

CSIS 3300-003 Group Project (Group 9)

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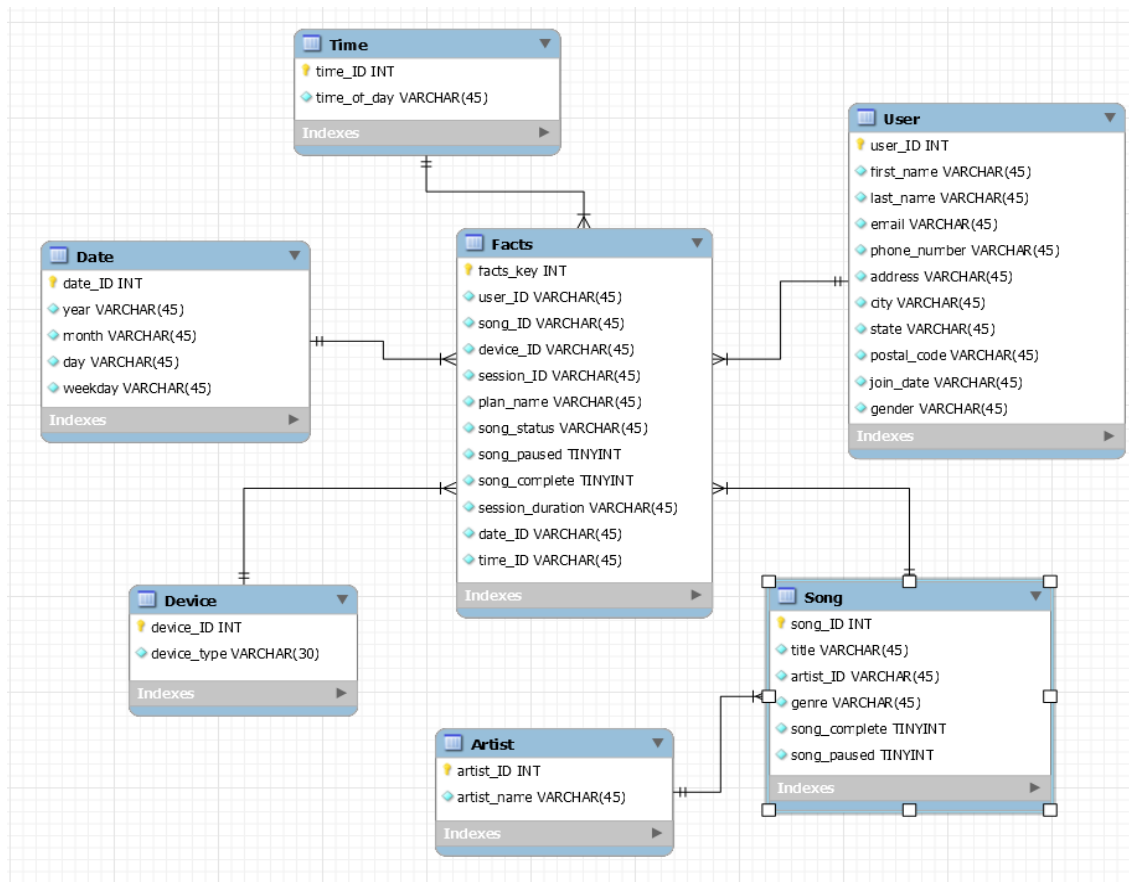
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SPOTIFY

Link to PowerPoint:

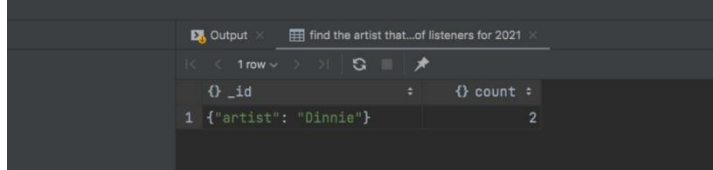
https://docs.google.com/presentation/d/1lozuGNJOP_Hv2WTK3Zvk5GqIvIcsthHo/edit?pli=1#slide=id.p1

Relational Schema:



5 Queries and Output:

```
16 //find the artist that has the most number of listeners for 2021
17
18 ✓ db.spotify.aggregate([
19   {$match: {"date.year": "2021"}},
20   {$group: {_id: {"artist": "$song.artist.name"}, count: {$sum: 1}}},
21   {$sort: {"count": -1}},
22   {$limit: 1}
23 ])
```



