c7b'), 'show_id': 's8560', 'type': 'Movie', 'title': 'The Witch Files', 'director': 'Kyle Rankin
```

```
movies2000 = db.DisneyPlus.find({"type" : "MOVIE", 'release_year' : {'$gte' : 2000}, 'imdb_score' : {'$gt' : 7.5}}, {'title' : 1, 'runtime' :

for movie in movies2000:
  print(movie)
```

```
{'_id': ObjectId('638057fb88b5cf9cd596eb91'), 'title': 'Remember the Titans', 'runtime': 113, 'genres': "['drama', 'sport']"}
{'_id': ObjectId('638057fb88b5cf9cd596ec2d'), 'title': 'Fantastic Mr. Fox', 'runtime': 87, 'genres': "['animation', 'family', 'comedy
{'_id': ObjectId('638057fb88b5cf9cd596ec51'), 'title': 'Finding Nemo', 'runtime': 100, 'genres': "['animation', 'family', 'comedy']"}
{'_id': ObjectId('638057fb88b5cf9cd596ec6b'), 'title': 'Tangled', 'runtime': 100, 'genres': "['animation', 'romance', 'comedy', 'fami
{'_id': ObjectId('638057fb88b5cf9cd596ee24'), 'title': 'Star Wars: The Force Awakens', 'runtime': 135, 'genres': "['scifi', 'fantasy'
{'_id': ObjectId('638057fb88b5cf9cd596ef99'), 'title': 'Surviving the Mount St. Helens Disaster', 'runtime': 45, 'genres': "['documen
{'_id': ObjectId('638057fb88b5cf9cd596efb5'), 'title': 'Arendelle Castle Yule Log', 'runtime': 180, 'genres': "['animation', 'drama']
{'_id': ObjectId('638057fb88b5cf9cd596efdf'), 'title': 'Summer of Soul (...Or, When the Revolution Could Not Be Televised)', 'runtime
{'_id': ObjectId('638057fb88b5cf9cd596ec2b'), 'title': 'Avatar', 'runtime': 165, 'genres': "['fantasy', 'scifi', 'action']"}
{'_id': ObjectId('638057fb88b5cf9cd596ec36'), 'title': 'Iron Man', 'runtime': 125, 'genres': "['action', 'scifi']"}
{'_id': ObjectId('638057fb88b5cf9cd596eca2'), 'title': 'Oceans', 'runtime': 84, 'genres': "['documentation', 'family', 'drama', 'euro
{'_id': ObjectId('638057fb88b5cf9cd596ed5e'), 'title': 'Wreck-It Ralph', 'runtime': 120, 'genres': "['comedy', 'animation', 'family',
{'_id': ObjectId('638057fb88b5cf9cd596ec2a'), 'title': 'Pirates of the Caribbean: The Curse of the Black Pearl', 'runtime': 143, 'gen
{'_id': ObjectId('638057fb88b5cf9cd596ecd2'), 'title': 'The Pixar Story', 'runtime': 87, 'genres': "['documentation']"}
{'_id': ObjectId('638057fb88b5cf9cd596ed59'), 'title': 'X-Men: First Class', 'runtime': 131, 'genres': "['action', 'scifi']"}
{'_id': ObjectId('638057fb88b5cf9cd596ed5a'), 'title': 'The Avengers', 'runtime': 143, 'genres': "['scifi', 'action']"}
```

