

Flight Reservation System

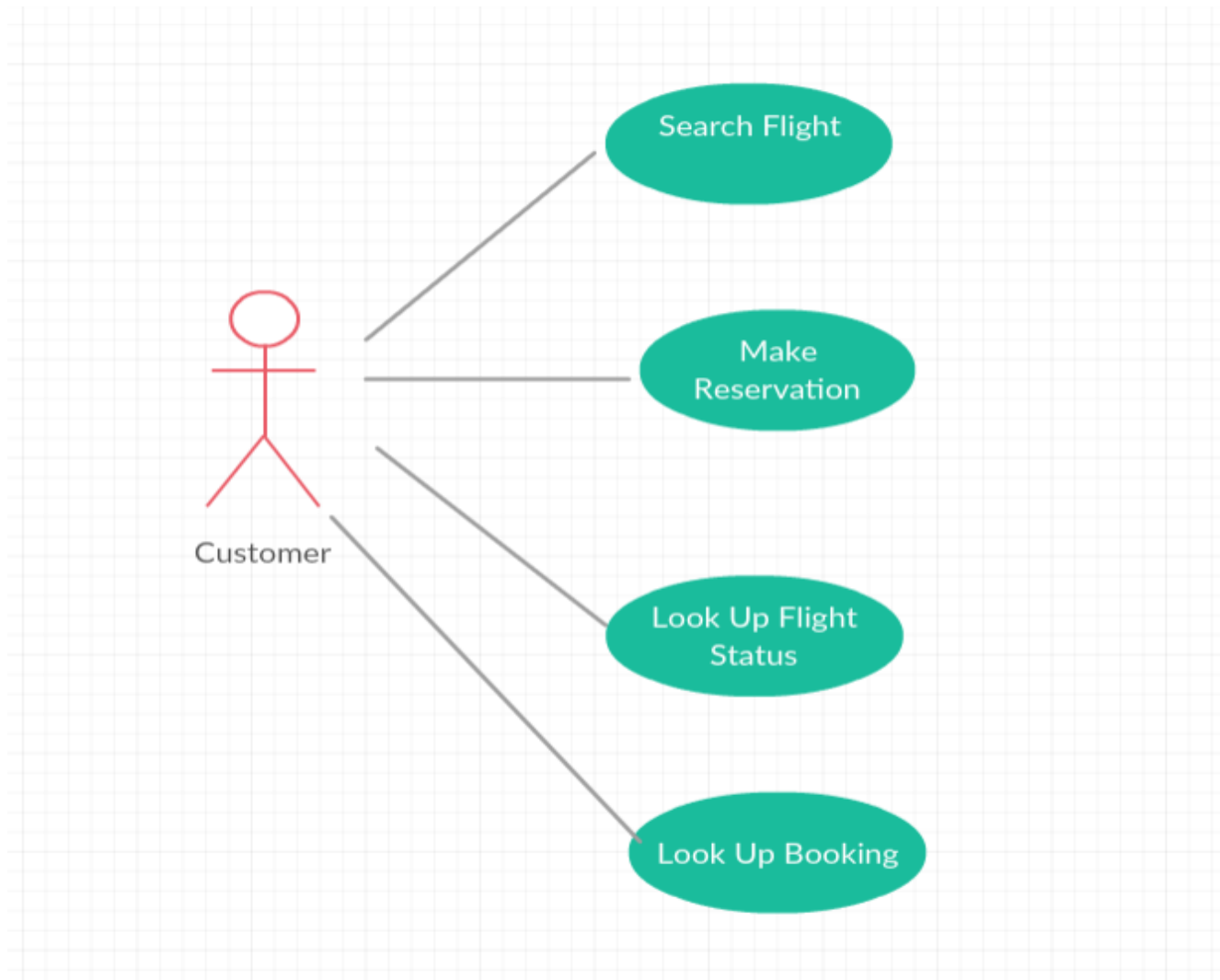
Shaowei Huang

001280229

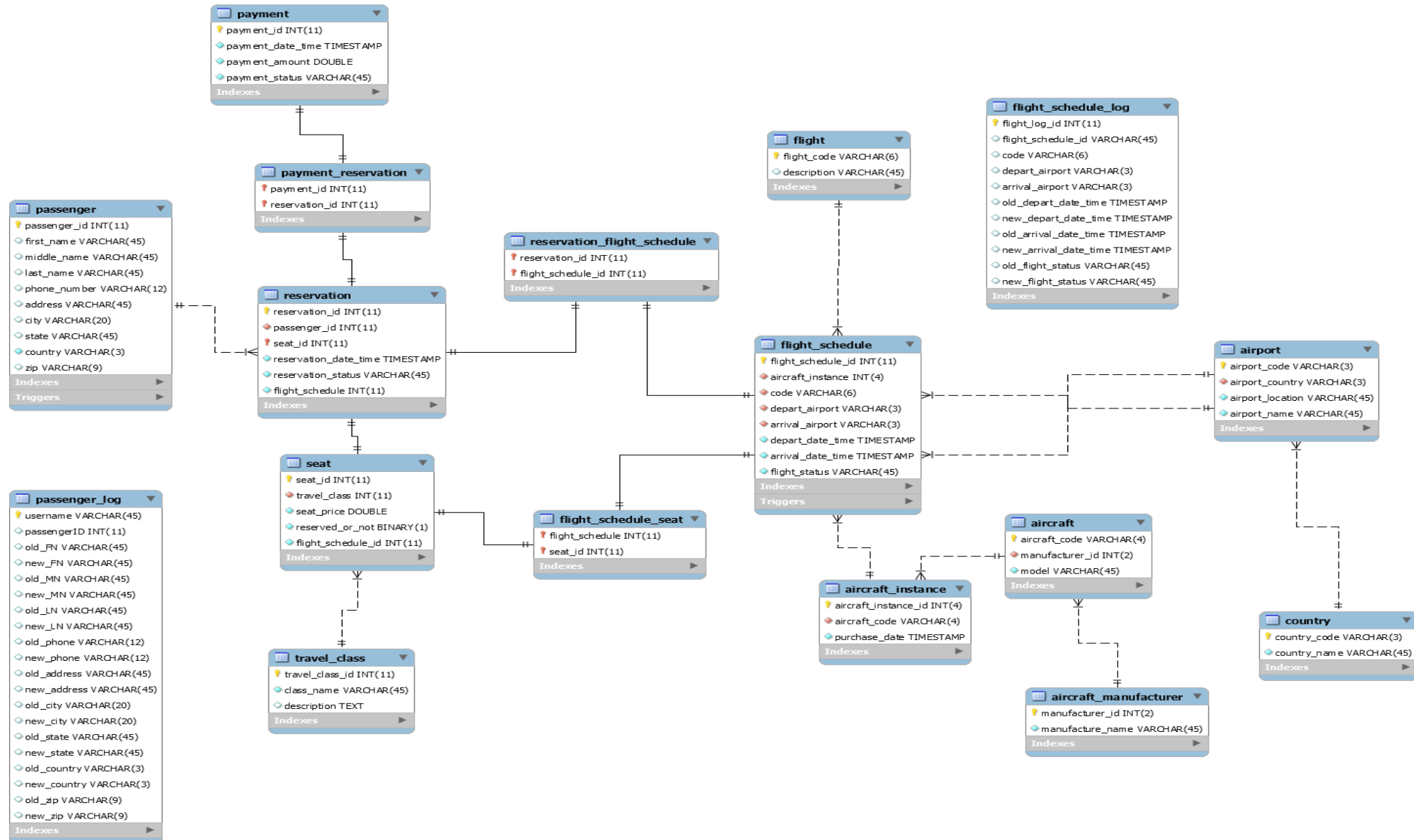
Project Description

- ▶ An airline reservation system.
- ▶ Customers can
 - ▶ Search for the flights that meet their needs and then book flights.
 - ▶ Check the flight status they reserved.
 - ▶ Book a flight seat
 - ▶ Look up reservation details
- ▶ The airline ticket booking system should present lists of flights to customers with their searching criteria, like departure/ arrival times, dates, travel classes, and other preferences.

Use-Case Diagram



EER Diagram



Stored Procedures

- ▶ FlightSearch
- ▶ MakeReservation
- ▶ MyBooking
- ▶ FlightStatusSearchByFightNum

FlightSearch ()

- ▶ FlightSearch (depart varchar(3), arrive varchar(3), depart_date timestamp, class int)
- ▶ Customers can enter their flight departure airport, arrival airport, the date they want to travel, and desired travel class to search for available seats.

FlightSearch (depart varchar(3), arrive varchar(3), depart_date timestamp, class int)

BEGIN

```
select fs.depart_airport as 'Depart From', fs.arrival_airport as 'Arrive At',  
date(fs.depart_date_time) as 'Departure Date',tc.class_name as 'Travel  
Class',s.seat_price as 'Price', fs.code as 'Flight Code', s.seat_id as 'Seat ID'
```

```
from ((flight_schedule as fs inner join flight_schedule_seat as fss on  
fs.flight_schedule_id = fss.flight_schedule_id)
```

```
inner join seat as s on s.seat_id = fss.seat_id)
```

```
inner join travel_class as tc on tc.travel_class_id = s.travel_class
```

```
where (fs.depart_airport = depart) and (fs.arrival_airport = arrive) and  
(date(fs.depart_date_time) = depart_date) and (s.travel_class = class) and  
(s.reserved_or_not = false);
```

END

MakeReservation()

- ▶ `MakeReservation(passengerID int ,seatID int)`
- ▶ Customers can enter their passenger ID and seat ID (which can be found after using stored procedures `FlightSearch()`) to reserved for the seat.

