ASSIGNMENT - 1

Ques 1.

You'll have to come up with SQL queries for the following database schema:

Artists (ArtistID: int, Sname: varchar(255), Location: varchar(255))
Tracks (trackID: int, artistID: int, Tname: varchar(255), length: int)

All primary keys are underlined. All foreign keys have the same name as the primary key that they are referencing. Database state for this schema is given below.

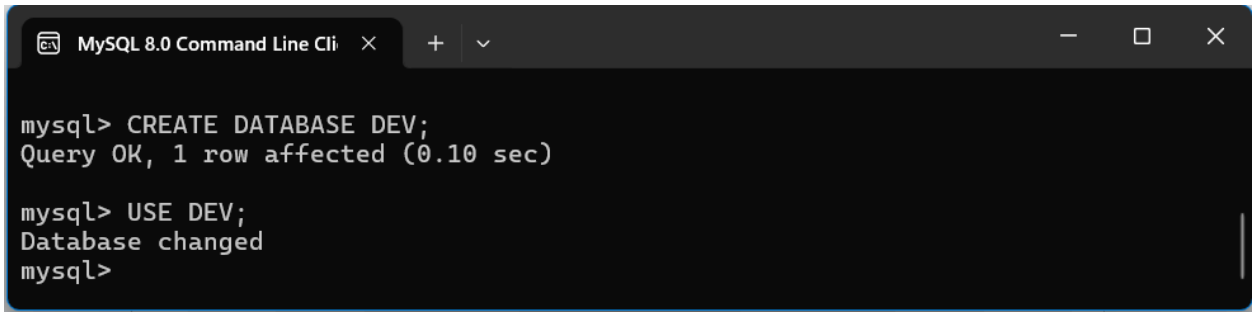
Artist State:

ArtistID	Sname	Location
1001	Alla Rakha Rehman	Chennai
1002	Kailas Kher	Delhi
1003	Rahul Dev Barman	Kolkata
1004	Lucky Ali	Mumbai

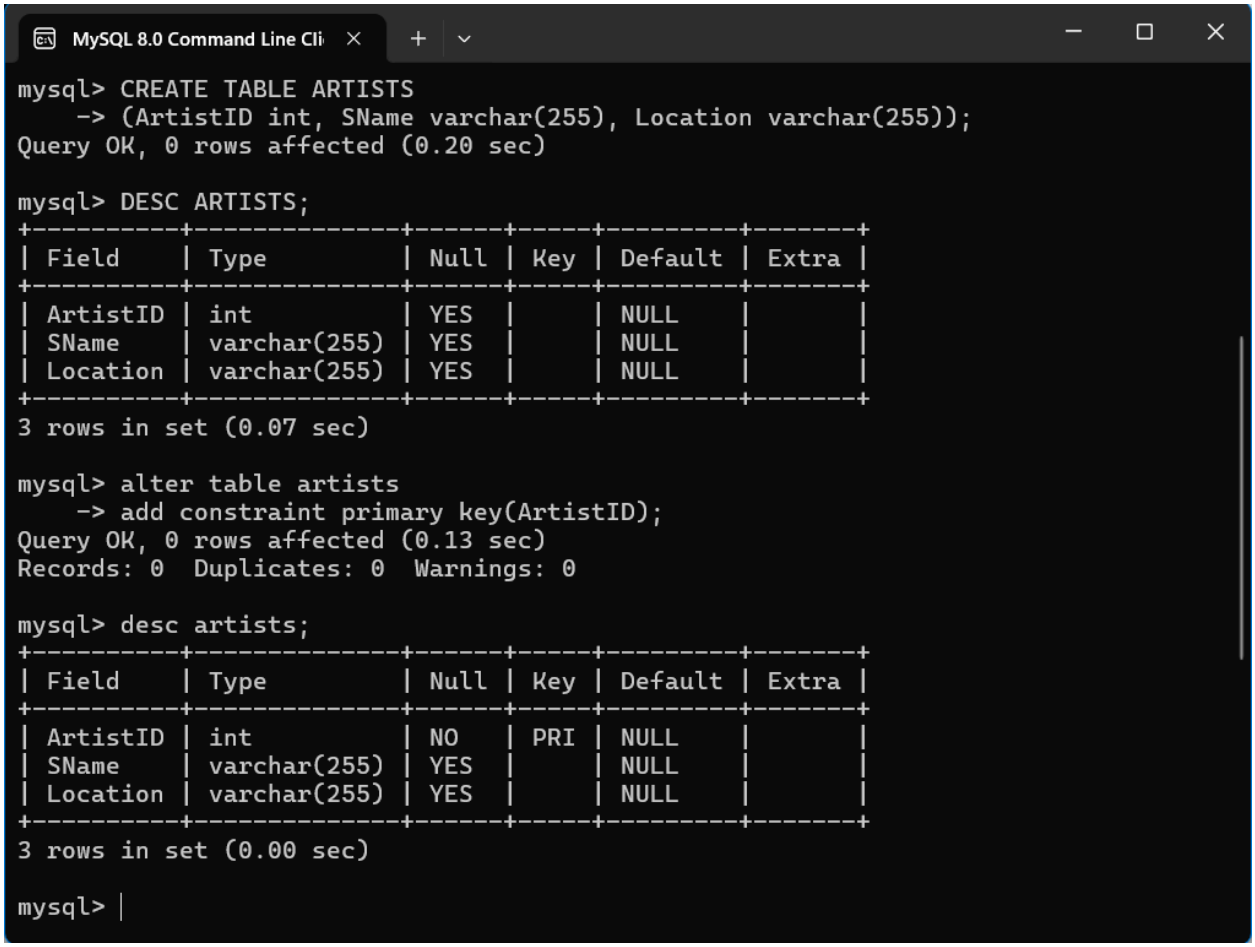
Tracks State:

TrackID	ArtistID	Tname	Length(min)
10	1001	Bande Matram	6
11	1002	Alla Ke Bande	10
12	1003	Raste Apni Jagah	12
13	1003	Kahi Door Jab	5
14	1001	Maa Tujhe Salaam	8
15	1002	Teri Dewani	6
16	1003	Ak Rasta Hai	7

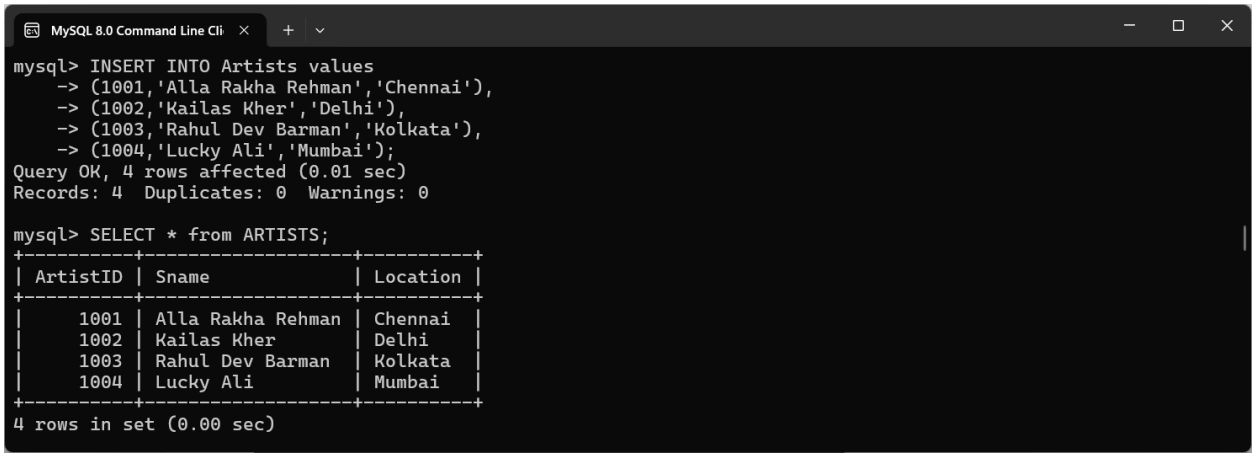
