

\*Note: The FOREIGN KEY syntax will be different in specific testing environment. If you use MySQL 5.6 to test the statement in <http://sqlfiddle.com/>, the ENGINE = MYISAM is needed to attach.

```
CREATE TABLE User
  (Username      VARCHAR(50)          NOT NULL,
   Password      VARCHAR(50)          NOT NULL,
   PRIMARY KEY (Username));

CREATE TABLE Customer
  (Username      VARCHAR(50)          NOT NULL,
   Email          VARCHAR(50)          NOT NULL,
   IsStudent      BOOLEAN              NOT NULL,
   PRIMARY KEY (Username),
   UNIQUE(Email),
   FOREIGN KEY (Username) REFERENCES User(Username));

CREATE TABLE Manager
  (Username      VARCHAR(50)          NOT NULL,
   PRIMARY KEY (Username),
   FOREIGN KEY (Username) REFERENCES User(Username));

CREATE TABLE PaymentInfo
  (CardNum       CHAR(16)              NOT NULL,
   CVV           CHAR(3)               NOT NULL,
   ExpirationDate DATE                 NOT NULL,
   NameOnCard    VARCHAR(50)           NOT NULL,
   Username      VARCHAR(50)           NOT NULL,
   PRIMARY KEY (CardNum),
   FOREIGN KEY (Username) REFERENCES Customer(Username));

CREATE TABLE Reservation
  (ReserveID     INT                    NOT NULL,
   IsCancelled    BOOLEAN               NOT NULL,
   Username      VARCHAR(50)           NOT NULL,
   CardNum       CHAR(16)               NOT NULL   DEFAULT
0000000000000000,
   PRIMARY KEY (ReserveID),
   FOREIGN KEY (Username) REFERENCES Customer(Username),
   FOREIGN KEY (CardNum) REFERENCES PaymentInfo(CardNum)
   ON DELETE SET DEFAULT);

CREATE TABLE TrainRoute
  (TrainNum      VARCHAR(25)           NOT NULL,
```

FstClassPrice	DECIMAL(6,2)	NOT NULL,
SndClassPrice	DECIMAL(6,2)	NOT NULL,
PRIMARY KEY (TrainNum));		

CREATE TABLE Reserve

(ReserveID	INT	NOT NULL,
TrainNum	VARCHAR(25)	NOT NULL,
Class	VARCHAR(10)	NOT NULL,
DepartureDate	DATE	NOT NULL,
PassengerName	VARCHAR(50)	NOT NULL,
NumOfBaggage	INT	NOT NULL,
DepartFrom	VARCHAR(50)	NOT NULL,
ArriveAt	VARCHAR(50)	NOT NULL,
PRIMARY KEY (ReserveID, TrainNum),		
FOREIGN KEY (ReserveID) REFERENCES Reservation(ReserveID),		
FOREIGN KEY (TrainNum) REFERENCES TrainRoute(TrainNum));		

CREATE TABLE Station

(StationName	VARCHAR(50)	NOT NULL,
Location	VARCHAR(50)	NOT NULL,
PRIMARY KEY (StationName));		

CREATE TABLE Stop

(TrainNum	VARCHAR(25)	NOT NULL,
StationName	VARCHAR(50)	NOT NULL,
ArrivalTime	TIMESTAMP	NOT NULL,
DepartureTime	TIMESTAMP	NOT NULL,
PRIMARY KEY (TrainNum, StationName),		
FOREIGN KEY (TrainNum) REFERENCES TrainRoute(TrainNum),		
FOREIGN KEY (StationName) REFERENCES Station(StationName));		

CREATE TABLE Review

(ReviewNum	INT	NOT NULL,
Comment	TEXT,	
Rating	VARCHAR(9)	NOT NULL,
Username	VARCHAR(50)	NOT NULL,
TrainNum	VARCHAR(50)	NOT NULL,
PRIMARY KEY (ReviewNum),		
FOREIGN KEY (Username) REFERENCES User(Username),		
FOREIGN KEY (TrainNum) REFERENCES TrainRoute(TrainNum));		

CREATE TABLE SystemInfo

(MaxNumOfBaggage	INT	NOT NULL,
NumOfFreeBaggage	INT	NOT NULL,

StudentDiscount        DECIMAL(3,2)        NOT NULL,  
ChangeFee               INT                NOT NULL,  
PRIMARY KEY (MaxNumOfBaggage),  
CHECK (MaxNumOfBaggage >=0 AND MaxNumOfBaggage <= 4));