

R.V. COLLEGE OF ENGINEERING

OBSERVATION / DATA SHEET

Date _____ Name Arusha Manjunath Raykar

Dept./Lab DBMS Class MCA-I Expt./No. 01

Title Music Database

Entity And attributes:-

1) Musician

Attributes: SSN, Name, Address, phonenumber

2) Instrument

Attributes: - Uniqueno, name, Musicalkey

3) Album

Attributes: - UniqueAlbumno, title, copyrightdate, format

4) Song

Attributes: - SongID, title, Author

Relationships:-

1) Musician plays instrument

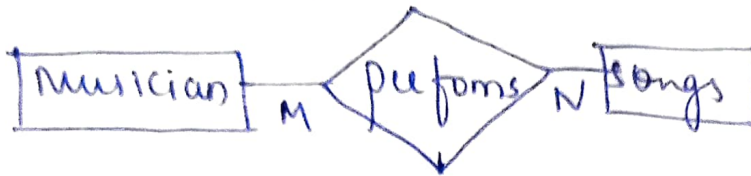


Signature of
Teacher incharge

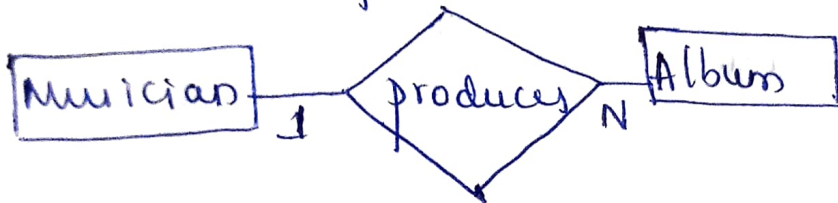
2) Album contains Songs



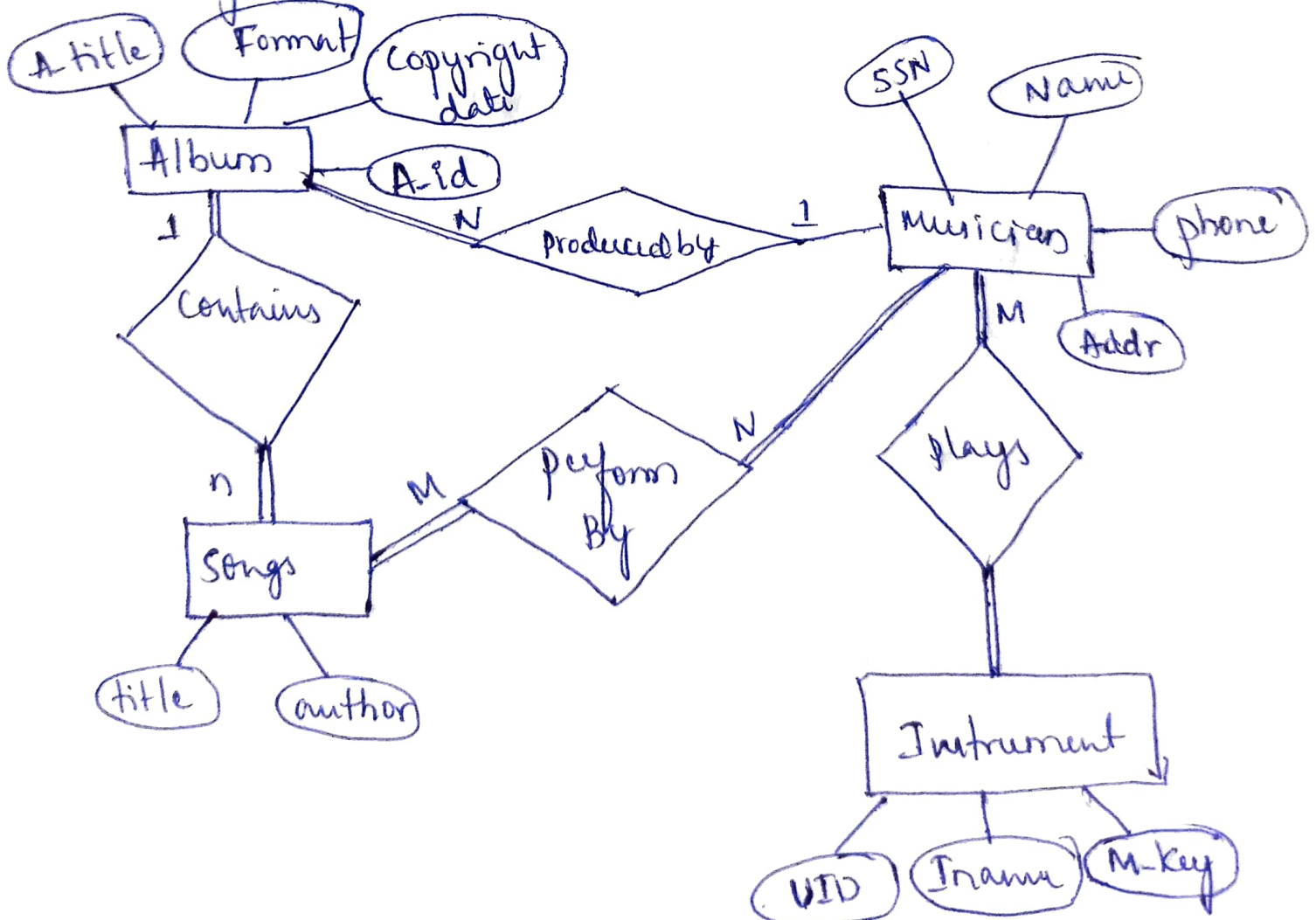
3) Musician performs Songs



4) Musician produces Album



E-R Diagram:-

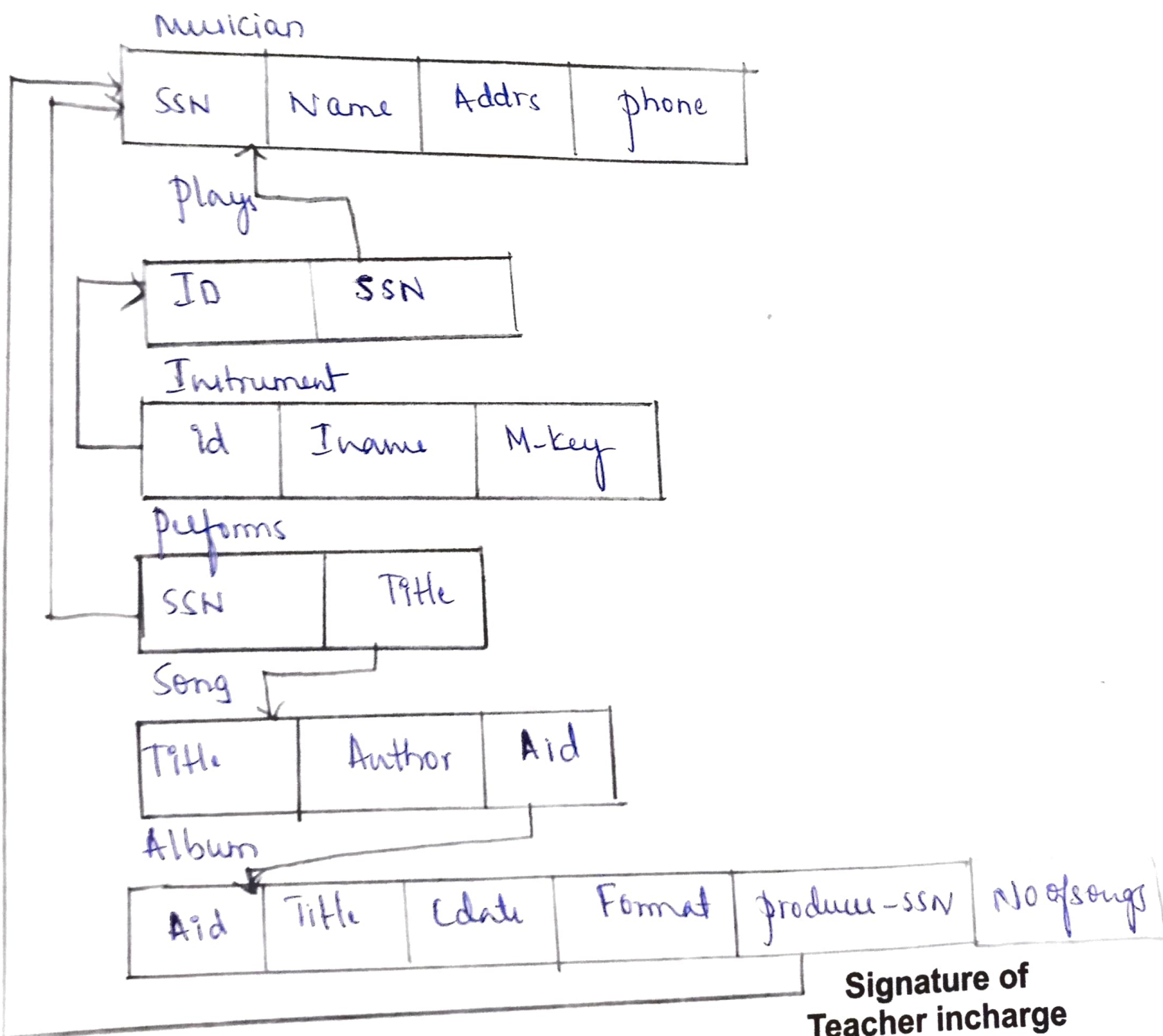


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Title _____

Relational Schema:



```
MariaDB [anusha]> select * from instrument;
```

```
+-----+-----+
| id   | name  |
+-----+-----+
| i100 | piano |
| i200 | flute |
| i300 | violin|
| i400 | guitar|
+-----+-----+
4 rows in set (0.00 sec)
```

```
MariaDB [anusha]> select * from musician;
```

```
+-----+-----+-----+-----+
| ssn  | name  | dob      | contactnumber |
+-----+-----+-----+-----+
| m100 | arun  | 0200-01-01 | 987654332 |
| m200 | amruta| 2000-01-01 | 987654332 |
| m300 | amruta| 1999-01-01 | 87654332  |
| m400 | deepika| 1999-11-01 | 87654332  |
+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
MariaDB [anusha]> select * from album;
```

```
+-----+-----+-----+-----+-----+-----+
| albumid | title          | copyright | format | ssn  | no_of_songs |
+-----+-----+-----+-----+-----+-----+
| a01     | krishna stotram | 0000-00-00 | c      | m100 | NULL |
| a02     | hare ram       | 1999-08-08 | d      | m100 | 4 |
| a03     | hare ram       | 1999-08-08 | d      | m100 | 5 |