```
{'_id': ObjectId('638057fb88b5cf9cd596edf6'), 'title': 'The Book of Manning', 'runtime': 120, 'genres': "['documentation', 'sport']"}
{'_id': ObjectId('638057fb88b5cf9cd596ee12'), 'title': 'Hidden Figures', 'runtime': 127, 'genres': "['drama', 'history']"}
{'_id': ObjectId('638057fb88b5cf9cd596ee9f'), 'title': 'Newsies', 'runtime': 134, 'genres': "['drama', 'music']"}
{'_id': ObjectId('638057fb88b5cf9cd596eecf'), 'title': 'Howard', 'runtime': 93, 'genres': "['documentation', 'music']"}
{'_id': ObjectId('638057fb88b5cf9cd596eee6'), 'title': "Sea of Hope: America's Underwater Treasures", 'runtime': 47, 'genres': "['doc
{'_id': ObjectId('638057fb88b5cf9cd596eeee'), 'title': 'The Flood', 'runtime': 88, 'genres': "['documentation']"}
{'_id': ObjectId('638057fb88b5cf9cd596ec4b'), 'title': 'Up', 'runtime': 96, 'genres': "['comedy', 'drama', 'family', 'animation']"}
{'_id': ObjectId('638057fb88b5cf9cd596edba'), 'title': 'X-Men: Days of Future Past', 'runtime': 131, 'genres': "['fantasy', 'scifi',
{'_id': ObjectId('638057fb88b5cf9cd596ee1c'), 'title': 'Rogue One: A Star Wars Story', 'runtime': 133, 'genres': "['scifi', 'action']
{'_id': ObjectId('638057fb88b5cf9cd596ee80'), 'title': 'Free Solo', 'runtime': 100, 'genres': "['action', 'documentation', 'sport']"}
{'_id': ObjectId('638057fb88b5cf9cd596ee8d'), 'title': 'Incredibles 2', 'runtime': 118, 'genres': "['action', 'animation', 'scifi', '
{'_id': ObjectId('638057fb88b5cf9cd596eeb1'), 'title': 'Science Fair', 'runtime': 90, 'genres': "['documentation', 'action', 'scifi']
{'_id': ObjectId('638057fb88b5cf9cd596ef00'), 'title': 'Avengers: Endgame', 'runtime': 181, 'genres': "['scifi', 'fantasy', 'action',
{'_id': ObjectId('638057fb88b5cf9cd596efe8'), 'title': 'The Rescue', 'runtime': 107, 'genres': "['action', 'thriller', 'drama', 'docu
{'_id': ObjectId('638057fb88b5cf9cd596ee1b'), 'title': 'Moana', 'runtime': 107, 'genres': "['action', 'comedy', 'family', 'animation'
{'_id': ObjectId('638057fb88b5cf9cd596ee1e'), 'title': 'Captain America: Civil War', 'runtime': 148, 'genres': "['action', 'scifi']"}
{'_id': ObjectId('638057fb88b5cf9cd596ee86'), 'title': 'Coco', 'runtime': 109, 'genres': "['animation', 'fantasy', 'comedy', 'drama',
{'_id': ObjectId('638057fb88b5cf9cd596ef36'), 'title': 'Jane Goodall: The Hope', 'runtime': 88, 'genres': "['action', 'documentation'
{'_id': ObjectId('638057fb88b5cf9cd596f042'), 'title': 'ASSEMBLED: The Making of Hawkeye', 'runtime': 59, 'genres': "['documentation'
{'_id': ObjectId('638057fb88b5cf9cd596edb8'), 'title': 'Guardians of the Galaxy', 'runtime': 120, 'genres': "['action', 'comedy', 'sc
{'_id': ObjectId('638057fb88b5cf9cd596efd5'), 'title': 'Born Wild: The Next Generation', 'runtime': 60, 'genres': "['documentation']"
{'_id': ObjectId('638057fb88b5cf9cd596ec5d'), 'title': 'Monsters, Inc.', 'runtime': 92, 'genres': "['animation', 'comedy', 'family',
{'_id': ObjectId('638057fb88b5cf9cd596ed16'), 'title': "The Boys: The Sherman Brothers' Story", 'runtime': 101, 'genres': "['document
{'_id': ObjectId('638057fb88b5cf9cd596edbc'), 'title': 'The Fault in Our Stars', 'runtime': 126, 'genres': "['romance', 'drama']"}
{'_id': ObjectId('638057fb88b5cf9cd596ee16'), 'title': 'Zootopia', 'runtime': 108, 'genres': "['comedy', 'crime', 'animation', 'actio
{'_id': ObjectId('638057fb88b5cf9cd596ee2c'), 'title': 'Before the Flood', 'runtime': 95, 'genres': "['documentation']"}
{'_id': ObjectId('638057fb88b5cf9cd596ec38'), 'title': 'WALL·E', 'runtime': 98, 'genres': "['scifi', 'family', 'fantasy', 'romance',
{'_id': ObjectId('638057fb88b5cf9cd596ecc3'), 'title': 'Waking Sleeping Beauty', 'runtime': 86, 'genres': "['documentation', 'drama',
{'_id': ObjectId('638057fb88b5cf9cd596ed28'), 'title': 'Prep & Landing', 'runtime': 22, 'genres': "['fantasy', 'family', 'animation',
{'_id': ObjectId('638057fb88b5cf9cd596edc4'), 'title': 'Captain America: The Winter Soldier', 'runtime': 135, 'genres': "['scifi', 't
{'_id': ObjectId('638057fb88b5cf9cd596ee81'), 'title': 'Isle of Dogs', 'runtime': 101, 'genres': "['comedy', 'drama', 'scifi', 'fanta
{'_id': ObjectId('638057fb88b5cf9cd596ee88'), 'title': 'Avengers: Infinity War', 'runtime': 150, 'genres': "['scifi', 'action', 'fant
{'_id': ObjectId('638057fb88b5cf9cd596ee8b'), 'title': 'Guardians of the Galaxy Vol. 2', 'runtime': 136, 'genres': "['scifi', 'comedy
{'_id': ObjectId('638057fb88b5cf9cd596ee59'), 'title': "Disney's Broadway Hits at London's Royal Albert Hall", 'runtime': 155, 'genre
{'_id': ObjectId('638057fb88b5cf9cd596eea5'), 'title': 'Jane', 'runtime': 90, 'genres': "['documentation']"}
{'_id': ObjectId('638057fb88b5cf9cd596eed4'), 'title': 'Into the Okavango', 'runtime': 94, 'genres': "['documentation']"}
{'_id': ObjectId('638057fb88b5cf9cd596eefe'), 'title': 'Hamilton', 'runtime': 160, 'genres': "['drama', 'history', 'music']"}
{'_id': ObjectId('638057fb88b5cf9cd596ef8b'), 'title': 'The Dominican Dream', 'runtime': 77, 'genres': "['documentation', 'sport']"}
{'_id': ObjectId('638057fb88b5cf9cd596ef93'), 'title': 'Adventure Thru the Walt Disney Archives', 'runtime': 60, 'genres': "['documen
```