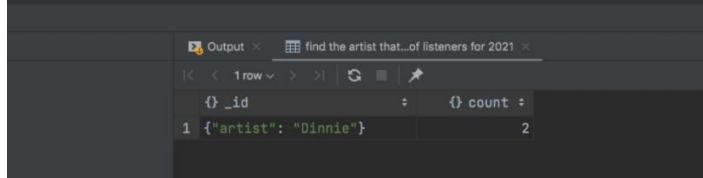
The screenshot shows the output of the MongoDB query. The output is a single row with the following data:

_id	count
{ "artist": "Dinnie" }	2

//which genre has the most listens in 2021

```
db.spotify.aggregate([
    {$match: {"date.year": "2021"}},
    {$group: {_id: {"genre": "$song.genre"}, count: {$sum: 1}}},
    {$sort: {"count": -1}},
    {$limit: 1}
])
```

```
16 //find the artist that has the most number of listeners for 2021
17
18 ✓ db.spotify.aggregate([
19   {$match: {"date.year": "2021"}},
20   {$group: {_id: {"artist": "$song.artist.name"}, count: {$sum: 1}}},
21   {$sort: {"count": -1}},
22   {$limit: 1}
23 ])
```



The screenshot shows the output of the MongoDB query. The output is a single row with the following data:

_id	count
{ "artist": "Dinnie" }	2

//find the artist that has the most number of listeners for 2021

```
db.spotify.aggregate([
    {$match: {"date.year": "2021"}},
    {$group: {_id: {"artist": "$song.artist.name"}, count: {$sum: 1}}},
    {$sort: {"count": -1}},
    {$limit: 1}
])
```

```

25 //find artists with 1,000,000 or more listeners in a month in 21
26 db.spotify.aggregate([
27   {$match: {"date.year": "2021", "date.month": "2"}},
28   {$group: {_id: {"artist": "$song.artist.name"}, count: {$sum: 1}}},
29   {$sort: {"count": -1}}
30 ])

```

Output × find artists with 1,000,000 or more listeners in a month in 21

	_id	count
1	{"artist": "Arny"}	1
2	{"artist": "Gilberta"}	1
3	{"artist": "Jason"}	1
4	{"artist": "Marilyn"}	1
5	{"artist": "Bridgette"}	1
6	{"artist": "Kendricks"}	1
7	{"artist": "Delphinia"}	1
8	{"artist": "Thorsten"}	1
9	{"artist": "Raimondo"}	1
10	{"artist": "Say"}	1
11	{"artist": "Raychel"}	1
12	{"artist": "Jillleen"}	1
13	{"artist": "Isabella"}	1
14	{"artist": "Micky"}	1

//find artists with 1,000,000 or more listeners in a month in 21

```

db.spotify.aggregate([
    {$match: {"date.year": "2021", "date.month": "2"}},
    {$group: {_id: {"artist": "$song.artist.name"}, count: {$sum: 1}}},
    {$sort: {"count": -1}}
])

```

```

31 //find the top 5 most played songs on 2020
32 db.spotify.aggregate([
33   {$match: {"date.year": "2020"}},
34   {$group: {_id: {"song": "$song.title"}, count: {$sum: 1}}},
35   {$sort: {"count": -1}},
36   {$limit: 5}
37 ])

```

Output × find the top 5 most played songs on 2020

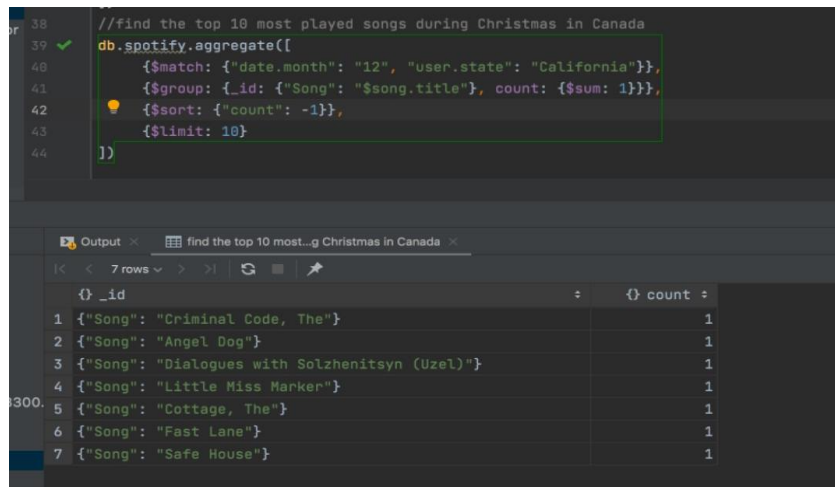
	_id	count
1	{"song": "Return to Snowy River (a.k.a. The Man From Snowy River II)"}	2
2	{"song": "Man Without a Face, The"}	1
3	{"song": "Thrill of It All, The"}	1
4	{"song": "Just Like Us"}	1
5	{"song": "Above the Street, Below the Water (Over gaden under vandet)"}	1