- **Creation and Use of Database**



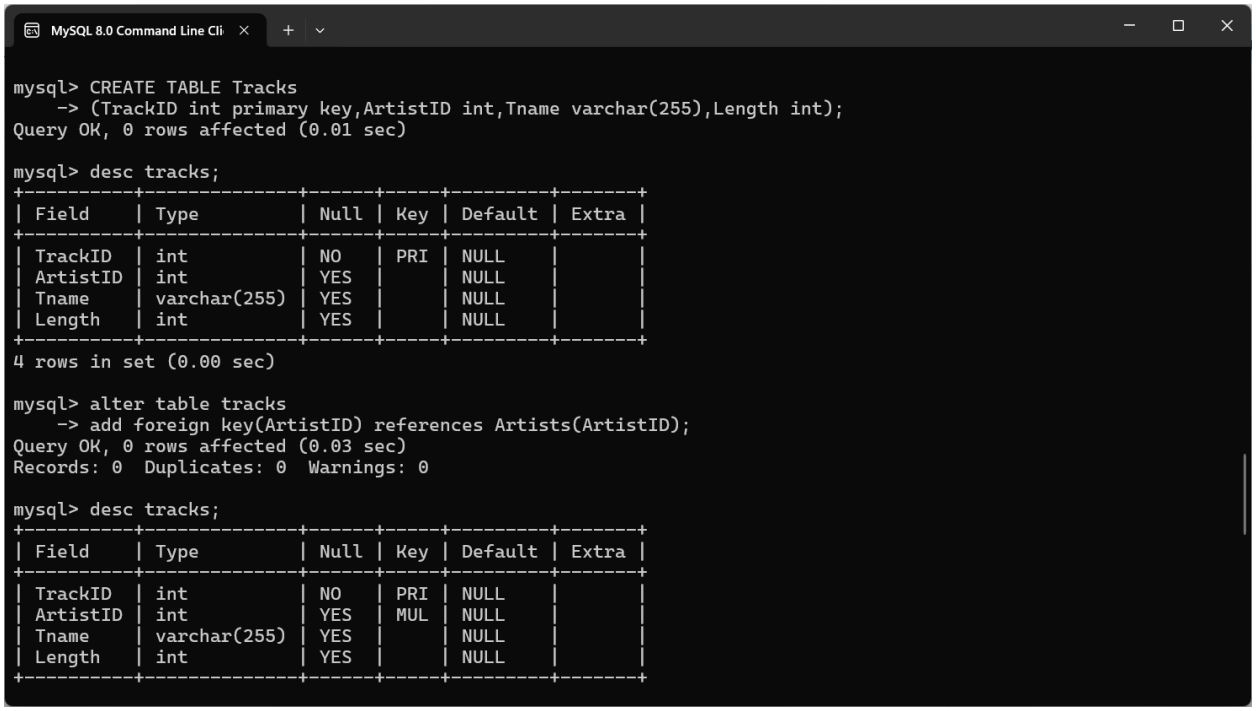
- **Creation of Table - ARTISTS**



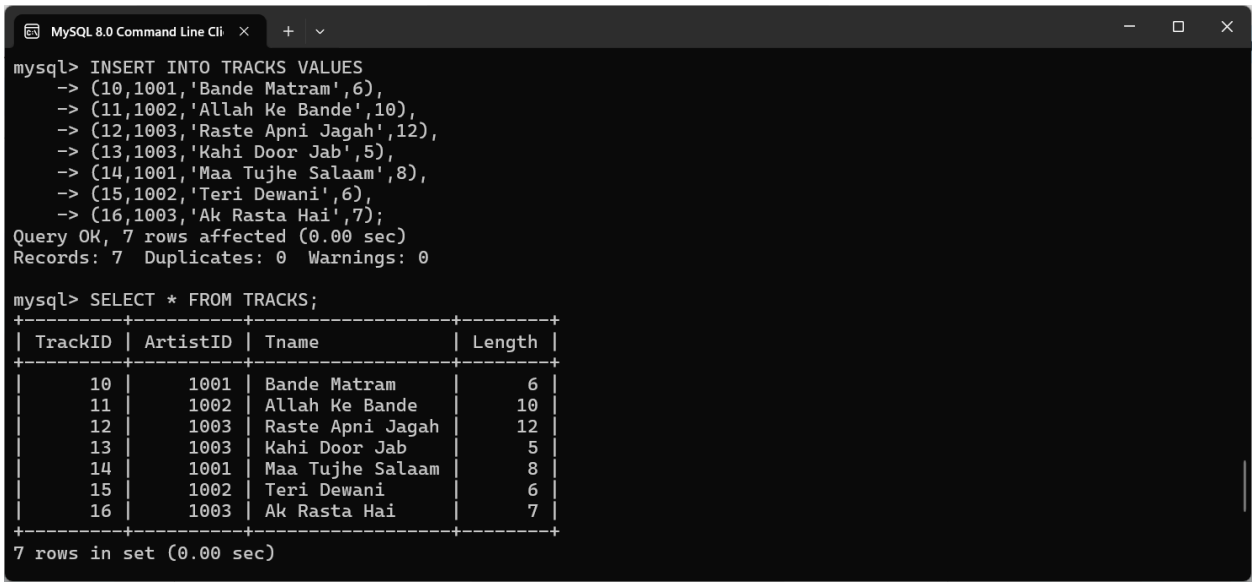
- **Insertion of records into the table - Artists**



