

REQ201 도서 대여																																																																																																																												
<p>-- 대여 전 대여 테이블</p> <pre>SELECT * FROM rent;</pre>		<p>-- 대여 쿼리 (4번 회원이 1번 도서 대여)</p> <pre>INSERT INTO rent VALUES(NULL, 4, 1);</pre>																																																																																																																										
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REQ202 대여 확인

-- 대여 정보 조회 쿼리

```
SELECT u.userID,
       u.userName,
       u.email,
       u.addr,
       u.phone,
       ri.borrowDate,
       ri.returnDate,
       ri.renew,
       ri.overdueCheck
FROM user u
INNER JOIN rent r ON r.userID = u.userID
INNER JOIN rentinfo ri ON ri.rentID = r.rentID;
```

-- 검색 결과

-- 대여 정보 조회 REQ202

```
SELECT u.userID,
       u.userName,
       u.email,
       u.addr,
       u.phone,
       ri.borrowDate,
       ri.returnDate,
       ri.renew,
       ri.overdueCheck
FROM user u
INNER JOIN rent r ON r.userID = u.userID
INNER JOIN rentinfo ri ON ri.rentID = r.rentID;
```

#	userID	userName	email	addr	phone	borrowDate	returnDate	renew	overdueCheck
2	1	John	user1@example.com	123 Main St, City, Country	123-456-7890	2024-05-31	2024-06-07	(NULL)	N
3	1	John	user1@example.com	123 Main St, City, Country	123-456-7890	2024-05-31	2024-06-07	(NULL)	N
4	1	John	user1@example.com	123 Main St, City, Country	123-456-7890	2024-05-31	2024-06-07	(NULL)	N
5	2	Jane	user2@example.com	456 Elm St, City, Country	234-567-8901	2024-05-31	2024-06-07	(NULL)	N
6	2	Jane	user2@example.com	456 Elm St, City, Country	234-567-8901	2024-05-31	2024-06-07	(NULL)	N
7	3	David	user3@example.com	789 Oak St, City, Country	345-678-9012	2024-05-31	2024-06-07	(NULL)	N
8	3	David	user3@example.com	789 Oak St, City, Country	345-678-9012	2024-05-31	2024-06-07	(NULL)	N
9	3	David	user3@example.com	789 Oak St, City, Country	345-678-9012	2024-05-31	2024-06-07	(NULL)	N
10	3	David	user3@example.com	789 Oak St, City, Country	345-678-9012	2024-05-31	2024-06-07	(NULL)	N
11	4	Emily	user4@example.com	321 Maple St, City, Country	456-789-0123	2024-05-31	2024-06-07	(NULL)	N

REQ203 도서 연장

-- 대여 연장 전 데이터
SELECT *
FROM rentinfo;

1	1	1	2024-05-31	2024-06-07	(NULL)	N
2	2	2	2024-05-31	2024-06-07	(NULL)	N
3	3	3	2024-05-31	2024-06-07	(NULL)	N
4	4	4	2024-05-31	2024-06-07	(NULL)	N
5	5	5	2024-05-31	2024-06-07	(NULL)	N
6	6	6	2024-05-31	2024-06-07	(NULL)	N
7	7	7	2024-05-31	2024-06-07	(NULL)	N
8	8	8	2024-05-31	2024-06-07	(NULL)	N
9	9	9	2024-05-31	2024-06-07	(NULL)	N
10	10	10	2024-05-31	2024-06-07	(NULL)	N

-- 대여 연장 쿼리
UPDATE rentinfo ri
JOIN rent r ON ri.rentID = r.rentID
SET
ri.renew = 1,
ri.returnDate = DATE_ADD(ri.returnDate, INTERVAL
3 DAY)
WHERE r.rentID = 2;

-- 대여 ID를 연장 REQ203
UPDATE rentinfo ri
JOIN rent r ON ri.rentID = r.rentID
SET ri.renew = 1,
ri.returnDate = DATE_ADD(ri.returnDate, INTERVAL 3 DAY)
WHERE r.rentID = 2;

