***Lab-5***

***Create movie\_characters table :***

CREATE TABLE movie\_characters (

Character\_ID int(11) NOT NULL PRIMARY KEY,

Character\_Name varchar(50) DEFAULT NULL,

Age int(11) DEFAULT NULL

);

***Data insert Query into movie\_characters table:***

INSERT INTO movie\_characters VALUES(1, 'Apu', 7),

INSERT INTO movie\_characters VALUES(2, 'Durga', 10),

INSERT INTO movie\_characters VALUES(3, 'Harihar', 42),

INSERT INTO movie\_characters VALUES(4, 'Sarbajaya', 35),

INSERT INTO movie\_characters VALUES(5, 'Ramesh', 28),

INSERT INTO movie\_characters VALUES(6, 'Hemnalini', 25),

INSERT INTO movie\_characters VALUES(7, 'Nalinaksha', 30),

INSERT INTO movie\_characters VALUES(8, 'Kamala', 20),

INSERT INTO movie\_characters VALUES(9, 'Shikha', 21),

INSERT INTO movie\_characters VALUES(10, 'Apratim', 26),

INSERT INTO movie\_characters VALUES (11, 'Feluda', 25),

INSERT INTO movie\_characters VALUES (12, 'Maganlal Meghraj', 35),

INSERT INTO movie\_characters VALUES (13, 'Jatayu', 45),

INSERT INTO movie\_characters VALUES (14, 'Topshe', 18),

INSERT INTO movie\_characters VALUES (15, 'Ruku', 6),

INSERT INTO movie\_characters VALUES (16, 'Faruk', 22),

INSERT INTO movie\_characters VALUES (17, 'Bithi', 19),

INSERT INTO movie\_characters VALUES (18, 'Sathi', 24),

INSERT INTO movie\_characters VALUES (19, 'Lalon', NULL),

INSERT INTO movie\_characters VALUES (20, 'Kaluah', 25),

INSERT INTO movie\_characters VALUES (21, 'Siraj Saain', 45),

INSERT INTO movie\_characters VALUES (22, 'Komli', 25),

INSERT INTO movie\_characters VALUES (23, 'Subir Banerjee', NULL),

INSERT INTO movie\_characters VALUES (24, 'Ashima', 24),

INSERT INTO movie\_characters VALUES (25, 'Rashmoni', NULL),

INSERT INTO movie\_characters VALUES (26, 'Somalata', 24),

INSERT INTO movie\_characters VALUES (27, 'Chaitali', 18),

INSERT INTO movie\_characters VALUES (28, 'Byomkesh Bakshi', 26),

INSERT INTO movie\_characters VALUES (29, 'Ait', 27),

INSERT INTO movie\_characters VALUES (30, 'Malati', 16),

INSERT INTO movie\_characters VALUES (31, 'Debkumar', 50),

INSERT INTO movie\_characters VALUES (32, 'Doctor Anukul', 45),

INSERT INTO movie\_characters VALUES (33, 'Prabhat', 27),

INSERT INTO movie\_characters VALUES (34, 'Satyabati', 22),

INSERT INTO movie\_characters VALUES (35, 'Anadi Babu', 55),

INSERT INTO movie\_characters VALUES (36, 'PK', NULL),

INSERT INTO movie\_characters VALUES (37, 'Jaggu', 26),

INSERT INTO movie\_characters VALUES (38, 'Sarfaraz', 29),

INSERT INTO movie\_characters VALUES (39, 'Tapasvi Maharaj', 50);

***Create movie\_character\_relationship Table:***

CREATE TABLE Movie\_Character\_Relationship (

Character\_ID int NOT NULL,

Movie\_ID int NOT NULL,

FOREIGN KEY (Character\_ID) REFERENCES Movie\_Characters(Character\_ID),

FOREIGN KEY (Movie\_ID) REFERENCES Movie(Movie\_ID),

CONSTRAINT CombinePrimaryKey PRIMARY KEY (Character\_ID, Movie\_ID)

