

[2-3. SQL문을 이용하여 직접 입출 내역 저장 및 출력하기]

1. 계좌정보 INSERT

- 저장할 계좌정보 데이터 예시

테이블 이름	accounts_info							
account_id	bank_name	account_number	account_holder	account_type	branch_name	account_alias	description	opening_date
hana1234	하나은행	12345-01-1234	FC호텔	보통예금	여의도점	매출계좌	매출대금 입금계좌	2024-01-02
hana4321	하나은행	12345-01-4321	FC호텔	보통예금	여의도점	운영계좌	운영비용 지출 계좌	2024-01-02
shhn4567	신한은행	54321-21-4567	FC호텔	정기예금	여의도점	정기예금	10억원 1년 정기예금	2024-01-02

- 계좌정보 INSERT 쿼리문

```
INSERT INTO accounts_info (account_id, bank_name,
account_number, account_holder, account_type, branch_name,
account_alias, description, opening_date) VALUES
('hana1234', '하나은행', '12345-01-1234', 'FC호텔', '보통예금',
'여의도점', '매출계좌', '매출대금 입금계좌', '2024-01-02'),
('hana4321', '하나은행', '12345-01-4321', 'FC호텔', '보통예금',
'여의도점', '운영계좌', '운영비용 지출 계좌', '2024-01-02'),
('shhn4567', '신한은행', '54321-21-4567', 'FC호텔', '정기예금',
'여의도점', '정기예금', '10억원 1년 정기예금', '2024-01-02');
```

2. 현금 입출내역 INSERT

2-1. 현금 입출내역 INSERT 쿼리문 작성하기

- 저장할 현금 입출내역 데이터 예시

테이블 이름	cashflow_tbl					
account_id	dw_date	category	client	deposit	withdrawal	description
hana4321	2024-01-02	자본금	FC사	2,000,000,000	0	자본금 입금
hana4321	2024-01-02	계좌이체	FC사	0	1,000,000,000	정기예금 예치
shhn4567	2024-01-02	계좌이체	FC사	1,000,000,000	0	정기예금 예치
hana1234	2024-01-03	객실수입	호텔스닷컴	33,000,000	0	객실 매출
hana4321	2024-01-03	고객용품비	ABC용품사	0	20,000,000	고객용품비 지출
hana4321	2024-01-03	기타영업비용	A사	0	15,000,000	영업비용A
hana1234	2024-01-04	객실수입	호텔스넷	25,000,000	0	객실 매출
hana1234	2024-01-05	객실수입	호텔스닷컴	30,000,000	0	객실 매출
hana1234	2024-01-06	객실수입	호텔스넷	25,000,000	0	객실 매출
hana1234	2024-01-07	객실수입	호텔스닷컴	31,000,000	0	객실 매출
hana4321	2024-01-07	판매수수료	호텔스닷컴	0	4,700,000	객실판매수수료
hana1234	2024-01-08	객실수입	호텔스넷	25,000,000	0	객실 매출
hana4321	2024-01-08	판매수수료	호텔스넷	0	3,750,000	객실판매수수료
hana1234	2024-01-09	객실수입	호텔스닷컴	31,000,000	0	객실 매출
hana1234	2024-01-10	객실수입	호텔스넷	27,000,000	0	객실 매출
hana4321	2024-01-10	고객용품비	ABC용품사	0	15,000,000	고객용품비 지출
hana4321	2024-01-10	세금과공과	세금과공과	0	85,000,000	세금과공과
hana4321	2024-01-10	기타영업비용	B사	0	20,000,000	영업비용B

- 계좌정보 INSERT 쿼리문

```

INSERT INTO cashflow_tbl (account_id, dw_date, category,
client, deposit, withdrawal, description) VALUES
('hana4321', '2024-01-02', '자본금', 'FC사', 2000000000, 0,
'자본금 입금'),
('hana4321', '2024-01-02', '계좌이체', 'FC사', 0, 1000000000,
'정기예금 예치'),
('shhn4567', '2024-01-02', '계좌이체', 'FC사', 1000000000, 0,
'정기예금 예치'),
('hana1234', '2024-01-03', '객실수입', '호텔스닷컴', 33000000, 0,
'객실 매출'),
('hana4321', '2024-01-03', '고객용품비', 'ABC용품사', 0,
20000000, '고객용품비 지출'),
('hana4321', '2024-01-03', '기타영업비용', 'A사', 0, 15000000,
'영업비용A'),
('hana1234', '2024-01-04', '객실수입', '호텔스넷', 25000000, 0,
'객실 매출'),
('hana1234', '2024-01-05', '객실수입', '호텔스닷컴', 30000000, 0,
'객실 매출'),
('hana1234', '2024-01-06', '객실수입', '호텔스넷', 25000000, 0,
'객실 매출'),
('hana1234', '2024-01-07', '객실수입', '호텔스닷컴', 31000000, 0,
'객실 매출'),
('hana4321', '2024-01-07', '판매수수료', '호텔스닷컴', 0,
4700000, '객실판매수수료'),
('hana1234', '2024-01-08', '객실수입', '호텔스넷', 25000000, 0,
'객실 매출'),
('hana4321', '2024-01-08', '판매수수료', '호텔스넷', 0, 3750000,
'객실판매수수료'),
('hana1234', '2024-01-09', '객실수입', '호텔스닷컴', 31000000, 0,
'객실 매출'),
('hana1234', '2024-01-10', '객실수입', '호텔스넷', 27000000, 0,
'객실 매출'),