-- 대여 연장 후 데이터
SELECT *
FROM rentinfo;

infoID	rentID	borrowDate	returnDate	renew	overdueCheck
1	1	2024-05-31	2024-06-07	(NULL)	N
2	2	2024-05-31	2024-06-10	1	N
3	3	2024-05-31	2024-06-07	(NULL)	N
4	4	2024-05-31	2024-06-07	(NULL)	N
5	5	2024-05-31	2024-06-07	(NULL)	N
6	6	2024-05-31	2024-06-07	(NULL)	N
7	7	2024-05-31	2024-06-07	(NULL)	N
8	8	2024-05-31	2024-06-07	(NULL)	N
9	9	2024-05-31	2024-06-07	(NULL)	N
10	10	2024-05-31	2024-06-07	(NULL)	N

REQ204 연장 확인

-- 대여 연장 여부 확인

```
SELECT u.userID,  
       u.userName,  
       u.email,  
       u.addr,  
       u.phone,  
       ri.renew,  
       ri.returnDate  
FROM user u  
INNER JOIN rent r ON r.userID = u.userID  
INNER JOIN rentinfo ri ON ri.rentID = r.rentID  
WHERE ri.renew IS NOT NULL;
```

-- 검색 결과

-- 연장 여부 확인 REQ204

```
SELECT u.userID,  
       u.userName,  
       u.email,  
       u.addr,  
       u.phone,  
       ri.renew,  
       ri.returnDate  
FROM user u  
INNER JOIN rent r ON r.userID = u.userID  
INNER JOIN rentinfo ri ON ri.rentID = r.rentID  
WHERE ri.renew IS NOT NULL;
```

user (1r x 7c)						
userID	username	email	addr	phone	renew	returnDate
1	John	user1@example.com	123 Main St, City, Country	123-456-7890	1	2024-06-10

REQ205 반납일 확인

-- 반납일 확인 쿼리

```
SELECT u.userID,  
       u.userName,  
       u.email,  
       ri.returnDate,  
       DATEDIFF(ri.returnDate, CURDATE()) AS  
'남은일수'  
FROM user u  
INNER JOIN rent r ON r.userID = u.userID  
INNER JOIN rentinfo ri ON ri.rentID = r.rentID;
```

-- 검색 결과

```
-- 반납일 확인 REQ205  
SELECT u.userID,  
       u.userName,  
       u.email,  
       ri.returnDate,  
       DATEDIFF(ri.returnDate, CURDATE()) AS '남은일수'  
FROM user u  
INNER JOIN rent r ON r.userID = u.userID  
INNER JOIN rentinfo ri ON ri.rentID = r.rentID;
```

#	userID	userName	email	returnDate	남은일수
2	1	John	user1@example.com	2024-06-10	10
3	1	John	user1@example.com	2024-06-07	7
4	1	John	user1@example.com	2024-06-07	7
5	2	Jane	user2@example.com	2024-06-07	7
6	2	Jane	user2@example.com	2024-06-07	7
7	3	David	user3@example.com	2024-06-07	7
8	3	David	user3@example.com	2024-06-07	7
9	3	David	user3@example.com	2024-06-07	7
10	3	David	user3@example.com	2024-06-07	7
11	4	Emily	user4@example.com	2024-06-07	7

REQ206 도서 반납

-- 도서 반납 전 대여 테이블

SELECT *
FROM rent;

	rentID	userID	bookID
1	2	1	2
2	3	1	3
3	4	1	3
4	5	2	4
5	6	2	5
6	7	3	1
7	8	3	1
8	9	3	1
9	10	3	1
10	11	4	1

-- 도서 반납 전 도서 수량

SELECT *
FROM book;

bookID	category	writer	publisher	pubDate	title	reservationCheck	rentCheck	count
1	과학	kim	출판사1	2024-05-05	도서명1	N	Y	30
2	수학	pack	출판사2	2023-07-15	도서명2	N	N	30
3	IT	na	출판사3	2024-05-13	도서명3	N	N	30
4	인문	lee	출판사4	2022-11-05	도서명4	N	N	30
5	소설	choi	출판사5	2024-08-21	도서명5	N	N	30
6	IT	James Smith	TechBooks	2021-05-15	Learning SQL	N	N	10
7	과학	Jane Doe	SciencePress	2020-11-10	The Quantum World	Y	N	5
8	수학	Albert Newton	MathWorld	2019-02-22	Advanced Calculus	N	Y	3
9	인문	Sophia Lee	HumanitiesPub	2018-07-30	Philosophy Basics	N	N	7
10	소설	Mark Twain	FictionHouse	2022-01-01	The Great Adventure	Y	Y	12

-- 도서 반납 쿼리

(반납 시 트리거로 도서 수량 자동 증가)

DELETE
FROM rent
WHERE rentID = 7;