```
pg13 = db.Amazon.find({"rating" : "PG-13", "release_year" : {"$lte" : 2000}, "director" : "Francis Ford Coppola"}, {'type' : 1, 'title' : 1,

for movie in pg13:
  print(movie)
```

```
{'_id': ObjectId('6380556f88b5cf9cd5968eac'), 'type': 'Movie', 'title': 'Jack', 'director': 'Francis Ford Coppola', 'release_year': 1996
```

```
import numpy as np
```

```
pipeline = [
    {
        '$match' : {
            'imdb_score' : {"$nin" : [None, "", 'NaN', 'null', np.nan]},
            'tmdb_score' : {"$nin" : [None, "", 'NaN', 'null', np.nan]},
            'age_certification' : {"$nin" : [None, "", 'NaN', 'null', np.nan]}
        }
    },
    {
        '$group' :
      {
          '_id' : '$age_certification',
          'avgIMDB' : {'$avg' : '$imdb_score'},
          'avgTMDB' : {'$avg' : '$tmdb_score'}
      }
    }
]

imdb = db.DisneyPlus.aggregate(pipeline = pipeline)

for movie in imdb:
  print(movie)
```

```
{'_id': 'TV-14', 'avgIMDB': 7.329268292682927, 'avgTMDB': 8.229268292682926}
{'_id': 'TV-Y', 'avgIMDB': 6.459999999999999, 'avgTMDB': 7.3225}
{'_id': 'G', 'avgIMDB': 6.401515151515151, 'avgTMDB': 6.6238636363636365}
{'_id': 'TV-PG', 'avgIMDB': 7.275342465753425, 'avgTMDB': 7.491780821917808}
{'_id': 'TV-Y7', 'avgIMDB': 6.680000000000001, 'avgTMDB': 7.506666666666666}
```

```
{'_id': 'TV-MA', 'avgIMDB': 7.683333333333334, 'avgTMDB': 7.449999999999999}
{'_id': 'PG-13', 'avgIMDB': 7.055172413793103, 'avgTMDB': 7.081609195402299}
{'_id': 'TV-G', 'avgIMDB': 6.665822784810127, 'avgTMDB': 7.555696202531645}
{'_id': 'PG', 'avgIMDB': 6.356357388316152, 'avgTMDB': 6.621305841924398}
```

```
query = {
    "description" : {"$regex" : r'teen'}
}

replace = {
    '$set' : {"description" : "Just another teen movie"}
}

updateDesc = db.Hulu.update_many(query, replace)

print(updateDesc.modified_count)
```

```
127
```