

```
CREATE DATABASE IF NOT EXISTS proj_mgm;
USE proj_mgm;
CREATE TABLE IF NOT EXISTS users(
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(255) NOT NULL,
    role ENUM('USER','ADMIN') DEFAULT 'USER',
    email VARCHAR(255) NOT NULL UNIQUE,
    password VARCHAR(255) NOT NULL,
    superior_id INT,
    FOREIGN KEY(superior_id) REFERENCES users(id)
);
```

```
CREATE TABLE equipments(
    id INT AUTO_INCREMENT PRIMARY KEY,
    model_number INT NOT NULL UNIQUE,
    name VARCHAR(255) NOT NULL,
    borrow_date DATE,
    return_date DATE
);
```

```
CREATE TABLE user equipments(
    id INT AUTO_INCREMENT PRIMARY KEY,
    user_id INT,
    equipment_id INT,
    FOREIGN KEY(user_id) REFERENCES users(id),
    FOREIGN KEY(equipment_id) REFERENCES equipments(id)
);
```

```
CREATE TABLE works(
    id INT AUTO_INCREMENT PRIMARY KEY,
    name VARCHAR(255) NOT NULL
);
```

```
CREATE TABLE timesheets(
    id INT AUTO_INCREMENT PRIMARY KEY,
    start DATETIME NOT NULL,
    end DATETIME NOT NULL,
    submitted_by INT NOT NULL,
    approved_by INT NOT NULL,
    work_id INT NOT NULL,
    FOREIGN KEY(submitted_by) REFERENCES users(id),
    FOREIGN KEY(approved_by) REFERENCES users(id),
```

```
        FOREIGN KEY(work_id) REFERENCES works(id)
    );
```

```
USE proj_mgm;
```

```
INSERT INTO users(name, role, email, password, superior_id)
VALUES
('Mary Claire Ethereal', 'ADMIN', 'mary.claire@eisblume.com', 'claireisadmin', NULL),
('Thomas Anderson', 'ADMIN', 'neo@eisblume.com', 'neoisadmin', 1),
('Alice Chanel', 'USER', 'chanel@eisblume.com', 'aliceisuser', 1),
('John Smith', 'USER', 'john@eisblume.com', 'johnisuser', 2),
('Emerald Dendron Greenleaf', 'USER', 'emerald@eisblume.com', 'emeraldisuser', 1),
('Amelia Watson', 'USER', 'amelia@eisblume.com', 'ameliaisuser', 2);
```

```
INSERT INTO equipments(model_number, name, borrow_date, return_date)
VALUES
('10010529', 'HP Spectre x360 Laptop', '2024-01-15', '2024-03-30'),
('10010530', 'Apple Macbook Pro Laptop', '2024-02-10', '2024-03-20'),
('10010531', 'Dell XPS 13 Laptop', '2024-03-05', '2024-04-15'),
('10010424', 'Apple iPad Pro Tablet', '2024-04-06', '2024-05-14'),
('10010425', 'Microsoft Surface Pro 7 Tablet', '2024-05-15', '2024-06-25'),
('10010426', 'Samsung Galaxy Tab S7 Tablet', '2024-06-02', '2024-07-18');
```

```
INSERT INTO user_equipments(user_id, equipment_id)
VALUES
(3, 2), -- Example IDs; ensure these match your actual data
(4, 1),
(5, 3),
(6, 5);
```

```
INSERT INTO works(name)
VALUES
('Version 10.01 - Project Matrix (Phase 1)'),
('Version 10.02 - Project Matrix (Phase 2)'),
('Version 10.03 - Project Matrix (Phase 3)'),
('Version 10.04 - Project Quantum Leap (Phase 1)'),
('Version 10.05 - Project Quantum Leap (Phase 2)'),
('Version 10.06 - Project Quantum Leap (Phase 3)');
```

```
INSERT INTO timesheets(start, end, submitted_by, approved_by, work_id)
```

VALUES

```
('2024-01-05 09:00:00', '2024-01-10 17:00:00', 3, 1, 1),  
( '2024-01-20 08:00:00', '2024-01-31 16:00:00', 5, 2, 2),  
( '2024-02-01 09:00:00', '2024-02-15 17:00:00', 4, 1, 3),  
( '2024-02-16 10:00:00', '2024-03-01 15:00:00', 6, 2, 4),  
( '2024-03-05 09:00:00', '2024-03-20 18:00:00', 3, 2, 1),  
( '2024-03-15 08:00:00', '2024-03-30 17:00:00', 4, 2, 5);
```