);

***Data insert Query into movie\_character\_relationship Table:***

INSERT INTO movie\_character\_relationship VALUES(1,1);

INSERT INTO movie\_character\_relationship VALUES(2 ,1);

INSERT INTO movie\_character\_relationship VALUES(3, 1);

INSERT INTO movie\_character\_relationship VALUES(4 ,1);

INSERT INTO movie\_character\_relationship VALUES(5 ,2);

INSERT INTO movie\_character\_relationship VALUES(6 ,2);

INSERT INTO movie\_character\_relationship VALUES(7, 2);

INSERT INTO movie\_character\_relationship VALUES(8 ,2);

INSERT INTO movie\_character\_relationship VALUES(9, 3);

INSERT INTO movie\_character\_relationship VALUES(10, 3);

INSERT INTO movie\_character\_relationship VALUES(11, 4);

INSERT INTO movie\_character\_relationship VALUES(12, 4);

INSERT INTO movie\_character\_relationship VALUES(13, 4);

INSERT INTO movie\_character\_relationship VALUES(14, 4);

INSERT INTO movie\_character\_relationship VALUES(15 ,4);

INSERT INTO movie\_character\_relationship VALUES(16 ,5);

INSERT INTO movie\_character\_relationship VALUES(17 ,5);

INSERT INTO movie\_character\_relationship VALUES(18 ,5);

INSERT INTO movie\_character\_relationship VALUES(19 ,6);

INSERT INTO movie\_character\_relationship VALUES(20 ,6);

INSERT INTO movie\_character\_relationship VALUES(21 ,6);

INSERT INTO movie\_character\_relationship VALUES(22 ,6);

INSERT INTO movie\_character\_relationship VALUES(23 ,7);

INSERT INTO movie\_character\_relationship VALUES(24 ,7);

INSERT INTO movie\_character\_relationship VALUES(25 ,8);

INSERT INTO movie\_character\_relationship VALUES(26 ,8);

INSERT INTO movie\_character\_relationship VALUES(27 ,8);

INSERT INTO movie\_character\_relationship VALUES(28 ,9);

INSERT INTO movie\_character\_relationship VALUES(28 ,10);

INSERT INTO movie\_character\_relationship VALUES(29 ,9);

INSERT INTO movie\_character\_relationship VALUES(29 ,10);

INSERT INTO movie\_character\_relationship VALUES(30 ,9);

INSERT INTO movie\_character\_relationship VALUES(31 ,9);

INSERT INTO movie\_character\_relationship VALUES(32 ,9);

INSERT INTO movie\_character\_relationship VALUES(33 ,10);

INSERT INTO movie\_character\_relationship VALUES(34 ,9);

INSERT INTO movie\_character\_relationship VALUES(34 ,10);

INSERT INTO movie\_character\_relationship VALUES(35 ,10);

INSERT INTO movie\_character\_relationship VALUES(36 ,11);

INSERT INTO movie\_character\_relationship VALUES(37 ,11);

INSERT INTO movie\_character\_relationship VALUES(38 ,11);

INSERT INTO movie\_character\_relationship VALUES(39 ,11);

***Level-1***

***Query-1:*** Find the name and age of all the movie-characters who are not teenagers.

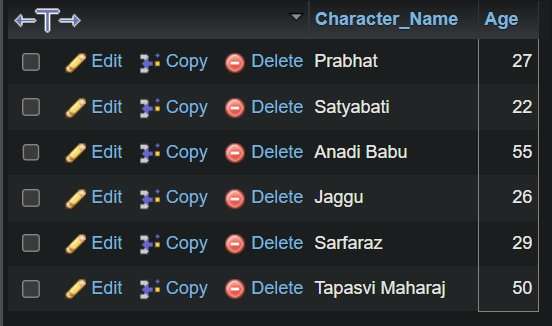
***SQL:***

SELECT Character\_Name,Age FROM movie\_characters WHERE age>19 OR age<13;

