

/* Examples of using foreign key constraint, date attribute, and join tables in the bookclub database */

```
CREATE TABLE member (  
  mem_name VARCHAR2(30) UNIQUE,  
  mem_id NUMBER NOT NULL UNIQUE)
```

```
DROP TABLE member;
```

```
ALTER TABLE member ADD (  
  mem_type CHAR(2));
```

```
SELECT * FROM member;
```

```
INSERT INTO member(mem_name, mem_id, mem_type)  
VALUES ('Sara', 1234, 'PM');
```

```
ALTER TABLE member ADD (  
  mem_fee NUMBER(4,2) DEFAULT 0);
```

```
INSERT INTO member  
VALUES ('John', 456, 'PM', 23.00);
```

```
SELECT mem_id, mem_name  
FROM member  
WHERE mem_id=1234;
```

```
CREATE TABLE book (  
  book_name VARCHAR2(30) UNIQUE,  
  book_id NUMBER NOT NULL UNIQUE);
```

```
INSERT INTO book  
VALUES ('Database',789);
```

```
select * from borrows;  
drop table book;  
CREATE TABLE borrows (  
  mem_id REFERENCES member(mem_id),  
  book_id REFERENCES book(book_id),  
  PRIMARY KEY(mem_id,book_id));  
drop table borrows;
```

```
CREATE TABLE borrows (  
  mem_id NUMBER,  
  book_id NUMBER,  
  CONSTRAINT b_pk
```

```
PRIMARY KEY (mem_id,book_id),
CONSTRAINT b_fk1
FOREIGN KEY (mem_id)
REFERENCES member(mem_id) ON DELETE CASCADE,
CONSTRAINT b_fk2
FOREIGN KEY (book_id)
REFERENCES book(book_id) ON DELETE CASCADE
);
```

```
INSERT INTO borrows
VALUES (1234,789);
```

```
DROP TABLE book;
```

```
ALTER TABLE borrows
ENABLE CONSTRAINT b_fk2;
```

```
ALTER TABLE borrows
DISABLE CONSTRAINT b_pk;
```

```
SELECT * FROM USER_CONSTRAINTS WHERE TABLE_NAME= 'borrows';
```

```
DELETE FROM borrows
WHERE book_id= 789;
```

```
SELECT * from borrows;
```

```
DELETE FROM book
WHERE book_id= 789;
```

```
DROP TABLE borrows;
```

```
CREATE TABLE borrows (
mem_id NUMBER,
book_id NUMBER,
borrowed DATE,
returned DATE,
CONSTRAINT b_pk
PRIMARY KEY (mem_id,book_id),
CONSTRAINT b_fk1
FOREIGN KEY (mem_id)
REFERENCES member(mem_id) ON DELETE CASCADE,
CONSTRAINT b_fk2
FOREIGN KEY (book_id)
REFERENCES book(book_id) ON DELETE CASCADE
```

```
);  
INSERT INTO borrows values (1234, 789, to_date('04/10/2020','dd/mm/yyyy'),  
to_date('08/10/2020','dd/mm/yyyy'));
```

```
SELECT * FROM borrows;
```

```
SELECT mem_id FROM borrows WHERE returned - borrowed > 3 ;
```

```
SELECT borrows.mem_id, member.mem_name  
FROM borrows, member  
WHERE member.mem_id = borrows.mem_id  
AND returned - borrowed > 3 ;
```

```
SELECT b.mem_id, m.mem_name , book_name  
FROM borrows b, member m, book  
WHERE returned - borrowed > 3  
AND m.mem_id = b.mem_id  
AND book.book_id= b.book_id;
```