LAB 2 - MONGO DB QUERY LOGS (Shell execution)

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SCENARIO 1 - NO OF MOVIES WATCHED PER COUNTRY

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate ([
{ $project : {custCountry:"$cust_country"} },
{ $group : {_id: { custCountry:"$custCountry"},movies_watched: {$sum: 1}}},
{$sort :{movies_watched:-1}}
])
```

SCENARIO 2 - NO OF MOVIES RELEASED PER YEAR

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{"rank_id":{$nin:[null,""]}}},
{$group:{_id: {year:"$Year"},  movies: {  $addToSet: "$rank_id"  }}},
{$project:{ year:1, uniqueCount:{$size:"$movies"}}},
{$sort:{uniqueCount:-1}}
])
```

SCENARIO 3 - TOP 5 EMPLOYEES WHO HAVE RESPONDED TO MOST COMPLAINTS

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{  "complaint_id":{$nin:[null,""]}}},
{ $group:
{ _id: {employeeId:"$employeeId",
employeeName:{$concat:["$emp_first_name","","$emp_middle_name","","$emp_last_name"]}},
compl:{$addToSet:"$complaint_id"}, cust:{$addToSet:"$customer_id"}
} },
{ $project:{  employeeId:1,employeeName:1,uniqueCount:{$size:"$compl"}  }},
{$sort:{uniqueCount: -1}},
{$limit : 5}
]).pretty()
```

SCENARIO 4 - NO OF CUSTOMERS PER COUNTRY

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$group:{_id:{"custcountry" : "$cust_country"},uniqueCount: {$addToSet: "$customer_id"}}},
{$project:{"custcountry":1,uniqueCustomerCount:{$size:"$uniqueCount"}} }
]);
```

SCENARIO 5 - NO OF COMPLAINTS RECORDED PER COMPLAINT CATEGORY

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match: { "complaint_id":{$nin:[null]}}},
{$group:{_id: {complaintCategory:"$complaint_category"}, uniqueCount: {   $addToSet: "$customer_id"
}}},
{$project:{ complaintCategory:1, count:{$size:"$uniqueCount"}}},
{$sort:{ count: -1}}
])
```

SCENARIO 6 - COMPLAINTS CLOSED PER MONTH

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{"close_date":{$nin:[null,""]}}},
{$group:{_id:{closed_month:{$month:"$close_date"}},number:{$addToSet:"$complaint_id"}}},
{$project:{closed_month:1,totalComplaints:{$size:"$number"}}},
])
```

SCENARIO 7 – COMPLAINTS CREATED PER MONTH

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{"complaint_creation_date":{$nin:[null,""]}}},
{$group:{_id:{creation_month:{$month:"$complaint_creation_date"}},number:{$addToSet:"$complaint_id"
}}},
{$project:{creation_month:1,totalComplaints:{$size:"$number"}}},
])
```

SCENARIO 8 - PAYMENT MADE PER MONTH

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{"total_amount":{$nin:[null,""]}}},
{$project:{payment_date:"$payment_date",amount:"$total_amount"}},
{$group:{_id:{Month:{$month:"$payment_date"}},total_count:{$sum:"$amount"}}},
{$sort:{"_id.Month":1}}
])
```

SCENARIO 9 - TOP 10 CUSTOMERS BASED ON MOVIES WATCHED

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{ "user_id":{$nin:[null,""]}}},
{$group:{ _id: {customerName:{$concat:["$cust_first_name"," ","$cust_middle_name","
","$cust_last_name"]}}, rank: {   $addToSet: "$rank_id" }}},
{$project:{ customerName:1,  moviesWatched:{$size:"$rank"}}},
{$sort:{ moviesWatched:-1}},
{$limit:10}
])
```

SCENARIO 10 - TOP 10 DIRECTORS BASED ON USER WATCH HISTORY

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{ "Director":{$nin:[null,""]}}},
{$group:{ _id: {director:"$Director"},  cust: {   $addToSet: "$user_id" },rank:{$addToSet:"$rank_id"}}},
{$project:{ director:1, count: {  $size: "$rank"  }}},
{$sort:{ count:-1}},
{$limit:5}
])
```

SCENARIO 11 - COMPLAINTS BASED ON SEVERITY

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match: { "complaint_id":{$nin:[null]}}},
{$group:{ _id: {complaintSeverity:"$severity"}, totalCount: {  $addToSet: "$complaint_id"  }}},
{$project:{ complaintSeverity:1,totalComplaints:{$size:"$totalCount"}}},
{$sort:{ totalComplaints: 1}}
])
```

SCENARIO 12 - AVERAGE SALARY BASED ON DESIGNATION

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{"emp_id":{$nin:[null,""]}}},
{$project:{salary:"$emp_salary", designation:"$emp_position"}},
{$group:{ _id: {designation:"$designation"},  average_salary: {  $avg: "$salary"  }}},
{$sort:{average_salary:1}}
]).pretty()
```

SCENARIO 13 - EMPLOYEES PER DESIGNATION BASED ON EMPLOYMENT STATUS

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{"emp_id":{$nin:[null,""]}}},
{$group:{ _id: {status:"$employment_satus",pos:"$emp_position"}, total_employee: {  $addToSet:
"$emp_id"  }}},
{$project:{ status:1,  numberOfEmployees:{$size:"$total_employee"}}},
{$sort:{pos:1,status:1}}
])
```

SCENARIO 14 - 5 LATEST CLOSED COMPLAINTS

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{"resolution_status":{$in:["Closed"]}}},
{$project:{compId:"$complaint_id", compCloseDate:"$close_date"}},
{$group: {
_id: {compId:"$compId",compCloseDate:"$compCloseDate"},
count: {  $addToSet: "$compId"  }}},
{$sort:
{"_id.compCloseDate":-1}},
{$limit:5},
{$project: { _id:1}}])
```

SCENARIO 15 – MOST PREFERRED SCREENS BY THE CUSTOMERS

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{  "screen_no":{$nin:[null,""]}}},
{$group:{ _id: {screen:"$screen_no"}, customer: {   $addToSet: "$customer_id" }}},
{$project:{  "screen":1, used:{$size:"$customer"}}},
{$sort:{  used: -1}}
])
```

SCENARIO 16 – TOP HIGHEST GROSSING MOVIES

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{  "Revenue (Millions)":{$nin:[null,""]}}},
{$project:{  title:"$Title",  rank:"$rank_id",  revenue:"$Revenue (Millions)"}},
{$group:{ _id: {rank:"$rank",title:"$title"}, totalRevenue: {   $addToSet: "$revenue" }}},
{$sort:{  totalRevenue: -1 }},
{$limit:20},
{$project:{  "_id.title":1,  "totalRevenue":1}}])
```

SCENARIO 17 – TOP 5 MOST RATED MOVIES

QUERY & RESULT (SHELL EXECUTION):

```
db.smd.aggregate([
{$match:{  "Title":{$nin:[null,""]}}},
{$project:{  title:"$Title",  rating:"$Rating",  rank:"$rank_id",  cust:"$customer_id"}},
{$group:{ _id: {title:"$title"}, rating: {   $sum: "$rating" }, cust:{  $addToSet:"$cust" }}},
{$project:{  "_id.title":1, "rating": 1}},
{$sort:{  rating: -1}},
{$limit:5}])
```

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