CREATE TABLE book

(book\_id varchar(15) not null,

title varchar(500) not null,

CONSTRAINT pk\_bookid PRIMARY KEY (book\_id)

);

CREATE TABLE book\_author

(book\_id varchar(15) not null,

author\_name varchar(100) not null,

CONSTRAINT pk\_bookid PRIMARY KEY (book\_id)

);

CREATE TABLE library\_branch

(

branch\_id int not null,

branch\_name varchar(50) not null,

address varchar(100),

CONSTRAINT pk\_branchid PRIMARY KEY (branch\_id)

);

CREATE TABLE book\_copies

(book\_id varchar(15) not null,

branch\_id int not null,

no\_of\_copies int(5),

CONSTRAINT pk\_bookid PRIMARY KEY (book\_id)

);

CREATE TABLE borrower

(card\_no int(5) not null,

fname varchar(25) not null,

lname varchar(25) not null,

address varchar(100),

phone varchar(12),

email varchar(50),

CONSTRAINT pk\_cardno PRIMARY KEY (card\_no)

);

CREATE TABLE book\_loans

(loan\_id int(5) UNIQUE auto\_increment,

book\_id varchar(15) not null,

branch\_id int not null,

card\_no int(5) not null,

date\_out date,

due\_date date,

date\_in date,

CONSTRAINT pk\_bookid PRIMARY KEY (book\_id),

CONSTRAINT uk\_branchid UNIQUE (branch\_id),

CONSTRAINT uk\_cardnumber UNIQUE (card\_no)

);

--Alter table book ADD constraint fk\_bookid FOREIGN KEY (book\_id) REFERENCES book\_copies (book\_id);

Alter table book\_copies DROP CONSTRAINT uk\_branchid;

Alter table book\_author ADD constraint fk\_bookid FOREIGN KEY (book\_id) REFERENCES book (book\_id);

Alter table book\_copies DROP PRIMARY KEY, ADD PRIMARY KEY (book\_id, branch\_id);

Alter table book\_copies ADD constraint fk\_branchid FOREIGN KEY (branch\_id) REFERENCES library\_branch (branch\_id);

Alter table book\_copies ADD constraint fk\_bookid\_2 FOREIGN KEY (book\_id) REFERENCES book (book\_id);

Alter table book\_loans ADD constraint fk\_branchid\_2 FOREIGN KEY (branch\_id) REFERENCES library\_branch (branch\_id);

Alter table book\_loans ADD constraint fk\_cardnumber FOREIGN KEY (card\_no) REFERENCES borrower (card\_no);

Alter table book\_loans ADD constraint fk\_bookid\_3 FOREIGN KEY (book\_id) REFERENCES book (book\_id);