-- 1. Get all equipments a user has borrowed

```
SELECT u.name, e.model_number, e.name as equipment_name FROM user equipments ue  
JOIN users u ON u.id = ue.user_id  
JOIN equipments e ON e.id = ue.equipment_id;
```

Showing rows 0 - 3 (4 total, Query took 0.0002 seconds.)

```
SELECT u.name, e.model_number, e.name as equipment_name FROM user equipments ue JOIN users u ON u.id = ue.user_id JOIN equipments e ON e.id = ue.equipment_id;
```

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☐ Show all | Number of rows: 25 | Filter rows:

Extra options

name	model_number	equipment_name
Alice Chanel	10010530	Apple Macbook Pro Laptop
John Smith	10010529	HP Spectre x360 Laptop
Emerald Dendron Greenleaf	10010531	Dell XPS 13 Laptop
Amelia Watson	10010425	Microsoft Surface Pro 7 Tablet

-- 2. Display all users and their superiors, if any

```
SELECT u.name AS user_name, s.name AS superior_name  
FROM users u  
LEFT JOIN users s ON u.superior_id = s.id  
WHERE u.name IS NOT NULL and s.name IS NOT NULL;
```

Showing rows 0 - 4 (5 total, Query took 0.0008 seconds.)

```
SELECT u.name AS user_name, s.name AS superior_name FROM users u LEFT JOIN users s ON u.superior_id = s.id WHERE u.name IS NOT NULL and s.name IS NOT NULL;
```

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☐ Show all | Number of rows: 25 | Filter rows:

Extra options

user_name	superior_name
Thomas Anderson	Mary Claire Ethereal
Alice Chanel	Mary Claire Ethereal
John Smith	Thomas Anderson
Emerald Dendron Greenleaf	Mary Claire Ethereal
Amelia Watson	Thomas Anderson

-- 3. Display all timesheets from January 1, 2024, to June 17, 2024 whose work name contains the version number "10.05"

```
SELECT t.*, w.name AS version_number FROM works w
JOIN timesheets t ON t.work_id = w.id
WHERE w.name LIKE '%10.05%'
AND t.start >= '2024-01-01' AND end <= '2024-06-17';
```

Showing rows 0 - 0 (1 total, Query took 0.0003 seconds.)

```
SELECT t.*, w.name AS version_number FROM works w JOIN timesheets t ON t.work_id = w.id WHERE w.name LIKE '%10.05%' AND t.start >= '2024-01-01' AND end <= '2024-06-17';
```

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☐ Show all | Number of rows: 25 | Filter rows:

Extra options

id	start	end	submitted_by	approved_by	work_id	version_number
6	2024-03-15 08:00:00	2024-03-30 17:00:00	4	2	5	Version 10.05 - Project Quantum Leap (Phase 2)

-- 4. Display the id, start, end, submitter, work name, approver for all timesheets

```
SELECT t.id, t.start, t.end, u_sub.name as submitter, w.name as work_name, u_app.name as approver
FROM timesheets t
JOIN users u_sub ON u_sub.id = t.submitted_by
JOIN users u_app ON u_app.id = t.approved_by
JOIN works w ON w.id = t.work_id;
```

Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

```
SELECT t.id, t.start, t.end, u_sub.name as submitter, w.name as work_name, u_app.name as approver FROM timesheets t JOIN users u_sub ON u_sub.id = t.submitted_by JOIN users u_app ON u_app.id = t.approved_by JOIN works w ON w.id = t.work_id;
```

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☐ Show all | Number of rows: 25 | Filter rows: Sort by key:

Extra options

id	start	end	submitter	work_name	approver
1	2024-01-05 09:00:00	2024-01-10 17:00:00	Alice Chanel	Version 10.01 - Project Matrix (Phase 1)	Mary Claire Ethereal
2	2024-01-20 08:00:00	2024-01-31 16:00:00	Emerald Dendron Greenleaf	Version 10.02 - Project Matrix (Phase 2)	Thomas Anderson
3	2024-02-01 09:00:00	2024-02-15 17:00:00	John Smith	Version 10.03 - Project Matrix (Phase 3)	Mary Claire Ethereal
4	2024-02-16 10:00:00	2024-03-01 15:00:00	Amelia Watson	Version 10.04 - Project Quantum Leap (Phase 1)	Thomas Anderson
5	2024-03-05 09:00:00	2024-03-20 18:00:00	Alice Chanel	Version 10.01 - Project Matrix (Phase 1)	Thomas Anderson
6	2024-03-15 08:00:00	2024-03-30 17:00:00	John Smith	Version 10.05 - Project Quantum Leap (Phase 2)	Thomas Anderson

