

Create SQL:

Create performer:

```
CREATE TABLE `Preformer` (\n  `ID_Musician` INT NOT NULL,\n  `Name` VARCHAR(256) NOT NULL,\n  `Skill` VARCHAR(256) NOT NULL,\n  `Phone` VARCHAR(256) NOT NULL,\n  `Address` VARCHAR(256) NOT NULL,\n  PRIMARY KEY (`ID_Musician`));
```

Create Inst:

```
CREATE TABLE `Inst` (\n  `I_ID` INT NOT NULL UNIQUE,\n  `Brand` VARCHAR(256) NOT NULL,\n  `Type` VARCHAR(256) NOT NULL,\n  PRIMARY KEY (`I_ID`, `Brand`, `Type`))
```

Create Songs:

```
CREATE TABLE `Songs` (\n  `T_ID` INT NOT NULL,\n  `Name` VARCHAR(256) NOT NULL,\n  `Music_Comp` VARCHAR(256) NULL,\n  `Lyrics_Comp` VARCHAR(256) NULL,\n  `Length` INT NOT NULL,\n  `Date` VARCHAR(256) NOT NULL,\n  `Genre` VARCHAR(256) NOT NULL,\n  `Tech` VARCHAR(256) NOT NULL,\n  PRIMARY KEY (`T_ID`));
```

Create Prod:

```
CREATE TABLE `Prod` (\n  `P_ID` INT NOT NULL,\n  `Name` VARCHAR(256) NOT NULL,\n  PRIMARY KEY (`P_ID`));
```

Create Preformer_Inst:

```
CREATE TABLE `Preformer_Inst` (\n
```

```

`M_ID` INT NOT NULL,\
`I_ID` INT NOT NULL,\
PRIMARY KEY (`I_ID`, `M_ID`),\
INDEX `MI_mID_idx` (`M_ID` ASC) VISIBLE,\
CONSTRAINT `MI_mID`\
FOREIGN KEY (`M_ID`)\
REFERENCES `Preformer` (`ID_Musician`)\
ON DELETE NO ACTION\
ON UPDATE NO ACTION,\
CONSTRAINT `MI_iID`\
FOREIGN KEY (`I_ID`)\
REFERENCES `Inst` (`I_ID`)\
ON DELETE NO ACTION\
ON UPDATE NO ACTION);

```

Create Preformer_Songs:

```

CREATE TABLE `Preformer_Songs` (\
`M_ID` INT NOT NULL,\
`T_ID` INT NOT NULL,\
PRIMARY KEY (`M_ID`, `T_ID`),\
INDEX `MT_tID_idx` (`t_ID` ASC) VISIBLE,\
CONSTRAINT `MT_mID`\
FOREIGN KEY (`M_ID`)\
REFERENCES `Preformer` (`ID_Musician`)\
ON DELETE NO ACTION\
ON UPDATE NO ACTION,\
CONSTRAINT `MT_tID`\
FOREIGN KEY (`T_ID`)\
REFERENCES `Songs` (`T_ID`)\
ON DELETE NO ACTION\
ON UPDATE NO ACTION);

```

Create Album_Songs:

```

CREATE TABLE `Album_Songs` (\
`T_ID` INT NOT NULL,\
`A_ID` INT NOT NULL,\
PRIMARY KEY (`T_ID`, `A_ID`),\

```

```

INDEX `AT_aID_idx` (`A_ID` ASC) VISIBLE,\
CONSTRAINT `AT_tID`\
FOREIGN KEY (`T_ID`) \
REFERENCES `Songs` (`T_ID`) \
ON DELETE NO ACTION\
ON UPDATE NO ACTION,\
CONSTRAINT `AT_aID`\
FOREIGN KEY (`A_ID`) \
REFERENCES `Albums` (`A_ID`) \
ON DELETE NO ACTION\
ON UPDATE NO ACTION);

```

Create Album_Prod:

```

CREATE TABLE `Album_Prod` (\
`A_ID` INT NOT NULL,\
`P_ID` INT NOT NULL,\
PRIMARY KEY (`A_ID`, `P_ID`),\
INDEX `AP_pID_idx` (`P_ID` ASC) VISIBLE,\
CONSTRAINT `AP_aID`\
FOREIGN KEY (`A_ID`) \
REFERENCES `albums` (`A_ID`) \
ON DELETE NO ACTION\
ON UPDATE NO ACTION,\
CONSTRAINT `AP_pID`\
FOREIGN KEY (`P_ID`) \
REFERENCES `prod` (`P_ID`) \
ON DELETE NO ACTION\
ON UPDATE NO ACTION)

```

Fill SQL:

Fill Preformer:

```

INSERT INTO `Preformer` (`ID_musician`, `Name`, `Skill`, `Phone`,
`Address`) VALUES\
(1, 'Marshmello', '1', '1-111-234', 'US'),\
(2, 'Blink-182', '2', '1-234-652', 'US'),\

```

```
(3, 'Pixies', '2', '1-432-566', 'US'),\
(4, 'Kesha', '1', '1-324-643', 'US'),\
(5, 'Pitbull', '0', '1-432-654', 'US'),\
(6, 'Madonna', '0', '1-749-234', 'US'),\
(7, 'Bastille', '2', '44-234-743', 'UK'),\
(8, 'ODESZA', '1', '1-532-754', 'US'),\
(9, 'WYNNE', '0', '1-643-830', 'US'),\
(10, 'Mansionair', '0', '61-321-964', 'AU'),\
(11, 'Dan Smith', '0', '44-234-743', 'UK'),\
(12, 'Madonna', '0', '61-593-9532', 'AU')
```

Fill Songs:

```
INSERT INTO `Songs` (`T_ID`, `Name`, `Music_Comp`, `Lyrics_Comp`,
`Length`, `Date`, `Genre`, `Tech`) VALUES\
(1, 'Summer', 'Marshmello', 'NULL', 171, '2017-01-09', 'Electronic',
'Daniel Malikier'),\
(2, 'Happier', 'Marshmello', 'Dan Smith', 223, '2018-09-24', 'Electronic',
'Mercedes Bryce Morgan'),\
(3, 'Dammit', 'Mark Hoppus', 'Tom DeLonge', 165, '1997-09-23', 'Rock',
'Mark Trombino'),\
(4, 'Hey', 'Joey Santiago', 'Black Francis', 210, '1988-11-02', 'Rock',
'Gil Norton'),\
(5, 'TikTok', 'Benny Blanco', 'Kesha Sebert', 200, '2009-08-07', 'Pop',
'Benny Blanco'),\
(6, 'Dinosaur', 'Benny Blanco', 'Kesha Sebert', 175, '2010-01-01', 'Pop',
'Benny Blanco'),\
(7, 'Timber', 'Benny Blanco', 'Kesha Sebert', 204, '2013-10-06', 'Pop',
'Dr Luke'),\
(8, 'Boy', 'ODESZA', 'WYNNE', 183, '2017-09-08', 'Electronic', 'ODESZA'),\
(9, 'Pompeii', 'ODESZA', 'Dan Smith', 203, '2012-12-12', 'Electronic',
'Mercedes Bryce Morgan'),\
(10, 'Vogue', 'Shep Pettibone', 'Madonna', 290, '1990-03-27', 'Pop', 'Shep
Pettibone')
```

Fill albums:

```
INSERT INTO `albums` (`A_ID`, `Name`, `Start_Date`, `End_Date`,
`Songs_Amount`) VALUES\
```

```
(1, 'Joytime', '2017-01-08', '2018-09-25', 2),\
(2, 'Happier', '2018-09-24', '2018-09-25', 1),\
(3, 'Buddha', '1997-09-22', '1997-09-23', 1),\
(4, 'Doolittle', '1988-11-01', '1988-11-02', 1),\
(5, 'Animal', '2009-08-06', '2013-10-06', 3),\
(6, 'Timber', '2013-10-05', '2013-10-06', 1),\
(7, 'Loyal', '2017-09-07', '2017-09-08', 1),\
(8, 'Pompeii', '2012-12-10', '2012-12-12', 1),\
(9, 'VS', '2018-01-07', '2018-01-09', 2),\
(10, 'Vogue', '1990-03-25', '1990-03-27', 1),\
(11, 'Joytime II', '2019-01-08', '2019-09-25', 1);
```

Fill inst:

```
INSERT INTO `inst` (`I_ID`, `Brand`, `Type`) VALUES\
(1, 'Arturia', 'Synth'),\
(2, 'Korg', 'Synth'),\
(3, 'Yamaha', 'Piano'),\
(4, 'Gibson', 'Guitar'),\
(5, 'Ludwig', 'Drums'),\
(6, 'Fender', 'Bass'),\
(7, 'LP', 'Conga'),\
(8, 'Tycoon', 'Djemba'),\
(9, 'Meinl', 'Cajon'),\
(10, 'Kala', 'Ukelele');
```

Fill prod:

```
INSERT INTO `prod` (`P_ID`, `Name`) VALUES\
(1, 'Daniel Malikier'),\
(2, 'Mercedes Bryce Morgan'),\
(3, 'Quincy Jones'),\
(4, 'Dr Luke'),\
(5, 'George Martin'),\
(6, 'Shep Pettibone'),\
(7, 'Jay-Z'),\
(8, 'Benny Blanco'),\
(9, 'Gil Norton'),\
(10, 'Mark Trombino');
```