- **Creation of Table - TRACKS**



- **Insertion of records into the table - Tracks**



Write SQL statements for the following queries :

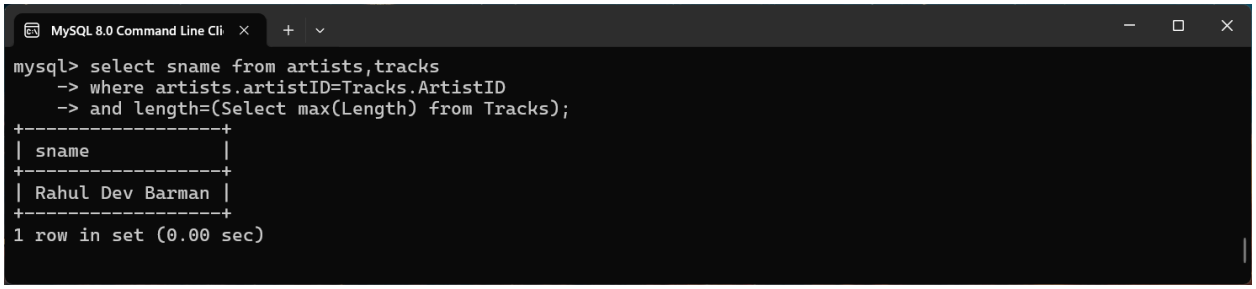
1. Find the names of all Tracks that are more than 10 minutes long.

2. Find the Artists (name) who have recorded more than two tracks.

3. Find the Artists (name) who have recorded a Track named “Bande Mataram”.

4. Find the Artists (name) who have not recorded any song.

5. Find the Artist (name) who has recorded the longest song.



ASSIGNMENT - 2

Ques 2

Consider the following relational schema. An employee can work in more than one department; the pct_timefiled of the Works relation shows the percentage of time that a given employee works in a given department.

Emp(eid: integer, ename: string, age: integer, salary: real)
Works(eid: integer, did: integer, pct_time: integer)
Dept(did: integer, dname: string, budget: real, managerid: integer)

Database state for the above schema is below.

Emp State

Eid	Ename	Age	Salary
1001	Sabeer Bhatia	60	50,000
1002	Pranav Mistry	65	55,000
1003	Sam Pitroda	50	60,000
1004	Mark Zukarbarge	50	35,000
1005	Larry Page	40	45,000
1006	Steve Ballmar	45	46,000
1007	Tim Cook	80	65,000