***Output:***

******

******

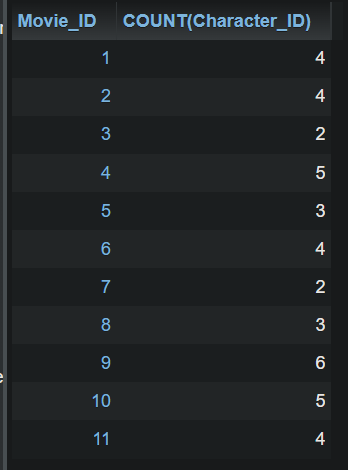
******

***Query-2:*** *Find the movie ID of all the movies and number of movie-characters in each movie.*

***SQL:***

**SELECT Movie\_ID,COUNT(Movie\_ID) AS No\_Of\_Character FROM movie\_character\_relationship GROUP BY Movie\_ID;**

***Output:***

****

**Query-3*:*** *Find the movie name of all movies and the number of movie-characters in each movie.*

**SQL:**

*SELECT Movie\_Name,COUNT(Character\_ID) AS No\_of\_Characters FROM movie\_character\_relationship,movie WHERE movie.Movie\_ID=movie\_character\_relationship.Movie\_ID GROUP BY movie\_character\_relationship.Movie\_ID;*

*OR,*

*SELECT Movie\_Name, COUNT(Movie\_ID) as No\_Of\_characters FROM movie\_character\_relationship JOIN movie USING (Movie\_ID) GROUP BY Movie\_ID;*

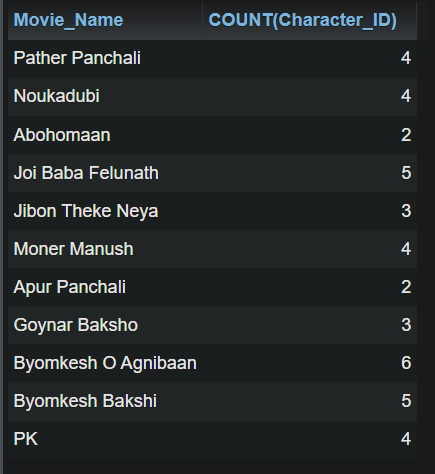
**Or,**

*SELECT Movie\_Name,No\_Of\_character FROM (SELECT Movie\_ID,COUNT(Movie\_ID) AS No\_Of\_character FROM movie\_character\_relationship GROUP BY Movie\_ID) AS character\_relation, movie WHERE movie.Movie\_ID=character\_relation.Movie\_ID;*

*Or,*

*SELECT Movie\_Name, t.cn FROM (SELECT Movie\_ID,COUNT(Character\_ID) AS cn FROM movie\_character\_relationship GROUP by Movie\_ID) AS t,movie WHERE t.Movie\_ID=movie.Movie\_Id;*

**Output:**

****

**Query-4:** *Find the name ,year of release, IMDB rating and the name of the director of all the movies that contain at least 12 characters ( including spaces) in their name.*

SELECT Movie\_Name,Year,IMDB\_Rating,Director\_Name FROM movie,director WHERE movie.Director\_ID=director.Person\_ID AND Movie\_Name LIKE '\_\_\_\_\_\_\_\_\_\_\_\_%';

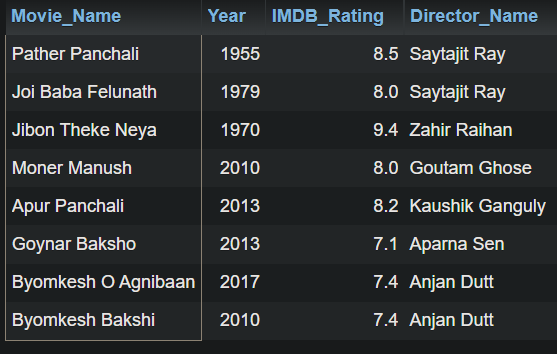
Or,

SELECT Movie\_Name,Year,IMDB\_Rating,Director\_Name FROM movie,director WHERE movie.Director\_ID=director.Person\_ID AND length(Movie\_Name)>=12;

