```
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;



-- 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;



-- 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';



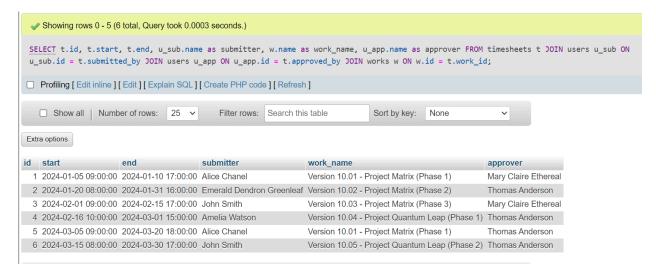
-- 4. Display the id, start, end, submitter, work name, approver for all timesheets SELECT t.id, t.start, t.end, u\_sub.name as submitter, w.name as work\_name, u\_app.name as approver

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;



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

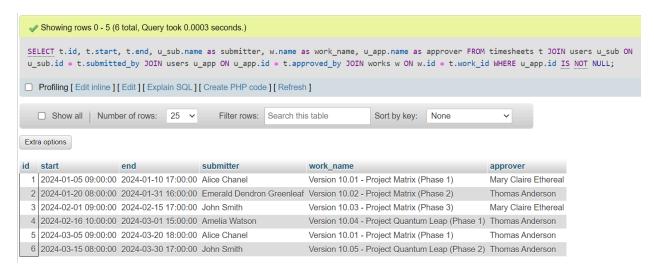
SELECT t.id, t.start, t.end, u\_sub.name as submitter, w.name as work\_name, u\_app.name as approver

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;



 – 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';
```

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';								
□ Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]								
☐ 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_n	umber	equipment_name
3	3 2024-02-16 08:45:30	2024-03-20 15:45:20	John Smith	Version 10.03 - Project Matrix (Phase 3)	Thomas Anderson	11	0010529	HP Spectre x360 Laptop