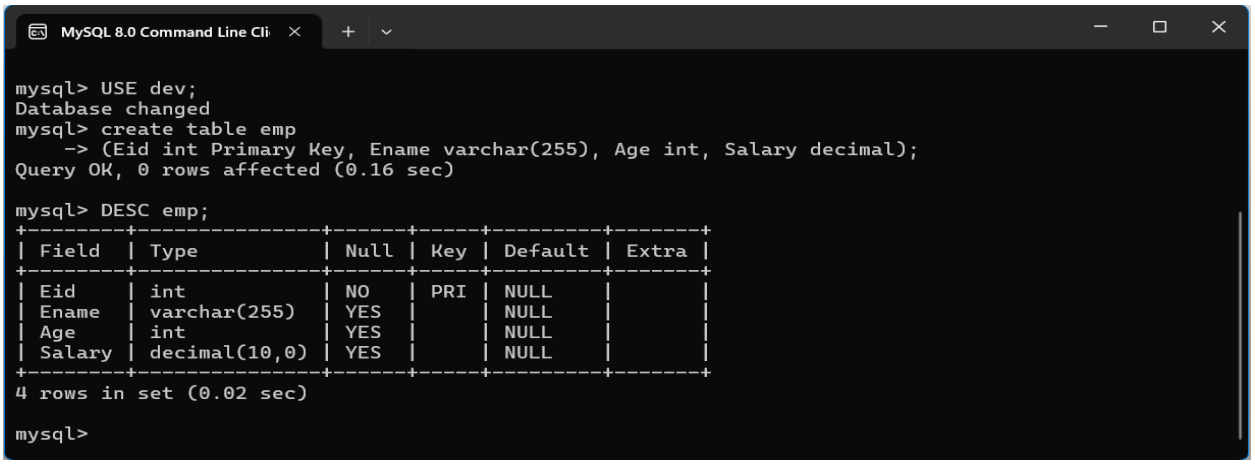
Works State

Eid	Did	Pct_time(percentage of time given in department)
1001	10	20
1002	20	30
1004	40	15
1005	40	50
1003	30	80
1006	60	35
1005	50	40
1001	20	15

Department State

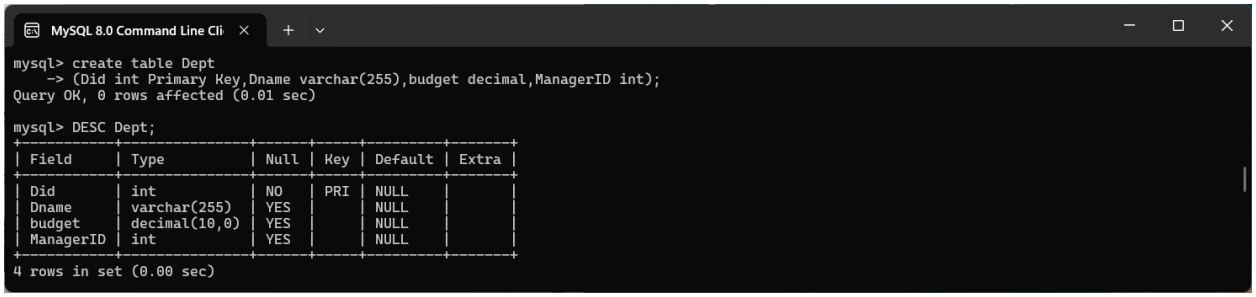
Did	Dname	budget	ManagerId
10	Hard ware	10,000	1001
20	Software	20,000	1002
30	Quality Assurance	30,000	1003
40	Development	15,000	1004
50	Human Resources	40,000	1005
60	Support	12,000	1006