```

```
( 'hana4321', '2024-01-10', '고객용품비', 'ABC용품사', 0,
15000000, '고객용품비 지출'),
( 'hana4321', '2024-01-10', '세금과공과', '세금과공과', 0,
85000000, '세금과공과'),
( 'hana4321', '2024-01-10', '기타영업비용', 'B사', 0, 20000000,
'영업비용B');
```

```
INSERT INTO cashflow_tbl (account_id, dw_date, category,
client, deposit, withdrawal, description) VALUES
( 'hana1234', '2024-01-11', '객실수입', '호텔스닷컴', 25000000, 0,
'객실 매출'),
( 'hana1234', '2024-01-12', '객실수입', '호텔스넷', 32000000, 0,
'객실 매출'),
( 'hana1234', '2024-01-13', '객실수입', '호텔스닷컴', 35000000, 0,
'객실 매출'),
( 'hana4321', '2024-01-13', '판매수수료', '호텔스닷컴', 0,
4550000, '객실판매수수료'),
( 'hana1234', '2024-01-14', '객실수입', '호텔스넷', 33000000, 0,
'객실 매출'),
( 'hana4321', '2024-01-14', '판매수수료', '호텔스넷', 0, 4600000,
'객실판매수수료'),
( 'hana1234', '2024-01-15', '객실수입', '호텔스닷컴', 24000000, 0,
'객실 매출'),
( 'hana1234', '2024-01-16', '객실수입', '호텔스넷', 22000000, 0,
'객실 매출'),
( 'hana1234', '2024-01-17', '객실수입', '호텔스닷컴', 25000000, 0,
'객실 매출'),
( 'hana4321', '2024-01-17', '고객용품비', 'ABC용품사', 0,
20000000, '고객용품비 지출'),
( 'hana4321', '2024-01-17', '기타영업비용', 'A사', 0, 18000000,
'영업비용C'),
( 'hana1234', '2024-01-18', '객실수입', '호텔스넷', 28000000, 0,
'객실 매출'),
( 'hana1234', '2024-01-19', '객실수입', '호텔스닷컴', 25000000, 0,
'객실 매출'),
( 'hana4321', '2024-01-19', '판매수수료', '호텔스닷컴', 0,
3700000, '객실판매수수료'),
( 'hana4321', '2024-01-19', '수도광열비', '수도광열비', 0,
41000000, '수도광열비 등'),
( 'hana1234', '2024-01-20', '객실수입', '호텔스넷', 27000000, 0,
'객실 매출'),
( 'hana4321', '2024-01-20', '판매수수료', '호텔스넷', 0, 3850000,
'객실판매수수료');
```

```
INSERT INTO cashflow_tbl (account_id, dw_date, category,
client, deposit, withdrawal, description) VALUES
( 'hana1234', '2024-01-21', '객실수입', '호텔스닷컴', 29000000, 0,
'객실 매출'),
( 'hana4321', '2024-01-21', '급여', '종업원급여', 0, 170000000,
'종업원급여'),
( 'hana1234', '2024-01-22', '객실수입', '호텔스넷', 28000000, 0,
```

```

'객실 매출'),
('hana1234', '2024-01-23', '객실수입', '호텔스닷컴', 31000000, 0,
'객실 매출'),
('hana1234', '2024-01-24', '객실수입', '호텔스넷', 25000000, 0,
'객실 매출'),
('hana4321', '2024-01-24', '고객용품비', 'ABC용품사', 0,
15000000, '고객용품비 지출'),
('hana4321', '2024-01-24', '노무용역비', '노무용역사', 0,
170000000, '노무용역비'),
('hana4321', '2024-01-24', '기타영업비용', 'C사', 0, 15000000,
'영업비용D'),
('hana1234', '2024-01-25', '객실수입', '호텔스닷컴', 30000000, 0,
'객실 매출'),
('hana4321', '2024-01-25', '판매수수료', '호텔스닷컴', 0,
4500000, '객실판매수수료'),
('hana1234', '2024-01-26', '객실수입', '호텔스넷', 31000000, 0,
'객실 매출'),
('hana4321', '2024-01-26', '판매수수료', '호텔스넷', 0, 4200000,
'객실판매수수료'),
('hana1234', '2024-01-27', '객실수입', '호텔스닷컴', 25000000, 0,
'객실 매출'),
('hana1234', '2024-01-28', '객실수입', '호텔스넷', 30000000, 0,
'객실 매출'),
('hana1234', '2024-01-29', '객실수입', '호텔스닷컴', 32000000, 0,
'객실 매출'),
('hana1234', '2024-01-30', '객실수입', '호텔스넷', 27000000, 0,
'객실 매출'),
('hana4321', '2024-01-30', '판매수수료', '호텔스넷', 0, 2850000,
'객실판매수수료'),
('hana1234', '2024-01-31', '객실수입', '호텔스닷컴', 32000000, 0,
'객실 매출'),
('hana4321', '2024-01-31', '판매수수료', '호텔스닷컴', 0,
4450000, '객실판매수수료'),
('hana4321', '2024-01-31', '고객용품비', 'ABC용품사', 0,
15000000, '고객용품비 지출'),
('hana4321', '2024-01-31', '기타영업비용', 'C사', 0, 20000000,
'영업비용E');