| a05     | hare ram       | 1999-08-08 | d      | m100 | 2 |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)
```

```
MariaDB [anusha]> select * from play;
```

```
+-----+-----+
| ssn  | instrumentid |
+-----+-----+
| m100 | i100         |
| m100 | i200         |
| m100 | i300         |
| m100 | i400         |
| m200 | i400         |
| m400 | i400         |
+-----+-----+
6 rows in set (0.00 sec)
```

```
MariaDB [anusha]> select * from song;
```

```
+-----+-----+-----+-----+
| songid | title | author | albumid |
+-----+-----+-----+-----+
| s01    | srrama | rehman | a01     |
+-----+-----+-----+-----+
1 row in set (0.01 sec)
```

```
MariaDB [anusha]> select * from perform;
```

ERROR 1146 (42S02): Table 'anusha.perform' doesn't exist

```
MariaDB [anusha]> select * from performs;
```

```
+-----+-----+
| songid | ssn  |
+-----+-----+
| s100   | m100 |
| s200   | m100 |
| s300   | m100 |
| s400   | m100 |
+-----+-----+
4 rows in set (0.00 sec)
```

1)list musician name,title of the song which he has played the album in which song has occurred

```
MariaDB [anusha]> select m.name,s.title,a.title from musician m,performs p,album a,song s where m.ssn=p.ssn and p.ssn=a.ssn and s.albumid=a.albumid;
+-----+-----+-----+
| name | title | title |
+-----+-----+-----+
| arun | srrama | krishna stotram |
| arun | srrama | krishna stotram |
| arun | srrama | krishna stotram |
| arun | srrama | krishna stotram |
+-----+-----+-----+
4 rows in set (0.00 sec)
```

2)list the musician who have not produced any album

```
MariaDB [anusha]> select m.ssn,m.name from musician m where m.ssn not in(select m.ssn from musician m, album a where m.ssn=a.ssn);
+-----+-----+
| ssn | name |
+-----+-----+
| m200 | amruta |
| m300 | amruta |
| m400 | deepika |
+-----+-----+
3 rows in set (0.00 sec)