Creation of Table - Emp

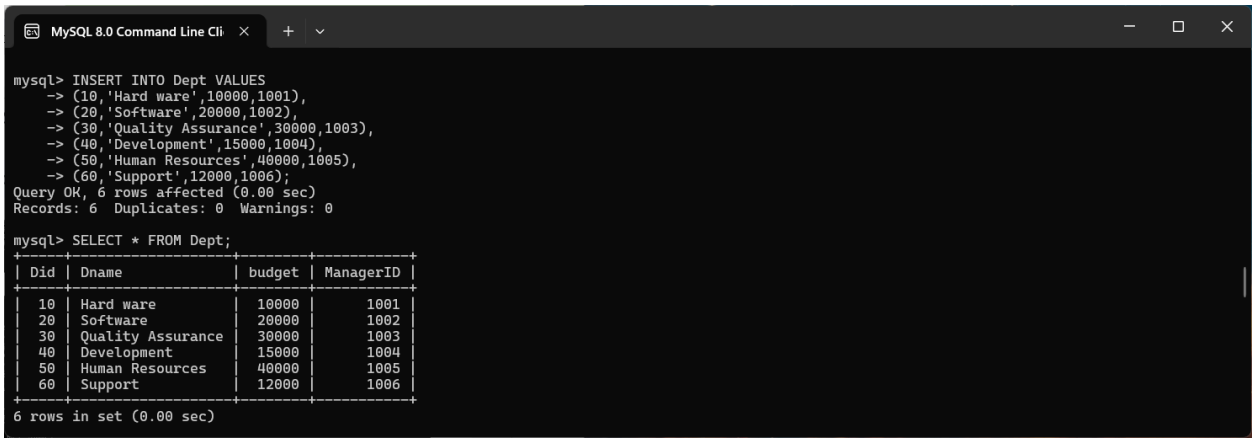


Insertion of records into the table - Emp

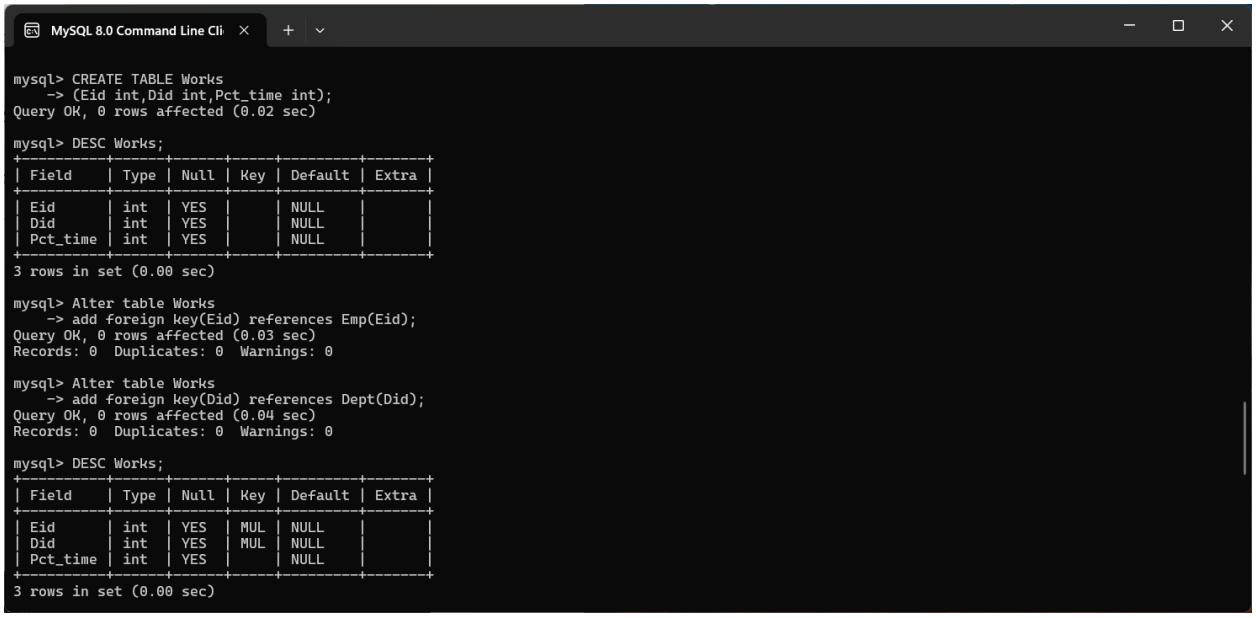
Creation of Table - Dept



Insertion of records into the table - Dept



Creation of Table - Works

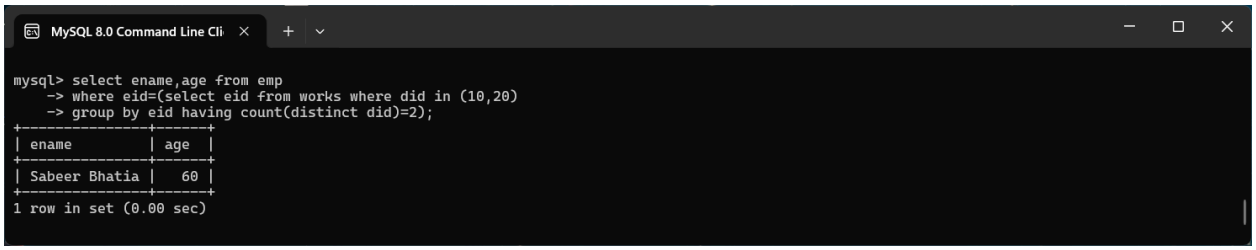


Insertion of records into the table - Works

Write SQL statements for the following queries :

1. Find the name of the employee whose name contains two ‘a’.

2. Print the names and ages of each employee who works in both the Hardware department and the Software department.



3. Print them together with the number of employees that work in that department.

4. Find the name of employees who do not manage any department.

5. Find the name of employees who work in the department with the largest budget.