Fill Preformer_ins:

```
INSERT INTO `Preformer_inst` (`M_ID`, `I_ID`) VALUES\
(1,1),\
(1,8),\
(2,4),\
(2,5),\
(2,6),\
(3,3),\
(3,4),\
(3,5),\
(3,6),\
(4,10),\
(7,4),\
(7,5),\
(7,7),\
(7,8),\
(7,9),\
(8,2),\
(8,8);
```

Fill Preformer_Songs:

```
(1,1),\
(1,2),\
(7,2),\
(2,3),\
(3,4),\
(4,5),\
(4,6),\
(4,7),\
(5,7),\
(8,8),\
(9,8),\
(10,8),\
(7,9),\
(8,9),\
(6,10);
```

Fill album_Songs:

```
(1,1), \
(2,1), \
(2,2), \
(3,3), \
(4,4), \
(5,5), \
(6,5), \
(7,5), \
(7,6), \
(8,7), \
(9,8), \
(2,9), \
(9,9), \
(10,10), \
(1,11);
```

Fill album_prod:

```
(1,1), \
(2,2), \
(2,3), \
(3,10), \
(4,9), \
(5,8), \
(5,5), \
(5,4), \
(6,8), \
(7,8), \
(8,7), \
(9,2), \
(10,3), \
(10,6)
```

Q1:

```
select count(*) from albums where End_Date > '?' AND End_Date < '?'
```

Q2.1:

```
select * from Preformer where Name Like '%?%';
```

Q2.2:

```
select count(*) from Songs as t join Preformer_Songs as m on  
m.T_ID = t.T_ID where M_ID = ? and t.Date > '?' and t.Date < '?';
```

Q3.1:

```
select * from Preformer where Name Like '%?%';
```

Q3.2:

```
select count(*) from albums as ab join (select A_ID from( (select * from  
Album_Songs) as a INNER JOIN\  
(select * from Preformer_Songs where Preformer_Songs.M_ID = ?) as b\  
on a.T_ID = b.T_ID) group by A_ID ) as c on ab.A_id = c.A_ID where  
End_Date > '?' and End_Date < '?' ;
```

Q4.1:

```
SELECT * FROM inst;
```

Q4.2:

```
SELECT count(*) from (  
(SELECT * FROM Preformer_Inst where I_ID = ? ) as a join Preformer_Songs  
as b  
on a.M_ID = b.M_ID );
```

Q5.1:

```
SELECT * FROM albums where Name Like '%?%';
```

Q5.2:

```
select * from Inst as i join\  
(select I_ID from Preformer_Inst as mi join\  
(select M_ID from Album_Songs as a join Preformer_Songs as b on a.T_ID =  
b.T_ID where a.A_ID = ?)\  
as mb on mi.M_ID = mb.M_ID) as b on i.I_ID = b.I_ID ;
```

Q6.1:

```
SELECT * FROM Prod;
```


Q6.2:

```
select count(*) from (
(SELECT * FROM album_prod where P_ID = ?) as a join albums as b on a.A_ID
= b.A_ID )
where End_Date > '?' and End_Date < '?';
```

Q7.1:

```
SELECT * FROM Inst;
```

Q7.2:

```
SELECT count(*) from (
(SELECT * FROM Preformer_inst where I_ID = ?) as a join Preformer_Songs as
b
on a.M_ID = b.M_ID);
```

Q8:

```
SELECT COUNT(*) FROM (SELECT * FROM Preformer JOIN Preformer_Songs ON
id_musician = M_ID group by M_ID) AS b;
```

Q9.1:

```
SELECT * FROM Songs;
```

Q9.2:

```
select count(*) from Preformer_Songs where T_ID = ? ;
```

Q9.3:

```
select * from Preformer_Songs where T_ID = ?
```

Q10:

```
SELECT * FROM Songs;
```

Q11:

```
select * from Songs where Date > '?' AND Date < '?';
```

Q12:

```
select * from Albums where End_Date = (select min(End_Date) from albums);
```

Q13.1:

```
SELECT * FROM Songs
```

Q13.2:

```
select count(*) from Album_Songs where T_ID = ?";
```

Q14.1:

```
SELECT * FROM Songs;
```

Q14.2:

```
SELECT * FROM Albums;
```

Q14.3:

```
select count(*) from Songs as a join (select * from Album_Songs where  
a_ID = ?)  
as b on a.T_ID = b.T_ID where Tech = '?';
```

Q15.1:

```
SELECT * FROM Preformer;
```

Q15.2:

```
select count(*) from Songs as a join (select * from Preformer_Songs where  
M_ID = ?) as b on a.T_ID = b.T_ID group by Genre;
```