Or,

**SQL:** SELECT Movie\_Name,Year,IMDB\_Rating,Director\_Name FROM movie join director WHERE movie.Director\_ID=director.Person\_ID AND length(Movie\_Name)>=12;

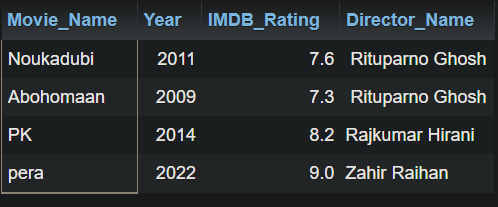
**Output:**

****

**Query-5:** *Find the name, year of release, IMDB rating and the name of the director of all the movies that contain at most 12 characters ( including spaces) in their name.*

**SQL:** SELECT Movie\_Name,Year,IMDB\_Rating,Director\_Name FROM movie JOIN director WHERE movie.Director\_ID=director.Person\_ID AND length(Movie\_Name)<=12;

**Output:**

****

**Level-2**

**Q-1:** Find the name, year of release, IMDB rating of all the movies of Byomkesh (NB: A movie of Byomkesh may not contain the term Byomkesh in it’s name);

**Q-2: Find the name and age of all the characters from the movies of Feluda(N.B: A movie of Feluda may not contain the term ‘Feluda’ in its name).**

***Query 2.6:*** *Find the name, year of release, IMDB rating of all the movies of Byomkesh (NB: A movie of Byomkesh may not contain the term Byomkesh in it’s name);*

***SQL:*** *SELECT Movie\_Name,Year,IMDB\_Rating FROM movie\_characters LEFT JOIN movie\_character\_relationship ON movie\_characters.Character\_ID=movie\_character\_relationship.Character\_ID LEFT JOIN movie ON movie.Movie\_ID=movie\_character\_relationship.Movie\_ID WHERE Character\_Name LIKE '%Byomkesh%';*

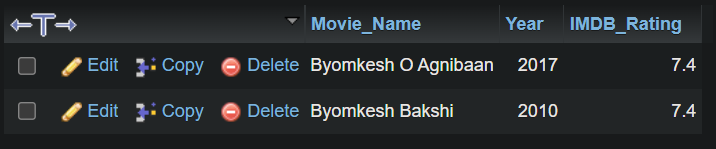
*OR,*

*SELECT Movie\_Name,Year,IMDB\_Rating FROM (SELECT Movie\_ID FROM (SELECT Character\_ID FROM movie\_characters WHERE Character\_Name LIKE '%Byomkesh%') AS char\_id,movie\_character\_relationship WHERE char\_id.Character\_ID=movie\_character\_relationship.Character\_ID)AS movie\_char,movie WHERE movie.Movie\_ID=movie\_char.Movie\_ID;*

*Or,*

*SELECT Movie\_Name,Year,IMDB\_Rating FROM (SELECT Movie\_ID FROM (SELECT Character\_ID FROM movie\_characters WHERE Character\_Name LIKE '%Byomkesh%') as t1,movie\_character\_relationship WHERE t1.Character\_ID=movie\_character\_relationship.Character\_ID) as t2,movie WHERE t2.Movie\_ID=movie.Movie\_Id;*

***Output:***

**

Query 2.7: Find the name and age of all the characters from the movies of Feluda.

