

## SQL problems

- problem 1

For one step :

Create database

```
CREATE DATABASE Movies;  
USE Movies;
```

2 step

Create table

```
CREATE TABLE Cinema (  
    id INT PRIMARY KEY,  
    movie VARCHAR(100),  
    description VARCHAR(100),  
    rating FLOAT  
);
```

Insert data

```
13 • INSERT INTO Cinema (id, movie, description, rating) VALUES  
14 (1, 'War', 'great 3D', 8.9),  
15 (2, 'Science', 'fiction', 8.5),  
16 (3, 'irish', 'boring', 6.2),  
17 (4, 'Ice song', 'Fantasy', 8.6),  
18 (5, 'House card', 'Interesting', 9.1);  
19
```

3 step :

SQL query




```
22 • SELECT *FROM Cinema WHERE id % 2 = 1  
23 AND description != 'boring'  
24 ORDER BY rating DESC;  
25
```

Finally solution :

Result Grid					Filter Rows:					Edit:					Export/Import:					Wrap Cell Content:				
	id	movie	description	rating																				
	5	House card	Interesting	9.1																				
	1	War	great 3D	8.9																				
	NULL	NULL	NULL	NULL																				

- problem 2

- `CREATE DATABASE school ;`
- `USE school ;`

- `CREATE TABLE Students`  
 (  
    `student_id     INT   ,`  
    `student_name  VARCHAR(50) ,`  
    `PRIMARY KEY ( student_id )`  
);
- `CREATE TABLE Subjects`  
 (  
    `subject_name    VARCHAR(50) ,`  
    `PRIMARY KEY ( subject_name )`  
);
- `CREATE TABLE Examinations`  
 (  
    `student_id     INT   ,`  
    `subject_name   VARCHAR(50)`  
);

- `INSERT INTO Students VALUES`  
`(1 , 'Alice'),`  
`(2 , 'Bob'),`  
`(13 , 'John'),`  
`(6 , 'Alex') ;`
- `INSERT INTO Subjects VALUES`  
`('Math'),`  
`('Physics'),`  
`('Programming') ;`
- `INSERT INTO Examinations VALUES`  
`(1 , 'Math'),`  
`(1 , 'Physics'),`  
`(1 , 'Programming'),`  
`(2 , 'Programming'),`  
`(1 , 'Physics'),`  
`(1 , 'Math'),`  
`(13 , 'Math'),`  
`(13 , 'Programming'),`  
`(13 , 'Physics'),`  
`(2 , 'Math'),`  
`(1 , 'Math') ;`

- ```
SELECT s.student_id , s.student_name , su.subject_name ,
COUNT(e.subject_name)
FROM Students s
CROSS JOIN Subjects su
LEFT JOIN Examinations e
ON s.student_id = e.student_id
AND su.subject_name = e.subject_name
GROUP BY s.student_id , s.student_name , su.subject_name
ORDER BY s.student_id , su.subject_name ;
```

|  | student_id | student_name | subject_name | COUNT(e.subject_name) |
|--|------------|--------------|--------------|-----------------------|
|  | 1          | Alice        | Math         | 3                     |
|  | 1          | Alice        | Phvsics      | 2                     |
|  | 1          | Alice        | Programmina  | 1                     |
|  | 2          | Bob          | Math         | 1                     |
|  | 2          | Bob          | Phvsics      | 0                     |
|  | 2          | Bob          | Programmina  | 1                     |
|  | 6          | Alex         | Math         | 0                     |
|  | 6          | Alex         | Phvsics      | 0                     |
|  | 6          | Alex         | Programmina  | 0                     |
|  | 13         | John         | Math         | 1                     |
|  | 13         | John         | Phvsics      | 1                     |
|  | 13         | John         | Programmina  | 1                     |