

Assignment 2

CS 1103

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Part A:

```
CREATE TABLE types(  
    transact_type INT(1) UNSIGNED NOT NULL PRIMARY KEY,  
    transact_nature VARCHAR(10) NOT NULL);
```

```
CREATE TABLE accounti(  
    account_num INT UNSIGNED NOT NULL PRIMARY KEY,  
    acc_owner VARCHAR(50) NOT NULL ,  
    date_opened DATETIME NOT NULL );
```

```
CREATE TABLE records(  
    id int unsigned NOT NULL,  
    date_time DATETIME NOT NULL,  
    amount FLOAT(11) UNSIGNED NOT NULL,  
    transact_type INT(1) UNSIGNED NOT NULL,  
    account_num INT UNSIGNED NOT NULL,  
    PRIMARY KEY (id),  
    FOREIGN KEY (transact_type)  
        REFERENCES types(transact_type),  
    FOREIGN KEY (account_num)  
        REFERENCES accounti(account_num) );
```

Part B:

```
INSERT INTO accounti values (11001, 'Andrew', '2021-08-10');  
INSERT INTO accounti values (22002, 'Molly', '2021-08-11');  
INSERT INTO accounti values (33003, NULL, '2021-08-11');  
INSERT INTO types VALUES (1, 'deposit');  
INSERT INTO types VALUES (2, 'withdrawl');  
INSERT INTO records VALUES (1, '2021-09-01 8:30', 500.00, 1, 11001);  
INSERT INTO records VALUES (2, '2021-09-01 8:31', 300.00, 1, 22002);  
INSERT INTO records VALUES (3, '2021-09-01 17:00', 100.00, 2, 11001);  
INSERT INTO records VALUES (4, '2021-09-01 17:01', 100.00, 1, 22002);
```

Part C:

```
SELECT * FROM records;  
SELECT * FROM accounti;  
SELECT * FROM types;
```

id	date_time	amount	transact_type	account_num
1	2021-09-01 08:30:00	500,00	1	11 001
2	2021-09-01 08:31:00	300,00	1	22 002
3	2021-09-01 17:00:00	100,00	2	11 001
4	2021-09-01 17:01:00	100,00	1	22 002

account_num	acc_owner	date_opened
11 001	Andrew	2021-08-10
22 002	Molly	2021-08-11
33 003	(NULL)	2021-08-11

transact_type	transact_nature
1	deposit
2	withdrawl

Part D:

1)

```
INSERT INTO types VALUES (1, 'Adjustment')
```

SQL Error (1062): Duplicate entry '1' for key 'PRIMARY'

2)

```
INSERT INTO records VALUES (4, '2021-09-01 8:30', 500.00, 1, 11005);
```

SQL Error (1452): Cannot add or update a child row: a foreign key constraint fails

(`bank`.`records`, CONSTRAINT `records_ibfk_2` FOREIGN KEY (`account_num`) REFERENCES `accounti` (`account_num`))

3)

```
INSERT INTO records VALUES (5, '2021-09-01 8:30', -500.00, 1, 11001);
```

5	2021-09-01 08:30:00	-500,00	1	11 001
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