MakeReservation(passengerID int ,seatID int)

BEGIN

UPDATE seat set reserved_or_not = true where seat_id = seatID;

INSERT INTO reservation (`passenger_id`, `seat_id`, `flight_schedule`)
VALUES(passengerID, seatID, (SELECT flight_schedule FROM flight_schedule_seat AS
fss INNER JOIN seat ON fss.seat_id = seat.seat_id WHERE seat.seat_id = seatID));

SELECT s.seat_id AS 'Seat ID', 'Reserve Successfully!' AS 'Status', r.reservation_id AS
'Reservation ID'from seat AS s INNER JOIN reservation AS r on s.seat_id = r.seat_id
WHERE r.seat_id = seatID AND r.reservation_id = (select r.reservation_id WHERE
r.seat_id = seatID)

GROUP BY s.seat_id;

END

MyBooking()

- ▶ `MyBooking(reID int)`
- ▶ After making a reservation, customers can enter the reservation ID to see their booking details.

MyBooking(reID int)

```
SELECT r.reservation_id AS 'Reservation ID', r.seat_id AS 'Seat Num',  
CONCAT_WS(' ', p.first_name, p.middle_name, p.last_name) AS 'Passenger Name', tc.class_name  
AS 'Class', fs.code AS 'Flight Code', fs.depart_airport AS 'Departure Airport', fs.arrival_airport AS  
'Arrival Airport', fs.depart_date_time AS 'Scheduled Departure Time', fsl.new_depart_date_time  
AS 'New Departure Time', fs.arrival_date_time AS 'Scheduled Arrival Time',  
fsl.new_arrival_date_time AS 'New Arrival Time', fsl.new_flight_status AS 'Status'  
FROM (((((reservation AS r INNER JOIN seat AS s ON r.seat_id = s.seat_id)  
INNER JOIN travel_class AS tc on s.travel_class = tc.travel_class_id)  
INNER JOIN flight_schedule_seat AS fss ON s.seat_id = fss.seat_id)  
INNER JOIN flight_schedule AS fs ON fss.flight_schedule_id = fs.flight_schedule_id)  
INNER JOIN flight_schedule_log AS fsl ON fs.flight_schedule_id = fsl.flight_schedule_id)  
INNER JOIN passenger AS p ON r.passenger_id = p.passenger_id  
WHERE r.reservation_id= reID;  
END
```

FlightStatusSearchByFightNum ()

- ▶ FlightStatusSearchByFightNum (flightNum varchar(6))
- ▶ Customer can enter flight code of their flights to look up the status of the flight.

FlightStatusSearchByFightNum (flightNum varchar(6))

BEGIN

SELECT f.flight_code AS 'Flight Code', fs.depart_airport AS 'Departure Airport',
fs.arrival_airport AS 'Arrival Airport', fs.depart_date_time AS 'Scheduled Departure Time',
fsl.new_depart_date_time AS 'New Departure Time', fs.arrival_date_time AS 'Scheduled Arrival
Time', fsl.new_arrival_date_time AS 'New Arrival Time', fsl.new_flight_status AS 'Status'

FROM (flight_schedule AS fs

INNER JOIN flight_schedule_log AS fsl ON fs.flight_schedule_id = fsl.flight_schedule_id)

INNER JOIN flight AS f ON f.flight_code = fs.code

WHERE f.flight_code = flightNum;

END

Triggers

- ▶ Passenger_update
- ▶ Flight_schedule_update

passenger_update

- ▶ Each time updating passengers' information, it will automatically store the data before and after changing into **passenger_log** table.

passenger_update:

```
DELIMITER $$
```

```
CREATE TRIGGER `passenger_update`
```

```
AFTER UPDATE
```

```
ON `passenger`
```

```
FOR EACH ROW
```

```
BEGIN
```

```
INSERT INTO passenger_log
```

```
VALUES (user(), OLD.passenger_ID, OLD.first_name, NEW.first_name, OLD.middle_name,  
NEW.middle_name,old.last_name,new.last_name,old.phone_number,new.phone_number,ol  
d.address,new.address,old.city,new.city,old.state,new.city,old.country,new.country,old.zip,  
new.zip);
```

```
END;
```

```
$$
```


flight_schedule_update

- ▶ Flight status is changing over times.
- ▶ Every time modifying a specific flight schedule, it will automatically store the information before/ after into **flight_schedule_log** table.
- ▶ Thus, the customer can get the recent change of their flights.

flight_schedule_update

DELIMITER \$\$

CREATE TRIGGER `flight_schedule_update`

AFTER UPDATE

ON `flight_schedule`

FOR EACH ROW

BEGIN

INSERT INTO flight_schedule_log

(`flight_schedule_id`, `code`, `depart_airport`, `arrival_airport`, `old_depart_date_time`,
`new_depart_date_time`, `old_arrival_date_time`, `new_arrival_date_time`, `old_flight_status`,
`new_flight_status`)

VALUES (old.flight_schedule_id, old.code, old.depart_airport, old.arrival_airport,
old.depart_date_time, new.depart_date_time, old.arrival_date_time,
new.arrival_date_time, old.flight_status, new.flight_status);

END;

\$\$

```
-- MySQL dump 10.13 Distrib 5.7.17, for Win64 (x86_64)
--
-- Host: localhost Database: finalproject
-- -----
-- Server version 5.7.17-log

/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
/*!40101 SET NAMES utf8 */;
/*!40103 SET @OLD_TIME_ZONE=@@TIME_ZONE */;
/*!40103 SET TIME_ZONE='+00:00' */;
/*!40014 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */;
/*!40014 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */;
/*!40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */;
/*!40111 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;

--
-- Table structure for table `aircraft`
--

DROP TABLE IF EXISTS `aircraft`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `aircraft` (
  `aircraft_code` varchar(4) NOT NULL,
  `manufacturer_id` int(2) NOT NULL,
  `model` varchar(45) NOT NULL,
  PRIMARY KEY (`aircraft_code`),
  KEY `aircraft_manufacture_id_idx` (`manufacturer_id`),
  CONSTRAINT `aircraft_manufacture_id` FOREIGN KEY (`manufacturer_id`) REFERENCES `aircraft_manufacturer`
  (`manufacturer_id`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--  
-- Dumping data for table `aircraft`  
--
```

```
LOCK TABLES `aircraft` WRITE;  
/*!40000 ALTER TABLE `aircraft` DISABLE KEYS */;  
INSERT INTO `aircraft` VALUES ('A388',2,'Airbus A380-800'),('B737',1,'Boeing 737-700'),('B748',1,'Boeing 747-8'),('B77W',1,'Boeing 777-300ER');  
/*!40000 ALTER TABLE `aircraft` ENABLE KEYS */;  
UNLOCK TABLES;
```

```
--  
-- Table structure for table `aircraft_instance`  
--
```

```
DROP TABLE IF EXISTS `aircraft_instance`;  
/*!40101 SET @saved_cs_client = @@character_set_client */;  
/*!40101 SET character_set_client = utf8 */;  
CREATE TABLE `aircraft_instance` (  
  `aircraft_instance_id` int(4) NOT NULL,  
  `aircraft_code` varchar(4) NOT NULL,  
  `purchase_date` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE  
CURRENT_TIMESTAMP,  
  PRIMARY KEY (`aircraft_instance_id`),  
  KEY `code_idx` (`aircraft_code`),  
  CONSTRAINT `code` FOREIGN KEY (`aircraft_code`) REFERENCES `aircraft`  
(`aircraft_code`) ON DELETE NO ACTION ON UPDATE NO ACTION  
) ENGINE=InnoDB DEFAULT CHARSET=utf8;  
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--
-- Dumping data for table `aircraft_instance`
--

LOCK TABLES `aircraft_instance` WRITE;
/*!40000 ALTER TABLE `aircraft_instance` DISABLE KEYS */;
INSERT INTO `aircraft_instance` VALUES (1,'A388','2008-08-05 22:19:03'),(2,'B737','2002-03-12
04:00:00'),(3,'B748','2010-12-11 05:00:00'),(4,'B77W','2010-04-15 04:00:00');
/*!40000 ALTER TABLE `aircraft_instance` ENABLE KEYS */;
UNLOCK TABLES;

--
-- Table structure for table `aircraft_manufacturer`
--

DROP TABLE IF EXISTS `aircraft_manufacturer`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `aircraft_manufacturer` (
  `manufacturer_id` int(2) NOT NULL,
  `manufacture_name` varchar(45) NOT NULL,
  PRIMARY KEY (`manufacturer_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `aircraft_manufacturer`
--

LOCK TABLES `aircraft_manufacturer` WRITE;
/*!40000 ALTER TABLE `aircraft_manufacturer` DISABLE KEYS */;
INSERT INTO `aircraft_manufacturer` VALUES (1,'Boeing Commercial Airplanes'),(2,'Airbus');
/*!40000 ALTER TABLE `aircraft_manufacturer` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `airport`
--

DROP TABLE IF EXISTS `airport`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `airport` (
  `airport_code` varchar(3) NOT NULL,
  `airport_country` varchar(3) NOT NULL,
  `airport_location` varchar(45) NOT NULL,
  `airport_name` varchar(45) NOT NULL,
  PRIMARY KEY (`airport_code`),
  KEY `country_FK_idx` (`airport_country`),
  CONSTRAINT `country_FK` FOREIGN KEY (`airport_country`) REFERENCES `country`
(`country_code`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `airport`
--

LOCK TABLES `airport` WRITE;
/*!40000 ALTER TABLE `airport` DISABLE KEYS */;
INSERT INTO `airport` VALUES ('HND','JPN','Tokyo, Japan','Tokyo International
Airport'),('LHR','GBR','London, United Kingdom','London Heathrow
Airport'),('ORD','USA','Chicago, United States','Chicago O'Hare International
Airport'),('PEK','CHN','Beijing, China','Beijing Capital International Airport'),('TPE','TWN','Taipei,
Taiwan','Taiwan Taoyuan International Airport');
/*!40000 ALTER TABLE `airport` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `country`
--

DROP TABLE IF EXISTS `country`;
/*!40101 SET @saved_cs_client      = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `country` (
  `country_code` varchar(3) NOT NULL,
  `country_name` varchar(45) NOT NULL,
  PRIMARY KEY (`country_code`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `country`
--

LOCK TABLES `country` WRITE;
/*!40000 ALTER TABLE `country` DISABLE KEYS */;
INSERT INTO `country` VALUES ('CHN','China'),('GBR','United
Kingdom'),('JPN','Japan'),('TWN','Taiwan'),('USA','United States of America');
/*!40000 ALTER TABLE `country` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `flight`
--

DROP TABLE IF EXISTS `flight`;
/*!40101 SET @saved_cs_client      = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `flight` (
  `flight_code` varchar(6) NOT NULL,
  `description` varchar(45) DEFAULT NULL,
  PRIMARY KEY (`flight_code`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `flight`
--

LOCK TABLES `flight` WRITE;
/*!40000 ALTER TABLE `flight` DISABLE KEYS */;
INSERT INTO `flight` VALUES ('NH011',''),('NH111','');
/*!40000 ALTER TABLE `flight` ENABLE KEYS */;
UNLOCK TABLES;
```



```
--
-- Table structure for table `flight_schedule`
--

DROP TABLE IF EXISTS `flight_schedule`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `flight_schedule` (
  `flight_schedule_id` int(11) NOT NULL,
  `aircraft_instance` int(4) NOT NULL,
  `code` varchar(6) NOT NULL,
  `depart_airport` varchar(3) NOT NULL,
  `arrival_airport` varchar(3) NOT NULL,
  `depart_date_time` timestamp NOT NULL DEFAULT '0000-00-00 00:00:00',
  `arrival_date_time` timestamp NOT NULL DEFAULT '0000-00-00 00:00:00',
  `flight_status` varchar(45) NOT NULL DEFAULT 'ON TIME',
  PRIMARY KEY (`flight_schedule_id`),
  KEY `code_idx` (`code`),
  KEY `instance_FK_idx` (`aircraft_instance`),
  KEY `depart_FK_idx` (`depart_airport`),
  KEY `arrival_FK_idx` (`arrival_airport`),
  CONSTRAINT `arrival_FK` FOREIGN KEY (`arrival_airport`) REFERENCES `airport` (`airport_code`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `code_FK` FOREIGN KEY (`code`) REFERENCES `flight` (`flight_code`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `depart_FK` FOREIGN KEY (`depart_airport`) REFERENCES `airport` (`airport_code`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `instance_FK` FOREIGN KEY (`aircraft_instance`) REFERENCES `aircraft_instance` (`aircraft_instance_id`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;
```

```

--
-- Dumping data for table `flight_schedule`
--

LOCK TABLES `flight_schedule` WRITE;
/*!40000 ALTER TABLE `flight_schedule` DISABLE KEYS */;
INSERT INTO `flight_schedule` VALUES (1,4,'NH111','ORD','HND','2017-05-03 04:01:00','2017-
05-05 00:30:00','DELAY'),(2,4,'NH011','HND','ORD','2017-05-05 14:30:00','2017-05-10
23:45:00','ON TIME');
/*!40000 ALTER TABLE `flight_schedule` ENABLE KEYS */;
UNLOCK TABLES;
/*!50003 SET @saved_cs_client      = @@character_set_client */ ;
/*!50003 SET @saved_cs_results    = @@character_set_results */ ;
/*!50003 SET @saved_col_connection = @@collation_connection */ ;
/*!50003 SET character_set_client  = utf8 */ ;
/*!50003 SET character_set_results = utf8 */ ;
/*!50003 SET collation_connection  = utf8_general_ci */ ;
/*!50003 SET @saved_sql_mode      = @@sql_mode */ ;
/*!50003 SET sql_mode              =
'STRICT_TRANS_TABLES,NO_AUTO_CREATE_USER,NO_ENGINE_SUBSTITUTION' */ ;
DELIMITER ;;
/*!50003 CREATE*/ /*!50017 DEFINER=`root`@`localhost`*/ /*!50003 trigger
`flight_schedule_update`
after update on `flight_schedule`
    for each row
begin
    insert into
flight_schedule_log(`flight_schedule_id`,`code`,`depart_airport`,`arrival_airport`,`old_dep
art_date_time`,`new_depart_date_time`,`old_arrival_date_time`,`new_arrival_date_time`,
`old_flight_status`,`new_flight_status`)
    values (old.flight_schedule_id, old.code, old.depart_airport, old.arrival_airport,
old.depart_date_time, new.depart_date_time, old.arrival_date_time,
new.arrival_date_time,old.flight_status, new.flight_status);
end */;;
DELIMITER ;
/*!50003 SET sql_mode              = @saved_sql_mode */ ;
/*!50003 SET character_set_client  = @saved_cs_client */ ;
/*!50003 SET character_set_results = @saved_cs_results */ ;
/*!50003 SET collation_connection  = @saved_col_connection */ ;

```

```

--
-- Table structure for table `flight_schedule_log`
--

DROP TABLE IF EXISTS `flight_schedule_log`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `flight_schedule_log` (
  `flight_log_id` int(11) NOT NULL AUTO_INCREMENT,
  `flight_schedule_id` varchar(45) DEFAULT NULL,
  `code` varchar(6) DEFAULT NULL,
  `depart_airport` varchar(3) DEFAULT NULL,
  `arrival_airport` varchar(3) DEFAULT NULL,
  `old_depart_date_time` timestamp NULL DEFAULT NULL,
  `new_depart_date_time` timestamp NULL DEFAULT NULL,
  `old_arrival_date_time` timestamp NULL DEFAULT NULL,
  `new_arrival_date_time` timestamp NULL DEFAULT NULL,
  `old_flight_status` varchar(45) DEFAULT NULL,
  `new_flight_status` varchar(45) DEFAULT NULL,
  PRIMARY KEY (`flight_log_id`)
) ENGINE=InnoDB AUTO_INCREMENT=9 DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `flight_schedule_log`
--

LOCK TABLES `flight_schedule_log` WRITE;
/*!40000 ALTER TABLE `flight_schedule_log` DISABLE KEYS */;
INSERT INTO `flight_schedule_log` VALUES (6,'1','NH111','ORD','HND','2017-04-18
19:28:33','2017-05-03 04:00:00','2017-05-05 00:30:00','2017-05-05 00:30:00','ON TIME','ON
TIME'),(7,'1','NH111','ORD','HND','2017-05-03 04:00:00','2017-05-03 04:01:00','2017-05-05
00:30:00','2017-05-05 00:30:00','ON TIME','ON TIME'),(8,'1','NH111','ORD','HND','2017-05-03
04:01:00','2017-05-03 04:01:00','2017-05-05 00:30:00','2017-05-05 00:30:00','ON TIME','DELAY');
/*!40000 ALTER TABLE `flight_schedule_log` ENABLE KEYS */;
UNLOCK TABLES;

```

```
--
-- Table structure for table `flight_schedule_seat`
--

DROP TABLE IF EXISTS `flight_schedule_seat`;
/*!40101 SET @saved_cs_client      = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `flight_schedule_seat` (
  `flight_schedule_id` int(11) NOT NULL,
  `seat_id` int(11) NOT NULL,
  PRIMARY KEY (`flight_schedule_id`,`seat_id`),
  KEY `seat_FK_idx` (`seat_id`),
  CONSTRAINT `flight_schedule_FK` FOREIGN KEY (`flight_schedule_id`) REFERENCES
`flight_schedule` (`flight_schedule_id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `seat_FK` FOREIGN KEY (`seat_id`) REFERENCES `seat` (`seat_id`) ON DELETE
NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `flight_schedule_seat`
--

LOCK TABLES `flight_schedule_seat` WRITE;
/*!40000 ALTER TABLE `flight_schedule_seat` DISABLE KEYS */;
INSERT INTO `flight_schedule_seat` VALUES (1,1),(1,2),(1,3),(2,4),(1,5),(2,6);
/*!40000 ALTER TABLE `flight_schedule_seat` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--  
-- Table structure for table `passenger`  
--
```

```
DROP TABLE IF EXISTS `passenger`;  
/*!40101 SET @saved_cs_client = @@character_set_client */;  
/*!40101 SET character_set_client = utf8 */;  
CREATE TABLE `passenger` (  
  `passenger_id` int(11) NOT NULL,  
  `first_name` varchar(45) DEFAULT NULL,  
  `middle_name` varchar(45) DEFAULT NULL,  
  `last_name` varchar(45) DEFAULT NULL,  
  `phone_number` varchar(12) DEFAULT NULL,  
  `address` varchar(45) DEFAULT NULL,  
  `city` varchar(20) DEFAULT NULL,  
  `state` varchar(45) DEFAULT NULL,  
  `country` varchar(3) NOT NULL,  
  `zip` varchar(9) DEFAULT NULL,  
  PRIMARY KEY (`passenger_id`),  
  KEY `country_FK_idx` (`country`)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8;  
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--  
-- Dumping data for table `passenger`  
--
```

```
LOCK TABLES `passenger` WRITE;  
/*!40000 ALTER TABLE `passenger` DISABLE KEYS */;  
INSERT INTO `passenger` VALUES (1,'Michael','Jeffrey','Jordon','111111111','1901 W Madison  
St','Chicago','Illinois','USA','60601'),(2,'Donald','John','Trump','321456987456','1600 Pennsylvania  
Ave NW','Washington','DC','USA','20500'),(3,'Miu','','Hirano','787878945612','4 Chome-2-8  
Shibakoen','Minato','Tokyo','JPN','105-0011');  
/*!40000 ALTER TABLE `passenger` ENABLE KEYS */;  
UNLOCK TABLES;
```

```
/*!50003 SET @saved_cs_client      = @@character_set_client */ ;
/*!50003 SET @saved_cs_results     = @@character_set_results */ ;
/*!50003 SET @saved_col_connection = @@collation_connection */ ;
/*!50003 SET character_set_client  = utf8 */ ;
/*!50003 SET character_set_results = utf8 */ ;
/*!50003 SET collation_connection  = utf8_general_ci */ ;
/*!50003 SET @saved_sql_mode       = @@sql_mode */ ;
/*!50003 SET sql_mode              =
'STRICT_TRANS_TABLES,NO_AUTO_CREATE_USER,NO_ENGINE_SUBSTITUTION' */ ;
DELIMITER ;;
/*!50003 CREATE*/ /*!50017 DEFINER=`root`@`localhost`*/ /*!50003 TRIGGER
`passenger_update`
AFTER UPDATE
ON `passenger`
FOR EACH ROW
BEGIN
    INSERT INTO passenger_log
    values(user(), OLD.passenger_ID, OLD.first_name, NEW.first_name, OLD.middle_name,
NEW.middle_name,old.last_name,new.last_name,old.phone_number,new.phone_number,old
.address,new.address,old.city,new.city,old.state,new.city,old.country,new.country,old.zip,n
ew.zip);
END */;;
DELIMITER ;
/*!50003 SET sql_mode              = @saved_sql_mode */ ;
/*!50003 SET character_set_client  = @saved_cs_client */ ;
/*!50003 SET character_set_results = @saved_cs_results */ ;
/*!50003 SET collation_connection = @saved_col_connection */ ;
```

```
--
-- Table structure for table `passenger_log`
--

DROP TABLE IF EXISTS `passenger_log`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `passenger_log` (
  `username` varchar(45) NOT NULL,
  `passengerID` int(11) DEFAULT NULL,
  `old_FN` varchar(45) DEFAULT NULL,
  `new_FN` varchar(45) DEFAULT NULL,
  `old_MN` varchar(45) DEFAULT NULL,
  `new_MN` varchar(45) DEFAULT NULL,
  `old_LN` varchar(45) DEFAULT NULL,
  `new_LN` varchar(45) DEFAULT NULL,
  `old_phone` varchar(12) DEFAULT NULL,
  `new_phone` varchar(12) DEFAULT NULL,
  `old_address` varchar(45) DEFAULT NULL,
  `new_address` varchar(45) DEFAULT NULL,
  `old_city` varchar(20) DEFAULT NULL,
  `new_city` varchar(20) DEFAULT NULL,
  `old_state` varchar(45) DEFAULT NULL,
  `new_state` varchar(45) DEFAULT NULL,
  `old_country` varchar(3) DEFAULT NULL,
  `new_country` varchar(3) DEFAULT NULL,
  `old_zip` varchar(9) DEFAULT NULL,
  `new_zip` varchar(9) DEFAULT NULL,
  PRIMARY KEY (`username`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `passenger_log`
--

LOCK TABLES `passenger_log` WRITE;
/*!40000 ALTER TABLE `passenger_log` DISABLE KEYS */;
INSERT INTO `passenger_log` VALUES ('root@localhost',1,'Michael','Michael','Jeffrey','Jeffrey','Jordon','Jordon','000000000','111111111','1901 W Madison St','1901 W Madison St','Chicago','Chicago','Illinois','Chicago','USA','USA','60601','60601');
/*!40000 ALTER TABLE `passenger_log` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `payment`
--

DROP TABLE IF EXISTS `payment`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `payment` (
  `payment_id` int(11) NOT NULL,
  `payment_date_time` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
  `payment_amount` double NOT NULL,
  `payment_status` varchar(45) NOT NULL DEFAULT 'Pending',
  PRIMARY KEY (`payment_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `payment`
--

LOCK TABLES `payment` WRITE;
/*!40000 ALTER TABLE `payment` DISABLE KEYS */;
INSERT INTO `payment` VALUES (1,'2017-01-02 17:01:59',1500,'Pending'),(2,'2017-02-02
18:11:55',1100,'Pending'),(3,'2017-02-03 00:01:01',1500,'Pending');
/*!40000 ALTER TABLE `payment` ENABLE KEYS */;
UNLOCK TABLES;
```



```
--
-- Table structure for table `payment_reservation`
--

DROP TABLE IF EXISTS `payment_reservation`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `payment_reservation` (
  `payment_id` int(11) NOT NULL,
  `reservation_id` int(11) NOT NULL,
  PRIMARY KEY (`payment_id`,`reservation_id`),
  KEY `reservation_FK_idx` (`reservation_id`),
  CONSTRAINT `payment_FK` FOREIGN KEY (`payment_id`) REFERENCES `payment`
(`payment_id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `reservation_FK` FOREIGN KEY (`reservation_id`) REFERENCES `reservation`
(`reservation_id`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `payment_reservation`
--

LOCK TABLES `payment_reservation` WRITE;
/*!40000 ALTER TABLE `payment_reservation` DISABLE KEYS */;
INSERT INTO `payment_reservation` VALUES (3,1),(2,2),(1,3);
/*!40000 ALTER TABLE `payment_reservation` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--  
-- Table structure for table `reservation`  
--
```

```
DROP TABLE IF EXISTS `reservation`;  
/*!40101 SET @saved_cs_client      = @@character_set_client */;  
/*!40101 SET character_set_client = utf8 */;  
CREATE TABLE `reservation` (  
  `reservation_id` int(11) NOT NULL,  
  `passenger_id` int(11) NOT NULL,  
  `seat_id` int(11) NOT NULL,  
  `reservation_date_time` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE  
CURRENT_TIMESTAMP,  
  `reservation_status` varchar(45) NOT NULL DEFAULT 'Confirmed',  
  `flight_schedule` int(11) NOT NULL,  
  PRIMARY KEY (`reservation_id`, `seat_id`),  
  UNIQUE KEY `passenger_id_UNIQUE` (`passenger_id`),  
  KEY `passenger_id_idx` (`passenger_id`),  
  KEY `flight_schedule_re_FK_idx` (`flight_schedule`),  
  KEY `seat_FK_idx` (`seat_id`),  
  KEY `seat_idx` (`seat_id`),  
  CONSTRAINT `passenger_FK` FOREIGN KEY (`passenger_id`) REFERENCES `passenger`  
(`passenger_id`) ON DELETE NO ACTION ON UPDATE NO ACTION,  
  CONSTRAINT `seat` FOREIGN KEY (`seat_id`) REFERENCES `seat` (`seat_id`) ON DELETE NO  
ACTION ON UPDATE NO ACTION  
) ENGINE=InnoDB DEFAULT CHARSET=utf8;  
/*!40101 SET character_set_client = @saved_cs_client */;
```

```
--  
-- Dumping data for table `reservation`  
--
```

```
LOCK TABLES `reservation` WRITE;  
/*!40000 ALTER TABLE `reservation` DISABLE KEYS */;  
INSERT INTO `reservation` VALUES (1,1,1,'2017-01-01 05:00:00','',0),(2,2,2,'2017-02-01  
05:00:00','',0),(3,3,5,'2017-02-01 05:00:00','',0);  
/*!40000 ALTER TABLE `reservation` ENABLE KEYS */;  
UNLOCK TABLES;
```

```
--
-- Table structure for table `reservation_flight_schedule`
--

DROP TABLE IF EXISTS `reservation_flight_schedule`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `reservation_flight_schedule` (
  `reservation_id` int(11) NOT NULL,
  `flight_schedule_id` int(11) NOT NULL,
  PRIMARY KEY (`reservation_id`, `flight_schedule_id`),
  KEY `flight_sch_FK_idx` (`flight_schedule_id`),
  CONSTRAINT `flight_sch_FK` FOREIGN KEY (`flight_schedule_id`) REFERENCES
`flight_schedule` (`flight_schedule_id`) ON DELETE NO ACTION ON UPDATE NO ACTION,
  CONSTRAINT `re_FK` FOREIGN KEY (`reservation_id`) REFERENCES `reservation`
(`reservation_id`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `reservation_flight_schedule`
--

LOCK TABLES `reservation_flight_schedule` WRITE;
/*!40000 ALTER TABLE `reservation_flight_schedule` DISABLE KEYS */;
/*!40000 ALTER TABLE `reservation_flight_schedule` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `seat`
--

DROP TABLE IF EXISTS `seat`;
/*!40101 SET @saved_cs_client      = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `seat` (
  `seat_id` int(11) NOT NULL,
  `travel_class` int(11) NOT NULL,
  `seat_price` double NOT NULL,
  `reserved_or_not` binary(1) NOT NULL DEFAULT '0',
  `flight_schedule_id` int(11) NOT NULL,
  PRIMARY KEY (`seat_id`),
  KEY `class_FK_idx` (`travel_class`),
  KEY `flight_schedule_seat_idx` (`flight_schedule_id`),
  CONSTRAINT `class_FK` FOREIGN KEY (`travel_class`) REFERENCES `travel_class`
(`travel_class_id`) ON DELETE NO ACTION ON UPDATE NO ACTION
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `seat`
--

LOCK TABLES `seat` WRITE;
/*!40000 ALTER TABLE `seat` DISABLE KEYS */;
INSERT INTO `seat` VALUES
(1,1,1500,'1',0),(2,2,1100,'0',0),(3,3,750,'\0',0),(4,3,750,'\0',0),(5,1,1500,'0',0),(6,2,1100,'\0',0),
(7,3,750,'\0',0),(8,3,750,'\0',0),(9,3,750,'\0',0);
/*!40000 ALTER TABLE `seat` ENABLE KEYS */;
UNLOCK TABLES;
```

```
--
-- Table structure for table `travel_class`
--

DROP TABLE IF EXISTS `travel_class`;
/*!40101 SET @saved_cs_client = @@character_set_client */;
/*!40101 SET character_set_client = utf8 */;
CREATE TABLE `travel_class` (
  `travel_class_id` int(11) NOT NULL,
  `class_name` varchar(45) NOT NULL,
  `description` text,
  PRIMARY KEY (`travel_class_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8;
/*!40101 SET character_set_client = @saved_cs_client */;

--
-- Dumping data for table `travel_class`
--

LOCK TABLES `travel_class` WRITE;
/*!40000 ALTER TABLE `travel_class` DISABLE KEYS */;
INSERT INTO `travel_class` VALUES (1,'First Class',''),(2,'Business Class',''),(3,'Economy
Class','');
/*!40000 ALTER TABLE `travel_class` ENABLE KEYS */;
UNLOCK TABLES;
/*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;

/*!40101 SET SQL_MODE=@OLD_SQL_MODE */;
/*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;
/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
/*!40111 SET SQL_NOTES=@OLD_SQL_NOTES */;
```

```
-- Dump completed on 2017-04-21 10:39:03
```