-- 5. Display the same as 4 for all approved timesheets

```
SELECT t.id, t.start, t.end, u_sub.name as submitter, w.name as work_name, u_app.name as approver
FROM timesheets t
JOIN users u_sub ON u_sub.id = t.submitted_by
JOIN users u_app ON u_app.id = t.approved_by
```

JOIN works w ON w.id = t.work_id
WHERE u_app.id IS NOT NULL;

✓ Showing rows 0 - 5 (6 total, Query took 0.0003 seconds.)

```
SELECT t.id, t.start, t.end, u_sub.name as submitter, w.name as work_name, u_app.name as approver FROM timesheets t JOIN users u_sub ON u_sub.id = t.submitted_by JOIN users u_app ON u_app.id = t.approved_by JOIN works w ON w.id = t.work_id WHERE u_app.id IS NOT NULL;
```

☐ Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

id	start	end	submitter	work_name	approver
1	2024-01-05 09:00:00	2024-01-10 17:00:00	Alice Chanel	Version 10.01 - Project Matrix (Phase 1)	Mary Claire Ethereal
2	2024-01-20 08:00:00	2024-01-31 16:00:00	Emerald Dendron Greenleaf	Version 10.02 - Project Matrix (Phase 2)	Thomas Anderson
3	2024-02-01 09:00:00	2024-02-15 17:00:00	John Smith	Version 10.03 - Project Matrix (Phase 3)	Mary Claire Ethereal
4	2024-02-16 10:00:00	2024-03-01 15:00:00	Amelia Watson	Version 10.04 - Project Quantum Leap (Phase 1)	Thomas Anderson
5	2024-03-05 09:00:00	2024-03-20 18:00:00	Alice Chanel	Version 10.01 - Project Matrix (Phase 1)	Thomas Anderson
6	2024-03-15 08:00:00	2024-03-30 17:00:00	John Smith	Version 10.05 - Project Quantum Leap (Phase 2)	Thomas Anderson

– 6. Get all timesheets approved or submitted by users using equipment with model number 10010529

```
SELECT
    t.id AS timesheet_id,
    t.start AS timesheet_start,
    t.end AS timesheet_end,
    u_sub.name AS submitter_name,
    w.name AS work_name,
    u_app.name AS approver_name,
    e.model_number AS equipment_model_number,
    e.name AS equipment_name
FROM
    timesheets t
JOIN
    works w ON t.work_id = w.id
JOIN
    users u_sub ON t.submitted_by = u_sub.id
JOIN
    users u_app ON t.approved_by = u_app.id
JOIN
    user equipments ue ON ue.user_id = u_sub.id OR ue.user_id = u_app.id
JOIN
    equipments e ON ue.equipment_id = e.id
WHERE
    e.model_number = '10010529';
```

✔ Showing rows 0 - 0 (1 total, Query took 0.0005 seconds.)

```
SELECT t.id AS timesheet_id, t.start AS timesheet_start, t.end AS timesheet_end, u_sub.name AS submitter_name, w.name AS work_name,
u_app.name AS approver_name, e.model_number AS equipment_model_number, e.name AS equipment_name FROM timesheets t JOIN works w ON
t.work_id = w.id JOIN users u_sub ON t.submitted_by = u_sub.id JOIN users u_app ON t.approved_by = u_app.id JOIN user equipments ue ON
ue.user_id = u_sub.id OR ue.user_id = u_app.id JOIN equipments e ON ue.equipment_id = e.id WHERE e.model_number = '10010529';
```

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☐ Show all | Number of rows:

25 ▾

 Filter rows:

Search this table

Extra options

timesheet_id	timesheet_start	timesheet_end	submitter_name	work_name	approver_name	equipment_model_number	equipment_name
3	2024-02-16 08:45:30	2024-03-20 15:45:20	John Smith	Version 10.03 - Project Matrix (Phase 3)	Thomas Anderson	10010529	HP Spectre x360 Laptop