//find the top 5 most played songs on 2020

```

db.spotify.aggregate([
    {$match: {"date.year": "2020"}},
    {$group: {_id: {"song": "$song.title"}, count: {$sum: 1}}},
    {$sort: {"count": -1}},
    {$limit: 5}
])

```



//find the top 10 most played songs during Christmas in Canada

```
db.spotify.aggregate([
  {$match: {"date.month": "12", "user.state": "California"}},
  {$group: {_id: {"Song": "$song.title"}, count: {$sum: 1}}},
  {$sort: {"count": -1}},
  {$limit: 10}
])
```

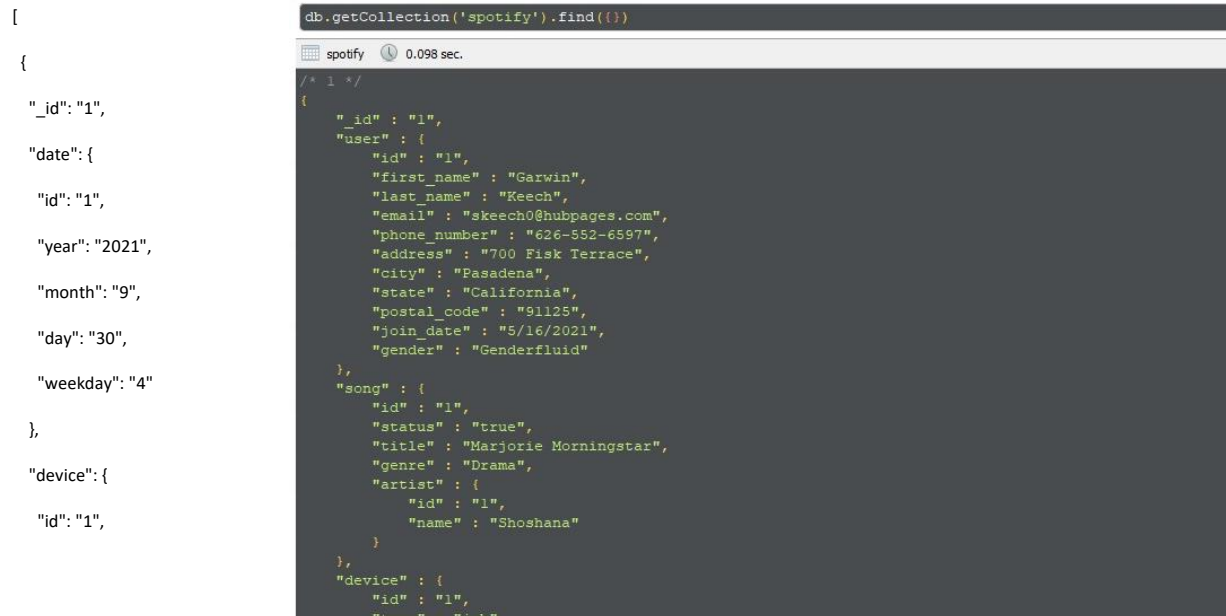
Connection Link to Database:

mongodb+srv://professor:nikhil@clusterccs3300.6zphd.mongodb.net/myFirstDatabase

Login: professor

Password: nikhil

MongoDB Sample Document



```
"type": "jcb"
},
"plan_name": "false",
"session_duration": "58",
"session_id": "1",
"song": {
  "id": "1",
  "status": "true",
  "title": "Marjorie Morningstar",
  "genre": "Drama",
  "artist": {
    "id": "1",
    "name": "Shoshana"
  }
},
"song_completed": "true",
"song_paused": "true",
"time": {
  "id": "1",
  "time_of_day": "1/5/2021"
},
"user": {
  "id": "1",
  "first_name": "Garwin",
  "last_name": "Keech",
  "email": "skeech0@hubpages.com",
  "phone_number": "626-552-6597",
  "address": "700 Fisk Terrace",
  "city": "Pasadena",
  "state": "California",
  "postal_code": "91125",
  "join_date": "5/16/2021",
  "gender": "Genderfluid"
}
}
]
```