```

3)list the details of the song which are performed by more than 2 musicians

```
MariaDB [anusha]> select s.* from song s where s.songid in(select songid from performs group by songid having count(songid)>=2);
+-----+-----+-----+-----+
| songid | title | author | albumid |
+-----+-----+-----+-----+
| s300 | aaa | anusha | a01 |
| s400 | aaa | anusha | a01 |
+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

4)list the different instrument played by the musician and the average no of musicians who play the instrument

```
MariaDB [anusha]> select name,count(i.id),count(i.id)/(select count(*) from musician) as Average from instrument i,play p where i.id=p.instrumentid group by i.id;
```

name	count(i.id)	Average
piano	1	0.2500
flute	1	0.2500
violin	1	0.2500
guitar	3	0.7500

```
4 rows in set (0.00 sec)
```

5)Retreive album title produced by the producer who plays guitar as well as flute and has produced no of songs greater than the average songs produced by all producers

```
MariaDB [anusha]> select a.title from album a,play p,instrument i where a.ssn=p.ssn and p.instrumentid=i.id and i.name="flute" and exists(select a.title from album a,play p,instrument i where a.ssn = p.ssn and p.instrumentid=i.id and i.name="guitar") and a.ssn in (select ss from album where no_of_songs >= (select avg(no_of_songs) from album));
```

title
krishna stotram
hare ram
hare ram
hare ram

```
4 rows in set (0.00 sec)
```

6)list the details of the musician who can play all the instruments present

```
MariaDB [anusha]> select m.* from musician m,play p,instrument i where m.ssn=p.ssnMariaDB [anusha]> select m.* from musician m,play p,instrument i where m.ssn=p.ssn having count(p.instrumentid)=count(i.id);
```

ssn	name	dob	contactnumber
m100	arun	0200-01-01	987654332

```
1 row in set (0.00 sec)
```