SQL:

SELECT Character\_Name,Age FROM (SELECT Character\_ID FROM (SELECT Movie\_ID FROM (SELECT Character\_ID FROM movie\_characters WHERE Character\_Name ='Feluda') AS CHARACTERS,movie\_character\_relationship WHERE CHARACTERS.Character\_ID=movie\_character\_relationship.Character\_ID) AS MCR,movie\_character\_relationship WHERE MCR.Movie\_ID=movie\_character\_relationship.Movie\_ID) AS MC,movie\_characters WHERE MC.Character\_ID=movie\_characters.Character\_ID;

OR,

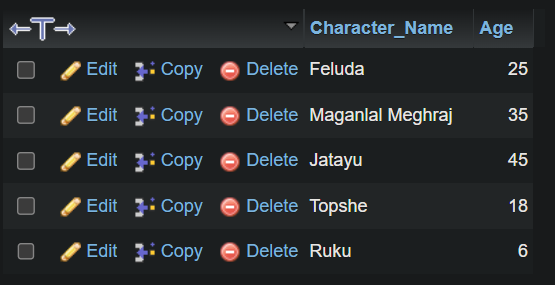
*SQL:* SELECT Character\_Name, Age from (SELECT Movie.Movie\_ID FROM Movie\_Characters JOIN Movie\_Character\_Relationship ON Movie\_Characters.Character\_ID = Movie\_Character\_Relationship.Character\_ID JOIN Movie ON Movie.Movie\_Id = Movie\_Character\_Relationship.Movie\_ID

WHERE Character\_Name LIKE '%Feluda%') as MovieForCharacter JOIN Movie\_Character\_Relationship ON MovieForCharacter.Movie\_ID = Movie\_Character\_Relationship.Movie\_ID JOIN Movie\_Characters ON Movie\_Characters.Character\_ID = Movie\_Character\_Relationship.Character\_ID;

OR,

SELECT movie\_characters.Character\_Name,movie\_characters.Age FROM movie\_characters AS MC LEFT JOIN movie\_character\_relationship AS MCR ON MC.Character\_ID=MCR.Character\_ID LEFT JOIN movie\_character\_relationship AS MCR1 ON MCR.Movie\_ID=MCR1.Movie\_ID LEFT JOIN movie\_characters ON MCR1.Character\_ID=movie\_characters.Character\_ID WHERE movie\_characters.Character\_Name='Feluda';

*Output:*

**

**Query 2.8:** Find the name and age of all the characters from the movies of Saytajit Ray.

**SQL:**

SELECT Character\_Name,Age FROM director LEFT JOIN movie ON director.Person\_ID=movie.Director\_ID LEFT JOIN movie\_character\_relationship ON movie.Movie\_ID=movie\_character\_relationship.Movie\_ID LEFT JOIN movie\_characters ON movie\_character\_relationship.Character\_ID=movie\_characters.Character\_ID WHERE Director\_Name LIKE '%Saytajit Ray%';

OR,

SELECT Character\_Name,Age FROM (SELECT Character\_ID FROM (SELECT Movie\_ID FROM (SELECT Person\_ID FROM director WHERE Director\_Name LIKE '%Saytajit Ray%') AS DIRECTOR,movie WHERE director.Person\_ID=movie.Director\_ID) AS MOVIE,movie\_character\_relationship WHERE movie.Movie\_ID=movie\_character\_relationship.Movie\_ID) AS CHARACTERS,movie\_characters WHERE CHARACTERS.Character\_ID=movie\_characters.Character\_ID;

Or,

SELECT Character\_Name,Age FROM (SELECT Character\_ID FROM (SELECT Movie\_ID FROM (SELECT Person\_ID FROM director WHERE Director\_Name LIKE '%Saytajit Ray%') as t1,movie WHERE movie.Person\_ID=t1.Person\_ID) as t2,movie\_character\_relationship WHERE t2.Movie\_ID=movie\_character\_relationship.Movie\_ID) as t3,movie\_characters WHERE t3.Character\_ID=movie\_characters.Character\_ID;

OUTPUT:

