

## CREATE TABLE STATEMENTS

/\* User Table \*/

```
CREATE TABLE User (  
  Username VARCHAR(20) PRIMARY KEY,  
  Password VARCHAR(20) NOT NULL,  
  Unique(Password)  
);
```

/\* Manager Table \*/

```
CREATE TABLE Manager (  
  Username VARCHAR(20) PRIMARY KEY,  
  FOREIGN KEY(Username) REFERENCES User(Username)  
);
```

/\* Customer Table \*/

```
CREATE TABLE Customer (  
  Username VARCHAR(20) PRIMARY KEY REFERENCES User(Username),  
  EmailAddress VARCHAR(50) NOT NULL,  
  IsStudent INT(1) DEFAULT 0,  
  UNIQUE(EmailAddress)  
);
```

/\* Card Table \*/

```
CREATE TABLE Card (  
  CardNumber BIGINT(16) PRIMARY KEY,  
  CVV INT(3) NOT NULL,  
  Name VARCHAR(100) NOT NULL,  
  ExpirationDate VARCHAR(7) NOT NULL,  
  Username VARCHAR(20) NOT NULL,  
  FOREIGN KEY(Username) REFERENCES Customer(Username)  
);
```

/\* Reservation Table \*/

```
CREATE TABLE Reservation (  
ReservationID INT(5) AUTO_INCREMENT PRIMARY KEY,  
NumUpdates INT(11) DEFAULT 0,  
CancellationDate DATE DEFAULT NULL,  
IsCancelled INT(1) DEFAULT 0,  
Username VARCHAR(20) NOT NULL,  
CardNumber BIGINT(16),  
FOREIGN KEY(Username) REFERENCES Customer(Username),  
FOREIGN KEY(CardNumber) REFERENCES Card(CardNumber)  
);
```

/\* Train Table \*/

```
CREATE TABLE Train (  
TrainNumber VARCHAR(50) PRIMARY KEY,  
1stClassPrice FLOAT(5,2),  
2ndClassPrice FLOAT(5,2)  
);
```

/\* Review Table \*/

```
CREATE TABLE Review (  
ReviewNum INT(5) AUTO_INCREMENT,  
Username VARCHAR(20),  
Rating VARCHAR(20) NOT NULL,  
Comment VARCHAR(250),  
TrainNumber VARCHAR(50) NOT NULL,  
PRIMARY KEY(ReviewNum,Username),  
FOREIGN KEY(TrainNumber) REFERENCES Train(TrainNumber),  
FOREIGN KEY (Username) REFERENCES Customer(Username)  
);
```

/\* Station Table \*/

```
CREATE TABLE Station (  
  Location VARCHAR (50),  
  StationName VARCHAR(50),  
  PRIMARY KEY (Location, StationName)  
);
```

/\* Route Table \*/

```
CREATE TABLE Route (  
  RouteNum INT (5) AUTO_INCREMENT,  
  Location VARCHAR (50),  
  StationName VARCHAR(50),  
  ArrivalTime TIME,  
  DepartureTime TIME,  
  PRIMARY KEY (RouteNum),  
  FOREIGN KEY (Location, StationName) REFERENCES Station(Location,StationName)  
);
```

/\* Takes Table \*/

```
CREATE TABLE Takes (  
  RouteNum INT(5),  
  TrainNumber VARCHAR(50),  
  PRIMARY KEY (RouteNum, TrainNumber),  
  FOREIGN KEY (RouteNum) REFERENCES Route(RouteNum),  
  FOREIGN KEY(TrainNumber) REFERENCES Train(TrainNumber)  
);
```

/\* Ticket Table \*/

```
CREATE TABLE Ticket (  
  TicketID INT(5) AUTO_INCREMENT,  
  ReservationID INT(5),  
  NumBags INT(1) NOT NULL,  
  DepartureDate DATE NOT NULL,  
  PassengerName VARCHAR(20) NOT NULL,
```

```
ArrivalRouteNum INT(5) NOT NULL,  
DepartureRouteNum INT(5) NOT NULL,  
Class VARCHAR(10),  
Price FLOAT(6,2),  
PRIMARY KEY (TicketID),  
FOREIGN KEY (ArrivalRouteNum) REFERENCES Route(RouteNum),  
FOREIGN KEY (DepartureRouteNum) REFERENCES Route(RouteNum),  
FOREIGN KEY (ReservationID) REFERENCES Reservation(ReservationID)  
);
```

```
/* System Table */  
CREATE TABLE System (  
MaxBags INT(1),  
FreeBags INT(1),  
SDiscount FLOAT(3,2),  
ChargeFee FLOAT(5,2),  
PRIMARY KEY (MaxBags)  
);
```