```

2-2. INSERT 쿼리문 엑셀파일로 작성하기

3. SELECT 구문 사용하여 데이터 추출하기

3-1. SELECT 이용하여 데이터 추출하기

- 입금액이 0보다 큰 데이터 전체 추출하기

```
SELECT * FROM cashflow_tbl WHERE deposit > 0;
```
- hana1234 계좌의 전체 데이터 추출하기

```
SELECT * FROM cashflow_tbl WHERE account_id = 'hana1234';
```
- 객실수입 데이터 추출하기

```
SELECT * FROM cashflow_tbl WHERE category = '객실수입';
```
- 영업비용 단어가 포함된 데이터 추출하기

```
SELECT * FROM cashflow_tbl WHERE description LIKE '%영업비용%';
```
- 일정 기간 내 거래 데이터 추출하기

```
SELECT * FROM cashflow_tbl  
WHERE dw_date BETWEEN '2024-01-10' AND '2024-01-20';
```

3-2. GROUP BY 이용하여 데이터 추출하기

- 각 계좌별 전체 입금/출금 합계액 및 계좌잔고 구하기

```
SELECT  
    account_id,  
    SUM(deposit) AS total_deposit,  
    SUM(withdrawal) AS total_withdrawal,  
    SUM(deposit) - SUM(withdrawal) AS balance  
FROM cashflow_tbl  
GROUP BY account_id;
```
- 클라이언트별로 거래건수 구하기

```
SELECT  
    client,  
    COUNT(*) AS transaction_count  
FROM cashflow_tbl  
GROUP BY client;
```
- 날짜별로 입출금 합계액 구하기 `` ` SELECT

```
dw_date,  
SUM(deposit) AS total_deposits,  
SUM(withdrawal) AS total_withdrawal,  
SUM(deposit) - SUM(withdrawal) AS cash_diff  
FROM cashflow_tbl GROUP BY dw_date;
```

3-3. JOIN을 이용하여 테이블 결합하기

- 전체 데이터 합쳐서 조회하기

```
SELECT a.*, c.*
FROM accounts_info a
JOIN cashflow_tbl c
ON a.account_id = c.account_id;
```

- JOIN한 데이터에서 필요한 컬럼 추출하기

```
SELECT
    a.account_id, a.bank_name, a.account_number,
    a.account_alias,
    c.dw_date, c.category, c.client, c.deposit,
    c.withdrawal,
    c.description
FROM accounts_info a
JOIN cashflow_tbl c ON a.account_id = c.account_id;
```

- 하나은행 거래내역 조회하기

```
SELECT
    a.account_id, a.bank_name, a.account_number,
    a.account_alias,
    c.dw_date, c.category, c.client, c.deposit,
    c.withdrawal, c.description
FROM accounts_info a
JOIN cashflow_tbl c ON a.account_id = c.account_id
WHERE a.bank_name = '하나은행';
```

- 은행별 잔액 조회하기

```
SELECT
    a.bank_name, SUM(deposit) - SUM(withdrawal) AS balance
FROM accounts_info a
JOIN cashflow_tbl c ON a.account_id = c.account_id
GROUP BY a.bank_name
```