

**אימן אלוהבאני 209138155**  
**אסלאם ברהם 318445616**

**הסכמה של בסיס הנתונים הראשוני**

Musician (  
    musician\_id: int(9) PK,  
    musician\_Name: varchar(50),  
    musician\_Email: varchar(225),  
    musician\_Namber\_Phone: int(10),  
    musician\_Type: varchar(50)  
);

Producer (  
    producer\_id: int(9) PK,  
    producer\_Name:varchar(50)  
);

Recording\_Technician (  
    recording\_Technician\_ID: int(9) PK,  
    recording\_Technician\_Name:varchar(100)  
);

a\_musical\_instruments (  
    a\_Musical\_Instrument\_Type: varchar(50) PK,  
    a\_Musical\_Instrument\_Maker: varchar(50),  
    musician\_id: int(9) FK  
);

```
Album (  
    album_ID:int PK,  
    album_name: varchar(50),  
    album_Date_Start: date,  
    album_Date_End: date,  
    album_Count_A_Musical_Scene: int,  
    producerid: int FK,  
);
```

```
Musical_Scene (  
a_Musical_Scene_Name: varchar(50) PK,  
    Detuail_Aother_Words: varchar(225),  
Detuail_Aother_Words: varchar(225),  
a_Musical_Scene_Lenght_Sec: int(20),  
a_Musical_Scene_Type: varchar(50),  
a_Musical_Scene_Date: date,  
Detuail_Recording_Technician: varchar(225),  
musician_id: int(9) FK,  
album_ID: int FK,  
a_Musical_Instrument_Type: varchar(50) FK,  
);
```

## הסכמה של בסיס הנתונים 3NF

Musician (  
    musician\_ID INT(9) PK,  
    musician\_Name VARCHAR(50),  
    musician\_Email VARCHAR(255),  
    musician\_Number\_Phone INT(10),  
    musician\_Type VARCHAR(50)  
);

Album (  
    album\_ID INT PK,  
    album\_Name VARCHAR(50),  
    album\_Date\_Start date,  
    album\_Date\_End date,  
    album\_Count\_a\_Musical\_Scene INT  
);

Producer (  
    producer\_ID INT(9) PK,  
    producer\_Name VARCHAR(50)  
);

Author\_Of\_Words (  
    author\_Of\_Words\_ID INT(9) PK,  
    author\_Of\_Words\_Name VARCHAR(50)  
);

Author\_Of\_Melody (  
    author\_Of\_Melody\_ID INT(9) PK,  
    author\_Of\_Melody\_Name VARCHAR(50)  
);

```
Recording_Technician (  
    recording_Technician_ID INT(9) PK,  
    recording_Technician_Name VARCHAR(100)  
);
```

```
A_Musical_Scene (  
    a_Musical_Scene_Name VARCHAR(50) PK,  
    author_Of_Words_ID INT(9) FK,  
    author_Of_Melody_ID INT(9) FK,  
    a_Musical_Scene_Length_sec INT(10),  
    a_Musical_Scene_Type VARCHAR(50),  
    a_Musical_Scene_Date date NOT NULL,  
    recording_Technician_ID INT(9) FK  
);
```

```
A_Musical_Instruments (  
    a_Musical_Instrument_Type VARCHAR(50) PK,  
    a_Musical_Instrument_Maker VARCHAR(50)  
);
```

```
Musician_And_Album (  
    musician_ID INT(9) FK,  
    album_ID INT FK  
);
```

```
Producer_And_Album (  
    album_ID INT UNSIGNED FK,  
    producer_ID INT(9) FK  
);
```

```
A_Musical_Scene_And_Album (  
    album_ID INT FK  
    a_Musical_Scene_Name VARCHAR(50) FK,  
);
```

```
A_Musical_Intruments_And_Musician (  
    musician_ID INT(9) FK,  
    a_Musical_Instrument_Type VARCHAR(50) FK,  
);
```

```
A_Musical_Scene_And_A_Musical_Instruments (  
    a_Musical_Scene_Name VARCHAR(50) FK,  
    a_Musical_Instrument_Type VARCHAR(50) FK,  
);
```