-- 도서 반납 후 대여 테이블

SELECT *
FROM rent;

	rentID	userID	bookID
1	2	1	2
2	3	1	3
3	4	1	3
4	5	2	4
5	6	2	5
6	8	3	1
7	9	3	1
8	10	3	1
9	11	4	1

-- 도서 반납 후 도서 수량

SELECT *
FROM book;

bookID	category	writer	publisher	pubDate	title	reservationCheck	rentCheck	count
1	과학	kim	출판사1	2024-05-05	도서명1	N	Y	31
2	수학	pack	출판사2	2023-07-15	도서명2	N	N	30
3	IT	na	출판사3	2024-05-13	도서명3	N	N	30
4	인문	lee	출판사4	2022-11-05	도서명4	N	N	30
5	소설	choi	출판사5	2024-08-21	도서명5	N	N	30
6	IT	James Smith	TechBooks	2021-05-15	Learning SQL	N	N	10
7	과학	Jane Doe	SciencePress	2020-11-10	The Quantum World	Y	N	5
8	수학	Albert Newton	MathWorld	2019-02-22	Advanced Calculus	N	Y	3
9	인문	Sophia Lee	HumanitiesPub	2018-07-30	Philosophy Basics	N	N	7
10	소설	Mark Twain	FictionHouse	2022-01-01	The Great Adventure	Y	Y	12

REQ207 연체여부 확인

-- 연체 여부 확인 쿼리

```
SELECT u.userID,  
       u.userName,  
       u.email,  
       u.addr,  
       u.phone,  
       ri.returnDate,  
       DATEDIFF(ri.returnDate, CURDATE()) AS  
'남은일수',  
       ri.overdueCheck  
FROM user u  
INNER JOIN rent r ON r.userID = u.userID  
INNER JOIN rentinfo ri ON ri.rentID = r.rentID;
```

-- 검색 결과

-- 회원의 연체여부 확인 REQ207

```
SELECT u.userID,  
       u.userName,  
       u.email,  
       u.addr,  
       u.phone,  
       ri.returnDate,  
       DATEDIFF(ri.returnDate, CURDATE()) AS '남은일수',  
       ri.overdueCheck  
FROM user u  
INNER JOIN rent r ON r.userID = u.userID  
INNER JOIN rentinfo ri ON ri.rentID = r.rentID;
```

user (9r x 8c)								
	userID	userName	email	addr	phone	returnDate	남은일수	overdueCheck
1	1	John	user1@example.com	123 Main St, City, Country	123-456-7890	2024-06-10	8	N
2	1	John	user1@example.com	123 Main St, City, Country	123-456-7890	2024-05-31	-2	Y
3	1	John	user1@example.com	123 Main St, City, Country	123-456-7890	2024-06-07	5	N
4	2	Jane	user2@example.com	456 Elm St, City, Country	234-567-8901	2024-05-17	-16	Y
5	2	Jane	user2@example.com	456 Elm St, City, Country	234-567-8901	2024-05-19	-14	Y
6	3	David	user3@example.com	789 Oak St, City, Country	345-678-9012	2024-06-07	5	N
7	3	David	user3@example.com	789 Oak St, City, Country	345-678-9012	2024-05-29	-4	Y
8	3	David	user3@example.com	789 Oak St, City, Country	345-678-9012	2024-05-30	-3	Y
9	4	Emily	user4@example.com	321 Maple St, City, Country	456-789-0123	2024-06-07	5	N

REQ208 연체일 확인

-- 연체일 확인 쿼리

```
SELECT r.userID,
       r.bookID,
       ABS(DATEDIFF(ri.returnDate,CURDATE()))
AS '연체일수'
FROM rentinfo ri
INNER JOIN rent r ON r.rentID = ri.rentID
WHERE DATEDIFF(returnDate, CURDATE()) < 0;
```

-- 검색 결과

```
-- 연체일 날짜에 따라 연체일 증가하고 감소시킨다 REQ207
SELECT r.userID,
       r.bookID,
       ABS(DATEDIFF(ri.returnDate, CURDATE())) AS '연체일수'
FROM rentinfo ri
INNER JOIN rent r ON r.rentID = ri.rentID
WHERE DATEDIFF(returnDate, CURDATE()) < 0;
```

rentinfo (5r × 3c)

#	userID	bookID	연체일수
1	2	4	14
2	2	5	12
3	3	1	11
4	3	1	2
5	3	1	1